

Marcus B. Perry

Assistant Professor of Statistics
Department of Information Systems, Statistics, and Management Science
The University of Alabama
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EDUCATION

Ph.D., Industrial Engineering, Florida State University, 2004
Dissertation: *Robust Change Detection and Change Point Estimation for Poisson Count Processes*
Advisor: Prof. Joseph J. Pignatiello, Jr.

M.S., Manufacturing Systems, Southern Illinois University, 2000
Thesis: *Control Chart Pattern Recognition using Back Propagation Artificial Neural Networks*
Advisor: Dr. Julie K. Spoerre

B.S., Industrial Technology, Southern Illinois University, 1998
Minor: Management

EXPERIENCE

August 2008-present: *Assistant Professor of Statistics*, Department of Information Systems, Statistics, and Management Science, The University of Alabama, Tuscaloosa, AL.

August 2007-August 2008: *Assistant Professor*, Department of Industrial & Systems Engineering, Florida International University, Miami, FL.

June 2004-August 2007: *Assistant Professor of Operations Research*, Department of Operational Sciences, Graduate School of Engineering and Management, Air Force Institute of Technology, Wright-Patterson Air Force Base, OH.

January 2004-May 2004: *Adjunct Instructor*, Department of Industrial and Manufacturing Engineering, Florida State University, Tallahassee, FL.

December 2002-May 2004: *Research Assistant*, Department of Industrial and Manufacturing Engineering, Florida State University, Tallahassee, FL.

July 2002-August 2002: *Adjunct Instructor*, Southern Illinois University Outreach, Hurlburt Field Air Force Base, FL.

August 2000-May 2001: *Instructor*, Southeast Missouri State University, Department of Industrial and Engineering Technology, Cape Girardeau, MO.

May 1996-May 2000: *Operations Engineer*, Material Service Corporation, Athens, IL.

RESEARCH

Publications

Refereed Journal Articles (Published or In-Press)

1. **Perry, M. B.**, Mercado, G. R. and Simpson, J. R., "On the Analysis of Balanced Two-Level Factorial Whole-Plot Saturated Split-Plot Designs," to appear in *Quality and Reliability Engineering International*.
2. **Perry, M. B.**, Kharoufeh, J. P., Shekhar, S., Cai, J., and Shankar, M. R. (2011), "Statistical Characterization of Nanostructured Materials from Severe Plastic Deformation in Machining," *IIE Transactions* (Special Issue on Quality, Sensing and Prognostics Issues in Nanomanufacturing), DOI:10.1080/0740817X.2011.596509.
3. **Perry, M. B.** and Pignatiello, J. J., Jr. (2012), "Identifying the Time of Change in the Mean of a Two-Stage Nested Process," *Journal of Applied Statistics*, 39(2), pp. 419-433.
4. Mercado, G. R., Conerly, M.D. and **Perry, M. B.** (2011), "Phase I Control Chart based on a Kernel Estimator of the Quantile Function," *Quality and Reliability Engineering International*, 27(8), pp. 1131-1144.
5. **Perry, M. B.**, Mercado, G. R., and Pignatiello, J. J., Jr. (2011), "Phase II Monitoring of Covariance Stationary Autocorrelated Processes," *Quality and Reliability Engineering International*, 27(1), pp. 35-45.
6. **Perry, M. B.** and Pignatiello, J. J., Jr. (2011), "Estimating the Time of Step Change with Poisson CUSUM and EWMA Control Charts," *International Journal of Production Research*, 49(10), pp. 2857-2871.
7. **Perry, M. B.** (2010), "Identifying the Time of Polynomial Drift in the Mean of Autocorrelated Processes," *Quality and Reliability Engineering International*, 25(5), pp. 399-415.
8. **Perry, M. B.** and Pignatiello, J. J., Jr. (2010) "Identifying the Time of Step Change in the Mean of Autocorrelated Processes," *Journal of Applied Statistics*, 37(1), pp. 119-136.
9. Artelli, M. J., Deckro, R. F., Zalewski, D. J., Leach, S. E., and **Perry, M. B.** (2010), "A Control Theory Model of Deployed Soldiers' Moral," *International Journal of Operational Research*, 7(1), pp. 31-53.
10. Artelli, M. J., Deckro, R. F., Zalewski, D. J., Leach, S. E., and **Perry, M. B.** (2009), "A Dynamic Approach for Modeling Elements of Modern Conflict," *Military Operations Research*, 14(2), pp. 51-74.
11. Jordan, J. D., Melouk, S. H., and **Perry, M. B.** (2009), "Optimizing Football Game Play Calling," *Journal of Quantitative Analysis in Sports*, 5(2), Article 2.
12. **Perry, M. B.** and Pignatiello, J.J., Jr. (2008), "A Change Point Model for the Location Parameter of Exponential Family Densities," *IIE Transactions*. 40:(10), pp. 947-956.
13. **Perry, M. B.**, Pignatiello, J. J., Jr. and Simpson, J. R. (2007), "A Magnitude-Robust Control Chart for Monitoring and Estimating Step Changes in a Poisson Rate Parameter," *International Journal of Reliability, Quality and Safety Engineering*. 14:(1), pp. 1-20.
14. **Perry, M. B.**, Pignatiello, J. J., Jr. and Simpson, J. R. (2007), "Change Point Estimation for Monotonically Changing Poisson Rates in SPC," *International Journal of Production Research* 45(8), pp. 1791-1813.

15. **Perry, M. B.**, Pignatiello, J. J., Jr. and Simpson, J. R. (2007), "Estimation of the Change Point of the Process Fraction Nonconforming with a Monotonic Change Disturbance in SPC," *Quality and Reliability Engineering International* **23**:(3), pp. 327-339.
16. **Perry, M. B.** and Pignatiello, J. J., Jr. (2006), "Estimation of the Change Point of a Normal Process Mean with a Linear Trend Disturbance in SPC," *Quality Technology and Quantitative Management* **3**:(3), pp. 325-334.
17. **Perry, M. B.**, Pignatiello, J. J., Jr. and Simpson, J. R. (2006), "Estimation of the Change Point of a Poisson Rate Parameter with a Linear Trend Disturbance," *Quality and Reliability Engineering International* **22**:(4), pp. 371-384.
18. **Perry, M. B.** and Pignatiello, J. J., Jr. (2005), "Estimation of the Change Point of the Process Fraction Nonconforming in SPC Application," *International Journal of Reliability, Quality and Safety Engineering* **12**:(2), pp. 95-110.
19. **Perry, M. B.**, Spoorre, J. K. and Velasco, T. (2001), "Control Chart Pattern Recognition using Back Propagation Artificial Neural Networks," *International Journal of Production Research* **39**:(15), pp. 3399-3418.

Book Chapters

1. Perry, M. B. (2010), "The Weighted Moving Average Technique", *Wiley Encyclopedia of Operations Research and Management Science*, John Wiley & Sons, DOI:10.1002/9780470400531.eorms0964
2. Perry, M. B. (2010), "The Exponentially-Weighted Moving Average", *Wiley Encyclopedia of Operations Research and Management Science*, John Wiley & Sons, DOI:10.1002/9780470400531.eorms0314.

Refereed Journal Articles (Under Review)

1. Michaelson, G. V. and **Perry, M. B.**, "Three New Quality Functions for Detecting Community Structure in Networks," submitted to *Statistical Analysis and Data Mining*.
2. Melouk, S. H., Jordan, J.D., and **Perry, M. B.**, "A Game Theory-Based Support Tool for Updating and Improving Military Decision-Making," submitted to *Journal of the Operational Research Society*.

Manuscripts Under Revision

1. **Perry, M. B.** and Michaelson, G. V., "Determining the Significance of Detected Clusters in Network Data," revise and re-submit to *Physical Review E*.

Other Scholarly Publications

1. Perry, M. B. (2010), "Human Predictive Reasoning for Group Interactions", *Air Force Research Laboratory Research Report*.
2. Perry, M. B., PhD Dissertation (2004), "Robust Change Point Detection and Estimation for Poisson Count Processes" *Florida State University*.
3. Perry, M. B., MS Thesis (2000), "Control Chart Pattern Recognition using Back Propagation Artificial Neural Networks" *Southern Illinois University*.

Refereed Conference Proceedings

1. Perry, M. B. (2007). "Identifying the Time of Step Change in the Mean of a MA(1) Process," *Proceedings of the 2007 Industrial Engineering Research Conference*.
2. Melouk, S., **Perry, M. B.**, and Murphy, T. (2006). Analysis of Patient Information: An Empirical Modeling Approach. *Proceedings of the Fifteenth Industrial Engineering Research Conference*, Orlando, FL, May 20-24.
3. **Perry, M. B.** and Pignatiello, J. J. Jr. (2004). "Estimating the Change Point of a Normal Process Mean with a linear Trend Disturbance in SPC," *Proceedings of the 34th annual Computers & Industrial Engineering Conference*.
4. **Perry, M. B.** and Pignatiello, J. J. Jr. (2004). "A Comparison of CUSUM and EWMA Control Charts for the Process Fraction Nonconforming," *Proceedings of the 2004 Industrial Engineering Research Conference*.
5. **Perry, M. B.** and Pignatiello, J. J. Jr. (2003). "A Comparison of CUSUM and EWMA Control Charts for Poisson Count Data," *Proceedings of the 2003 Industrial Engineering Research Conference*.
6. **Perry, M. B.** and Pignatiello, J. J. Jr. (2002). "A Review of Artificial Neural Network Applications in Control Chart Pattern Recognition," *Proceedings of the 2002 Industrial Engineering Research Conference*.
7. Spoerre, J. K. and **Perry, M. B.** (2000). "Control Chart Pattern Recognition using a Back Propagation Artificial Neural Network," *International Society for Optical Engineering: Intelligent Systems in Design and Manufacturing III*, Vol. 4192, pp. 259-269.
8. Abrate, S. and **Perry, M. B.** (1999). "Free Vibration of Composite Plates and Identification of Elastic Properties," *Proceedings of the International Modal Analysis Conference IMAC*, pp. 806-811.
9. Abrate, S. and **Perry, M. B.** (1998). "Identification Problems for Vibrating Composite Plates," *AMSE Publication: Computational Methods for solutions to Inverse Problems in Mechanics*, pp. 91-98.

Presentations

1. Mercado, G. V. and Perry, M. B. (2011), "Identifying the Time of a Step-Change in a Multivariate Process Mean," presented at the *INFORMS Annual Meeting*, Charlette, NC.
2. Perry, M. B. (2011), "Designed Experiments for Characterizing Nanostructured Surfaces Created by Machining Processes," presented at the *INFORMS Annual Meeting*, Charlette, NC. (QSR Invited Talk)
3. Perry, M. B. (2011), "A Likelihood Approach to Determining the Significance of Detected Clusters in Network Data," presented at the *INFORMS Annual Meeting*, Charlette, NC. (MORS Invited Talk)
4. Perry, M.B. and Yuan, F. (2011). "Construction of Balanced Equivalent-Estimation Second-Order Split-Split-Plot Designs", presented at the 55th *Annual Fall Technical Conference*, Kansas City, MO.
5. Yuan, F. and Perry, M.B., (2011). "Construction of Balanced Equivalent-Estimation Second-Order Split-Split-Plot Designs", presented at the *Joint Statistical Meetings*, Miami, FL.

6. Mercado, G.R., Conerly, M.D., and Perry, M.B., (2011). "Phase I Control Chart based on a Kernel Estimator of the Quantile Function", presented at the *Joint Statistical Meetings*, Miami, FL.
7. Perry, M. B., Cai, J., Kharoufeh, J., and Shankar, M. R., (2010) "Statistical Characterization of Nanostructured Surfaces Created by Machining Processes", *INFORMS Annual Meeting*, Austin, TX.
8. Mercado, G. R. and Perry, M. B., (2010) "Phase II Monitoring of Covariance Stationary ARMA Processes." *Joint Statistical Meetings*, Vancouver, BC.
9. Perry, M. B., (2010) "A Change Point Model for Two-Stage Sampling Schemes." *INFORMS Regional*, Huntsville, AL.
10. Mercado, G. R. and Perry, M. B., (2010) "Phase II Monitoring of Covariance Stationary ARMA Processes." *INFORMS Regional*, Huntsville, AL.
11. Yuan, F. and Perry, M. B., (2010) "Estimating the Time of Step Change in the Location Parameter of Autocorrelated Processes." *INFORMS Regional*, Huntsville, AL.
12. Michaelson, G. and Perry, M.B., (2009) "A More General, Likelihood-Based Alternative to Modularity in Detecting Community Structure in Networks," *INFORMS*, San Diego, CA, Oct 14.
13. Michaelson, G. and Perry, M. B., (2009), "A New Heuristic Search Model for the Identification of Collusion Sets in Agent Based Models," *Joint Statistical Meetings*, Washington, D.C., Aug 2-6.
14. Perry, M. B., (2009). "Collusion Set Detection in Networks," *ISO Innovative Analytics*, San Francisco, CA, Feb 26.
15. Perry, M. B., (2008). "Detecting Edge Structure in Noisy Networks," *INFORMS Annual Meeting*, Washington, DC, Oct 12-15.
16. Perry, M. B., (2008). "A Control Chart for Monitoring and Estimating Changes in the Mean of ARMA(p, q) Processes," *INFORMS Annual Meeting*, Washington, DC, Oct 12-15.
17. Perry, M. B., (2008). "Identifying the Time of Linear Change in the Mean of Autocorrelated Processes," *INFORMS Annual Meeting*, Washington, DC, Oct 12-15.
18. Perry, M. B., (2008). "Identifying the Time of Polynomial Trend in the Mean of Autocorrelated Processes," *INFORMS Southwest Regional Conference*, Texas A&M University, College Station, TX, April 18-19.
19. Perry, M. B., (2008). "A Change Point Model for the Location Parameter of Exponential Family Densities," *Research Seminar*, Department of Information Systems, Statistics, and Management Science, The University of Alabama, Tuscaloosa, AL
20. Perry, M. B., (2007). "Identifying the Time of Step Change in the Mean of Stationary Autocorrelated Processes," *Research Seminar*, Telecommunications & Information Technology Institute (IT2), Florida International University, Miami, FL.
21. Melouk, S. H., Perry, M. B., and Jordan, J. (2007). "Resource Allocation Strategies Using Game Theoretic Concepts and Information Updates," presented at the *Annual Meeting of the Decision Sciences Institute*, Phoenix, AZ, Nov 17-20.
22. Perry, M. B., (2007). "Identifying the Time of Step Change in the Mean of ARMA(1,1) Processes," presented at the *INFORMS Annual Meeting*, Seattle, WA, Nov 04-07.

23. Perry, M. B., (2007). "Detecting Edge Structure in Noisy Networks," presented at the *INFORMS Annual Meeting*, Seattle, WA, Nov 04-07.
24. Jordan, J., Melouk, S. H., and Perry, M. B., (2007). "Updating Play Calling using Game Theory and Exploring Risk Behavior through Response Surface Methodology," presented at the *INFORMS Annual meeting*, Seattle, WA, Nov 04-07.
25. Leinart, J, Deckro, R. F., Denhard, D., Mills, R., Moore, J. T., and Perry, M. B., (2007). "Characterizing and Detecting Unrevealed Elements of Network Systems," presented at the *INFORMS Annual Meeting*, Seattle, WA, Nov 04-07.
26. Perry, M. B., (2007). "Estimating the Time of Change in a Business Process," *Research Seminar*, Department of Information Systems, Statistics, and Management Science, The University of Alabama, Tuscaloosa, AL.
27. Perry, M. B. and Pignatiello, J. J. Jr., (2007). "Identifying the Time of Step Change in the Mean of Autocorrelated Processes," presented at the *51st Annual Fall Technical Conference*, Jacksonville, FL, Oct 11-12.
28. Artelli, M. J., Deckro, R. F., Perry, M. B., and Zalewski, D. J. (2007) "Public Resolve: The Casualty of the Long War," presented at the *75th MORS Symposium*, United States Naval Academy, Annapolis, MD.
29. Perry, M. B. (2007). "Identifying the Time of Step Change in the Mean of a MA(1) Process," (*Invited Talk*), presented at the *2007 Industrial Engineering Research Conference*, Nashville, TN, May 19-23.
30. Deckro, R. F., Perry, M. B., Herbranson, T. and Geffre, J. (2007). "Social Network Analysis Research at AFIT," presented at the *Adversarial Behavioral Modeling Conference*, U.S. Air Force, Maxwell AFB, AL, March 08-09.
31. Perry, M. B. (2007). "A Change Point Model for the Location Parameter of Exponential Family Densities," *Research Seminar*, Department of Industrial & Systems Engineering, Florida International University, Miami, FL.
32. Perry, M. B. (2006). "A Change Point Model for the Exponential Family," presented at the *INFORMS Annual Meeting*, Pittsburgh, PA, November 5-8.
33. Melouk, S., Perry, M. B., and Murphy, T. (2006). Analysis of Patient Information: An Empirical Modeling Approach. *Industrial Engineering Research Conference*, Orlando, FL. May 20-24.
34. Melouk, S. H. and Perry, M. B. (2006). "BDA Enhancement Methodology Using Situational Parameter Adjustments," presented at the *INFORMS Annual Meeting*, Pittsburgh, PA, November 5-8.
35. Perry, M. B. and Melouk S. H. (2005). "Change Point Estimation for Monotonically Decreasing Exponential Rates in SPC," presented at the *INFORMS Annual Meeting*, San Francisco, CA, November 13-16.
36. Perry, M. B., Simpson, J. R., Melouk, S. H., Carras, M. V. and Rios, A. (2005). "Battle Damage Assessment Enhancement Methodology Using Situational Parameter Adjustments," presented at *TRAC*, White Sands Missile Range, NM.
37. Perry, M. B. (2005). "Change Point Estimation for Poisson Count Processes," *Research Seminar*, Department of Industrial Engineering and Management, Oklahoma State University, Stillwater, OK.

38. Capt C. Clark, R. F. Deckro, Lt Col J. Weir and M. B. Perry (2005) "Modeling and Analysis of Clandestine Networks," presented at the 73rd *MORS Symposium*, United States Military Academy, NY.
39. Perry, M. B. and Pignatiello, J. J. Jr. (2004). "Estimating the Change Point of a Normal Process Mean with a linear Trend Disturbance in SPC," presented at the *Annual Computers & Industrial Engineering Conference*, San Francisco, CA.
40. Perry, M. B. (2004). "Estimation of the Change Point of a Poisson Rate Parameter with a Monotonic Change Disturbance," *Invited Talk, Cincinnati/Dayton Chapter of INFORMS*, West Chester, OH.
41. Perry, M. B. and Pignatiello, J. J. Jr. (2002). "A Review of Artificial Neural Network Applications in Control Chart Pattern Recognition," presented at the *2002 Industrial Engineering Research Conference*, Orlando, FL.
42. Spoorre, J. K. and Perry, M. B. (2000). "Control Chart Pattern Recognition using a Back Propagation Artificial Neural Network," presented at the *SPIE*, Boston, MA.

Research Grants

Funded Research

1. *BDA Enhancement Methodology using Situational Parameter Adjustments*
 Amount: \$140,000
 Sponsor: Army Training and Doctrine Command (TRADOC)
 Date: March 2005-March 2006
 Involvement: Principal Investigator (50%) with J. R. Simpson (co-PI)
2. *Simulation Modeling and Statistical Network Tools for Improving Collaboration in Military Logistics*
 Amount: \$170,406
 Sponsor: Air Force Research Laboratory (AFRL/HEAL)
 Date: July 2007-Oct 2008
 Involvement: Co-Principal Investigator (50%) with R. Giachetti (PI)
3. *Human Predictive Reasoning for Group Interactions*
 Amount: \$299,872
 Sponsor: Air Force Research Laboratory (AFRL/RHAL)
 Date: Jan 2008-Aug 2010
 Involvement: Principal Investigator (100%)
4. *Practical Analysis of Split- and Split-Split-Plot Response Surface Designs*
 Amount: \$17,500
 Sponsor: Culverhouse College of Commerce and Business Administration (SEiRP)
 Date: June 2011-May 2012
 Involvement: Principal Investigator (100%)

Other Proposals

1. *Statistical Design of Machining-Based Processes for Manufacturing Nanograined Surfaces*
 Sponsor: National Science Foundation, CMMI-MES
 Dates: September 2011 August 2014
 Amount Requested: \$99,640
 Status of Proposal: Not Funded.
 Involvement: Principal Investigator

TEACHING

The University of Alabama

ST 260: Statistical Methods (SP12)
ST 531: Intro to Data Mining (Grad) (FA08)
ST 532: Advanced Data Mining (Grad) (SP09, SP11)
ST 450/550: Statistical Methods for Applied Research I (FA10, FA11)
ST 454/554: Mathematical Statistics I (FA09)
ST 455/555: Mathematical Statistics II (SP10)
ST 561: Applied Design of Experiments (Grad) (FA08, FA09)
ST 575: Statistical Quality Control (Grad) (SP10 - Online, SP11, SP12)
ST 615: Theory of Regression (Grad) (SP09, SP10)

Florida International University

EIN 5332: Quality Engineering (Grad) (FA 07)
EIN 3133: Quality Control (SP 08)

Air Force Institute of Technology

OPER 501: Quantitative Decision Making (WI 05)
OPER 679: Empirical Modeling (SP 05,06,07)
OPER 681: Statistical Process Control (WI 05,06)
OPER 683: Response Surface Methodology (SU 04,05,06; FA 06)
OPER 684: Quantitative Forecasting Methods (WI 05,06)
OPER 688: Operational Experimentation (SU 06,07)

Florida State University

EGN 3443: Statistical Topics in IE (SP 04)
EIN 3391: Engineering Management (Assisted)
ESI 4234: Quality Control and Reliability (Assisted)
EIN 4333: Design of Integrated Production Systems and Facilities (Assisted)
EIN 4891: Senior Design Project (Assisted)
EIN 5322: Engineering Management (Graduate Course) (Assisted)

Southern Illinois University

IT 392: Facilities Planning (SU 02)
IT 105: Engineering Graphics (SP 99)

Southeast Missouri State University

IM 102: Technical Communication (SP 00)
TG 120: Computer-Aided Engineering Graphics (SP 00,01 FA 00)
IM 313: Facilities Planning (SP 01)

Graduate Student Advising

Ph.D. Students

1. Gregory Michaelson (Ph.D., Applied Statistics), University of Alabama, *On the Identification of Statistically Significant Network Topology*. January 2010.
2. Fang Yuan (Ph.D., Applied Statistics), University of Alabama. *Construction of Estimation-Equivalent Second-Order Split-Split-Plot Response Surface Designs*. January 2012.
3. Gary Mercado (Ph.D., Applied Statistics), University of Alabama. *On the Detection and Estimation of Changes in a Process Mean based on Kernel Estimators*. In Progress.

M.S. Students

1. Harrell, Lt Ryan (M.S., Operations Research), Air Force Institute of Technology, *A Multivariate Magnitude-Robust Control Chart for Mean Shift Detection and Change Point Estimation*. March 2007.
2. Seder, Lt Joshua (M.S., Operations Research), Air Force Institute of Technology, *Examining Clandestine Networks for the Presence of Non-Random Structure*. March 2007.
3. Wilkin, Capt. Brian (M.S., Operations Research), Air Force Institute of Technology, *Change Point Methods for Overdispersed Count Data*. March 2007.
4. Jordan, Capt. Jeremy (M.S., Operations Research), Air Force Institute of Technology, *Updating Optimal Decisions using Game Theory and Exploring Risk Behavior Through Response Surface methodology*. March 2007.
5. Carras, Capt Michael (M.S., Operations Research), Air Force Institute of Technology, *BDA Enhancement Methodology using Situational Parameter Adjustments*. March 2006.

Committee Involvement

1. Boone, Jeffery (Ph.D., Applied Statistics at University of Alabama), *Contributions to Multivariate Control Charting: Studies of the Z chart and four Nonparametric Charts*. May 2010. Advisor: Dr. Subha Chakraborty.
2. Artelli, Capt. Michael (Ph.D., Operations Research at Air Force Institute of Technology), *21st Century Warfare Modeling*. December 2007. Advisor: Dr. Richard Deckro.
3. Rios, Armando (Ph.D., Industrial Engineering at Florida State University), *Sequential Experimentation Schemes for Resolution III, Robust, and Mixed Level Designs*. June 2007. Advisor: Dr. James Simpson.
4. Keseraju, Vishnu (Ph.D., Industrial Engineering at Wright State University), *An Integrated Approach to Simulation Combining Process and Event Driven Models*. June 2008. Advisor: Dr. Frank Ciarallo.
5. Leinart, Maj James A. (Ph.D., Operations Research at Air Force Institute of Technology), *Detecting Hidden Structure in Social Networks*. August 2008. Advisor: Dr. Richard Deckro.
6. Bellucci, Capt. Joseph (M.S., Operations Research at Air Force Institute of Technology), *Improving Hyperspectral Image Testing Using Synthetic Imagery and Factorial Designed Experiments*. March 2007. Advisor: Dr. Kenneth Bauer.
7. Caulk, Capt. Ryan (M.S., Operations Research at Air Force Institute of Technology), *Outlier Detection in Hyperspectral Imagery using Closest Distance to Center with Ellipsoidal Multivariate Trimming*. March 2007. Advisor: Dr. Kenneth Bauer.

8. Cho, Capt. Nam Suk (M.S., Operations Research at Air Force Institute of Technology), *Prioritization of Critical Infrastructure Rebuilding using Simulation Optimization*. March 2007. Advisor: Dr. Sharif Melouk.
9. Cavallero, Capt. Kristin (M.S., Operations Research at Air Force Institute of Technology), *Resource Allocation for At-Sea Vessel Interdiction*. March 2007. Advisor: Dr. Sharif Melouk.
10. Magallanez, Capt. Raymond (M.S., Operations Research at Air Force Institute of Technology), *Surrogate Strategies for Computationally Expensive Optimization Problems with CPU-Time Correlated Functions*. March 2007. Advisor: Lt. Col. Mark Abramson.
11. Rios, Armando (M.S., Industrial Engineering at Florida State University), *BDA Enhancement Methodology using Situational Parameter Adjustments*. Fall 2006. Advisor: Dr. James Simpson.
12. Murphy, Capt Tony (M.S., Operations Research at Air Force Institute of Technology), *Analysis of Patient Data: An Empirical Modeling Approach*. March 2006. Advisor: Dr. Sharif Melouk.
13. Downs, Lt Doneda (M.S., Operations Research at Air Force Institute of Technology), *Evaluating the Commitment of Clandestine Group Members*. March 2006. Advisor: Dr. Richard Deckro.
14. Clark, Capt Clinton (M.S., Operations Research at Air Force Institute of Technology), *Modeling and Analysis of Clandestine Networks*. March 2005. Advisor: Dr. Richard Deckro.

SERVICE

Service to Professional Societies

1. Division Council Member, Chair (2011-present), Chemical and Process Industries Division of the *American Society for Quality*.
2. Division Council Member, Chair Elect (2010-2011), Chemical and Process Industries Division of the *American Society for Quality*.
3. Division Council Member, Secretary (2009-2010), Chemical and Process Industries Division of the *American Society for Quality*.
4. Division Council Member, Treasurer (2008-2009), Chemical and Process Industries Division of the *American Society for Quality*.

Conferences and Conference Sessions (Organized/Moderated)

1. Steering Committee Member, *Fall Technical Conference*, representing the Section on Quality and Productivity, *American Statistical Association*, 2011-present.
2. Publicity Chair, *Fall Technical Conference*, 2011-2012.
3. Program Committee Member, Business Intelligence Track of the *5th International Conference on Information Systems, Technology, and Management*, 10-12 March, 2011, Gurgaon, India.
4. General Chair, *Fall Technical Conference*, 7-8 Oct 2010, Birmingham, AL.
5. Session Chair, *INFORMS Southern Regional/MAS Conference*, Huntsville, AL, April 2010.
6. INFORMS Session Chair (QSR sponsored). Session title: "SPC Methods for Autocorrelated Processes," *INFORMS Annual Meeting*, 12-15 Oct 2008.

7. INFORMS Session Chair (QSR sponsored). Session title: "Statistical Methods for Quality Improvement," *INFORMS Southwest Regional Conference*, 18-19 April 2008, College Station, TX.
8. INFORMS Session Chair (QSR sponsored). Session title: "SPC Methods for Autocorrelated Processes," *INFORMS Annual Meeting*, 04-07 Nov 2007, Seattle, WA.
9. INFORMS Session Chair (MAS sponsored). Session title: "Social Network Analysis Methods for Military Operations," *INFORMS Annual Meeting*, 04-07 Nov 2007, Seattle, WA.
10. Moderator," *Fall Technical Conference*, 11-12 Oct 2007, Jacksonville, FL.
11. Cluster Co-chair for Military Applications Track, *INFORMS International*, 08-11 July 2007, Puerto Rico.
12. Session Chair for Network Models, Annual meeting of the *INFORMS Military Applications Society*, 24-26 July 2006, Mystic, CT.

Editorial Service

1. Appointed to the *Fall Technical Conference* Steering Committee, 2011, *American Statistical Association*.
2. Editorial Board Member, *Quality and Reliability Engineering International*, 2009-present
3. Editorial Board Member, *Quality Engineering*, 2006-present
4. Ad-Hoc reviewer for several professional journals, including: *Technometrics*, *Journal of Quality Technology*, *IIE Transactions*, *Journal of Applied Statistics*, *IEEE Transactions on Reliability*, *International Journal for Quality in Health Care*, *European Journal of Operational Research*, *Military Operations Research*, *Computers & Industrial Engineering*, *International Journal of Production Research*, *Communications in Statistics*, *Social Networks*, *Naval Research Logistics*, *Expert Systems with Applications*.

Panel Invitations

1. Shewell Award Judge, *American Society for Quality*, 2011.
2. Invited Editor representing *Quality Engineering*: Tutorial session on publishing engineering management research, 2007 *Industrial Engineering Research Conference*

School and Departmental Service

1. Textbook Committee for Statistics, 2009-present, *College of Commerce and Business Administration*, The University of Alabama
2. Banner Marshall, 2007 *FIU Faculty Awards Ceremony*, Florida International University
3. Graduate Student Advisor (Operations Research Division, Air Force Institute of Technology), 2006-2007
4. Thesis Awards Committee (Graduate School of Engineering and Management, Air Force Institute of Technology), 2006

Honors, Awards, & Recognition

1. Named to the Editorial Board of *Quality and Reliability Engineering International*, 2009.
2. Appointed to the Chemical and Process Industries Division Council, 2008-present, *American Society for Quality*.
3. *Barchi Prize Nominee*, 2007. "Public Resolve: The Casualty of the Long War" (with M. Artelli, R. Deckro, and D. Zalewski). Presented at the 75th *Military Operations Research Society Symposium*.
4. *Instructor of the Quarter* (Fall 2006). Department of Operational Sciences, Graduate School of Engineering and Management, Air Force Institute of Technology.
5. Named to Editorial Board of *Quality Engineering*, 2006.
6. *INFORMS Young Researcher Roundtable*, 2006. INFORMS Conference on OR/MS Practice. April 30-May 02, Miami, FL.
7. *Barchi Prize Nominee*, 2005. Modeling and Analysis of Clandestine Networks (with C. Clark, R. Deckro, and J. Weir). Presented at the 73rd *Military Operations Research Society Symposium*.
8. *Instructor of the Quarter* (Summer 2004). Department of Operational Sciences, Graduate School of Engineering and Management, Air Force Institute of Technology.
9. Inducted to Tau Beta Pi, National Engineering Honor Society.
10. Inducted to Alpha Pi Mu, National Industrial Engineering Honor Society.

Professional Affiliations

1. Member, American Society for Quality (ASQ)
2. Member, American Statistical Association (ASA)
3. Member, Institute of Industrial Engineers (IIE)
4. Member, Institute for Operations Research and the Management Sciences (INFORMS)