

MANSOOREH MOLLAGHASEMI

Associate Professor

Department of Industrial Engineering and Management Systems

University of Central Florida

Orlando, Florida 32816

EDUCATION

- Ph.D. Industrial Engineering, University of Louisville, December 1991.
Dissertation: Methodologies for Optimization of Multiple Response Simulation Models.
- M.Eng. Chemical Engineering, University of Louisville, December 1983.
Thesis: Effects of Acetic Acid on the Polymerization of Styrene.
- B.S. Chemical Engineering, University of Louisville, May 1982.

EMPLOYMENT HISTORY

Academic Positions Held

- 1996-Present **University of Central Florida**, Orlando, FL.
Position: Associate Professor
Duties: Teaching, research, and service as detailed below.
- 1996-1997 **University of Central Florida**, Orlando, FL.
Position: Provost Faculty Associate
Duties: Special projects in strategic planning, performance based budgeting, and institutional effectiveness.
- 1991 - 1996 **University of Central Florida**, Orlando, FL.
Position: Assistant Professor
Duties: Teaching, research, and service as detailed below.
- 1988 - 1991 **University of Louisville**, Louisville, KY.
Position: Graduate Fellow
Duties: Research in the area of multiple response simulation optimization.
- 1988 - 1989 **University of Louisville**, Louisville, KY.
Position: Graduate Teaching Assistant
Duties: Teaching graduate operations research courses in the Engineering Management Program.
- 1987 - 1988 **Northeastern University**, Boston, MA.
Position: Lecturer (part-time)
Duties: Teaching mathematics and computer programming.
- 1987 - 1988 **University of Massachusetts**, Boston, MA.
Position: Lecturer (part-time)
Duties: Teaching business mathematics.
- 1979-1982 **Bechtel Inc.**, Louisville, Ky.

Position: Co-op Student (3 internships during that period)
Duties: Process engineering

HONORS AND AWARDS

- Distinguished Researcher Award, UCF College of Engineering (2003)
- Recipient of the Teaching Incentive Program (TIP) Award from the State of Florida (2002)
- Researcher of the Year, Department of Industrial Engineering (2000)
- Researcher of the Year, Department of Industrial Engineering (1995)
- Recipient of the Teaching Incentive Program (TIP) Award from the State of Florida (1994)
- Recipient of the Department of Industrial Engineering Teacher of the Year Award (1993)
- Recipient of the Graduate Fellowship from the University of Louisville Graduate School (1989-1991)
- Member of Alpha Pi MU, the National Industrial Engineering Honor Society

I. RESEARCH, PUBLICATIONS, AND OTHER SCHOLARLY ACTIVITIES

Areas of Research Interest

Simulation Modeling and Analysis
Multiple Criteria Optimization
Supply Chain Solutions

External Funding Activities

- “Modeling Service Supply Chains”, Vision to Reality, **Principal Investigator**, \$30,000, August 2007 – December 2007.
- “Simulation Modeling and Analysis of Ground Transportation Used for Crowd Evacuation in Major Events,” Gameday Management, **Principal Investigator**, October 05- August 06, \$70,566.
- “UCF-STEP Pathways to STEM: From Promise to Prominence, National Science Foundation, **Co-Principal Investigator**, National Science Foundation, January 2006-December 2010, \$1.797 M.
- “Multi-Criteria Analysis Environment for Product/System User Centered Design Characteristics,” **Co-Principal Investigator**, National Science Foundation, December 04- December 05, \$50,000.
- “Emergency Evacuation and Vulnerability Assessment Plan for Orlando International Airport, Federal Department of Transportation, **Co-Principal Investigator**, October 04-October 05, \$248,527.
- “An Integrated Emergency Management Decision Support System for Evacuation,” Florida Department of Transportation and Orlando International Airport, **Principal Investigator**, May 04-May 05, \$125,000.
- “A Framework for Modeling Emergency Evacuations,” Department of Transportation, **Co-Principal Investigator**, April 03-April 04, \$100,023.
- “Post-Disaster Dynamic Routing of Emergency Vehicle,” Florida Department of Transportation/CATSS,” **Principal Investigator**, May 02-April 03, \$76,749.
- “NSF-CRCD: Machine Learning Advances for Engineering Education,” National Science Foundation,” **Co-Principal Investigator**, June 02 - May 05, \$572,028 (\$406,951 NSF, \$165,077 UCF matching).
- “Immersion Center: Achieving Excellence in Multimodal Interactive Systems Design.” Office of Naval Research, **Co-Principal Investigator**, August 2002-December 2003, \$299,997.
- “Simulation Modeling and Analysis of Space Shuttle Flight Hardware Processing,” NASA/KSC, **Principal Investigator**, January 00-May 01, \$215,034 (with \$45,000 matching funds from UCF).
- “Development of Risk Management Techniques for Ground Operations at KSC,” NASA/Langley, **Principal Investigator**, April 00-December 00, \$161,418 (with \$15,000 funding match from UCF).

- “A Methodology for Discovering Cause and Effect Relationships in Equipment Breakdown Data ,” Lucent Technology, **Principal Investigator**, March 00-May01, \$87,334.
- “Simulation Modeling Initiatives,” UCF, **Principal Investigator**, July 1999-June 2000, \$116,500.
- Simulation Modeling Initiatives, **Principal Investigator**, July 1998-June 1999, \$250,000.
- “Lucent Technologies Industrial Fellowship.” Lucent technologies, **Principal Investigator**, August 1999- August 2000, \$99,705.
- "Production Scheduling in Semiconductor Manufacturing (Phase II), **Co-Principal Investigator** , Lucent Technologies, August 1997-August 1998, \$42,000.
- "Production Scheduling in Semiconductor Manufacturing (Phase I), **Co-Principal Investigator** , Lucent Technologies, August 1997-August 1998, \$36,000.
- “Lucent Technologies Industrial Fellowship.” Lucent technologies, **Principal Investigator**, August 1996- May 1998, \$190,710.
- “Development of a Neural Network Model to Predict Physicians Behavior.” Rhone-Poulenc Rorer Pharmaceuticals, **Principal Investigator**, May 1995-December 1995, \$78,254.
- “Development of TREDs (TRaining Exercise Development System), **Phase II.**” U.S. Army Simulation, Training and Instrumentation Command, **Co-Principal Investigator**, May 1995- April 1996, \$90,000.
- “AT&T Industrial Fellowship.” AT&T Microelectronics, **Principal Investigator**, 1994-1996, \$189,524.
- “Simulation of the Rapid Thermal Annealing Facilities.” AT&T Microelectronics, **Principal Investigator**, May 1994-May 1995, \$24,435.
- “Development of TREDs (TRaining Exercise Development System), **Phase I.**” U.S. Army Simulation, Training and Instrumentation Command, **Co-Principal Investigator**, May 1994-January 1995, \$101,834.
- “Shuttle Logistics Process Re-engineering.” Rockwell International, **Principal Investigator**, October 1993-May 1994, \$47,162.
- “Advanced Space Logistics Studies: Development of a buy-lease cost model to analyze the feasibility of leasing Rockwell-owned spares to NASA.” Rockwell International, **Principal Investigator**, April 1993-August 1993, \$35,000.
- “Simulation Modeling of the Wafer Fabrication Operation.” AT&T Microelectronics, **Principal Investigator**, May 1992-August 1992, \$22,400.
- “Optimization of Descriptive Models in Manufacturing.” University of Central Florida (EIES), **Principal Investigator**, Spring 1992, \$3,610.

Refereed Journal Publications

- Yousefi, Niloofar, Yunwen Lei, Marius Kloft, Mansooreh Mollaghasemi, and Georgios Anagnostopoulos. "Local rademacher complexity-based learning guarantees for multi-task learning." arXiv preprint arXiv:1602.05916 (2016).

- Yousefi, Niloofar, Cong Li, Mansooreh Mollaghasemi, Georgios Anagnostopoulos, and Michael Georgiopoulos. "Multi-Task Learning Using Neighborhood Kernels." arXiv preprint arXiv:1707.03426 (2017).
- Nazzal, D., Mollaghasemi, M., Hedlund, H., and Bozorgi, A., "Using genetic algorithms and an indifference-zone ranking and selection procedure under common random numbers for simulation optimization," *Journal of Simulation*, Vol. 6, PP. 56-66, 2012, doi: 10.1057/jos.2011.14.
- Kaylani, A., Georgiopoulos, M., Mollaghasemi, M., Anagnostopoulos, G. C., Sentelle, C., "An Adaptive Multiobjective Approach to Evolving ART Architectures," *IEEE Transactions on Neural Networks*, Vol. 21, No. 4, 2010, pp. 529-550.
- Kaylani, A., Georgiopoulos, M., Mollaghasemi, M., Anagnostopoulos, G. C., "AG-ART: An Adaptive Method of Evolving ART Architectures," *Neurocomputing*, Vol. 72, No. 10-12, 2009, pp. 2079-2092.
- Georgiopoulos, M., DeMara, R. F., Gonzalez, A. J., Wu, A. S., Mollaghasemi, M., Gelenbe, E., Kysilka, M., Secretan, J., Sharma, C. A., Alnsour, A. J., "A Sustainable Model for Integrating Current Topics in Machine Learning Research in the Undergraduate Curriculum," *IEEE Transactions on Education*, Vol. 52, No. 4, Nov. 2009, pp. 503-512.
- Fayez, A. Kaylani, D. Cope and Mansooreh Mollaghasemi, "Managing Airport Operations using Simulation," *Journal of Simulation*, (2008) 2, p. 41-52.
- A. Kaylani, M. Mollaghasemi, D. Cope, S. Fayez, G. Rabadi and M. Steele, "A generic environment for modeling future launch operations—GEM-FLO: a success story in generic modeling," *Journal of the Operational Research Society* (2008) 59, 1312–1320.
- A. Kaylani, M. Georgiopoulos, M. Mollaghasemi, G. C. Anagnostopoulos, "AG-ART: An adaptive approach to evolving ART architectures," *Neurocomputing*, Accepted Sep 2008. Online publication: 23-JAN-2009.
- Cates, G., and M. Mollaghasemi, "The Project Assessment Simulation Technique," *Engineering Management Journal*, Vol. 19, No. 4, 2007, PP. 3-10.
- Ahmad Al-Daraiseh, Assem Kaylani, Michael Georgiopoulos, Mansooreh Mollaghasemi, Annie S. Wu, and Georgios C. Anagnostopoulos, "GFAM: Evolving Fuzzy ARTMAP Neural Networks," *Neural Networks*, vol. 20, no. 8, ISSN 0893-6080, pages: 874-892 , October 2007.
- M. Zhong, D. Coggeshall, E. Ghaneie , T. Pope, M. Rivera, M. Georgiopoulos, G. C. Anagnostopoulos, M. Mollaghasemi, and S. Richie, "Gap-Based Estimation: Choosing the Smoothing Parameters for Probabilistic and General Regression Neural Networks." *Neural Computation*, to appear (in 2007).
- Zhong, M., Rosander, B., Georgiopoulos, M., Anagnostopoulos, G., Mollaghasemi, M., and Richie, S., "Experiments with Micro-ARTMAP: Effect of the Network Parameters on the Network Performance," *Neural Networks journal*, In Press.
- Zhong, M., Hecker, J., Maidhoff, I., Shibly, P., Georgiopoulos, M., Anagnostopoulos, G., and Mollaghasemi, M., "Probabilistic Neural Network: Comparisons of the Cross-Validation Approach and a Fast Heuristic to choose the Smoothing Parameters," *Neural Networks journal*, In Press.

- Rabadi, G., Anagnostopoulos, G., and M. Mollaghasemi, "A Heuristic Algorithm For The Just-In-Time Single Machine Scheduling Problem With Setups: A Comparison With A Simulated Annealing Approach," *International Journal of Advanced Manufacturing Technology*, In press.
- Duwayri, Z., Mollaghasemi, M., Nazzal, D., and Rabadi, G., "Scheduling Setup Changes at Bottleneck Facilities in Semiconductor Manufacturing", in a special issue on Semiconductor manufacturing, *Production Planning and Control Journal*. 2006, Vol. 17, No. 7, P. 717-727.
- Nazzal, D., Mollaghasemi, M. and Anderson, D. "A Simulation-based Evaluation of the Cost of Cycle Time Reduction in Agere Systems Wafer Fabrication Facility - A case study". *International Journal of Production Economics*, 2006, Vol. 100, issue 2, pages 300-313.
- Nasereddin, M. and Mollaghasemi, M., "Exploring the Choice of Experimental Design Used to Create the Training Set for a Reverse Neural Network Simulation Metamodel in System Design," *Journal of Information Technology*, 2005, Vol. 4, No.11, pp. 1102 – 1109.
- Rabadi, G., and M. Mollaghasemi, and G. Anagnostopoulos, "A New Branch-and-Bound for the Early/Tardy Problem with a Common Due-Date and Sequence-Dependent Setup Time," *Computers and Operations Research*, Vol. 31, No. 10, p. 1727-1751, 2004.
- Stanney, K.M., Mollaghasemi, M., Reeves, L., Breaux, R., & Graeber, D.A. (in press). Usability engineering of virtual environments (VEs): Identifying multiple criteria that drive effective VE system design. *International Journal of Human-Computer Studies*, 2003.
- Mollaghasemi, M., K. LeCroy, and M. Georgiopoulos, "Application of Neural Networks and Simulation Modeling in Manufacturing System Design," *Interfaces*, Volume 28, Number 5, September-October 1998.
- Briggs, D., M. Mollaghasemi, and J. Sepulveda, "An Automated Approach for Planning Mass Tactical Airborne Operations," *IIE Transactions*, Volume 30, Issue 9, September 1998.
- Centeno, G., and M. Mollaghasemi, "A Methodology for the Multiple Criteria Selection of Critical Processes and Alternatives in a Benchmarking Project," *International Journal of Industrial Engineering: Applications and Practices*, Vol. 2, No. 3, 1995.
- Mollaghasemi, M., J. Pet-Edwards, and U. Gupta, "A Multiple Criteria Buy versus Lease Analysis for Government Contracts," *IEEE Transaction on Engineering Management*, Vol. 42, No. 3, 1995.
- Mollaghasemi, M. "Multiple Response Optimization of Simulation Models," *Transactions of the Society for Computer Simulation*, Vol. 11, No. 3, 1994.
- Johnson, M., and M. Mollaghasemi, "Simulation Input Data Modeling," *Annals of Operations Research*, Vol. 53, 1994.
- Mollaghasemi, M., and G. Evans, "Multicriteria Design of Manufacturing Systems through Simulation Optimization," *IEEE Transactions on System, Man, and Cybernetics*, Vol. 24, No. 9, 1994.

- Elshennawy, A., G. Krishnaswamy, and M. Mollaghasemi, "A Customer Oriented Approach to Concurrent Engineering Deployment," *Integrated Manufacturing Systems*, Vol. 4, No. 4, 1993.
- Mollaghasemi, M., and G. Evans, "A Methodology for Stochastic Optimization of Multiple Response Simulation Models," *Engineering Optimization*, Vol. 24, No. 4, 1993.

Books and Book Chapters

- Pet-Armacost, J., Mollaghasemi, M., and R. Armacost, "Interactive Multiobjective Programming and the STEP Method", *Encyclopedia of Operations Research and Management Science*, Edited by Saul Grass and Michael Fu, Springer, 2012.
- G. W. Evans, and M. Mollaghasemi, "Space", *Encyclopedia of Operations Research and Management Science*, Edited by Saul Grass and Michael Fu, Springer, 2012.
- A. Al-Daraiseh, A. Kaylani, M. Georgiopoulos, M. Mollaghasemi, A. S. Wu, G. Anagnostopoulos, "*Genetically Engineered ART Architectures*", in *Computational Intelligence Based on Lattice Theory*, Studies in Computational Intelligence, 67, Editors: V. G. Kaburlasos and G. X. Ritter, Springer Verlag, August 2007, pp. 233-262.
- M. Zhong, J. Hecker, I. Maidhoff, P. Shibly, M. Georgiopoulos, G. Anagnostopoulos, M. Mollaghasemi, "Probabilistic Neural Network: Comparisons of the Cross-Validation Approach and a Fast Heuristic to choose the Smoothing Parameters," *Intelligent Engineering Systems Through Artificial Neural Networks*, Volume 15, Smart Engineering System Design: Neural Networks, Evolutionary Programming, and Artificial Life, editors: C. H. Dagli, A. L. Buczak, D. L. Enke, M. L. Embrechts, and O. Ersoy, ASME.
- M. Zhong, B. Rosander, M. Georgiopoulos, G. Anagnostopoulos, M. Mollaghasemi, and S. Richie, "Experiments with Micro-ARTMAP: Effect of the Network Parameters on the Network Performance," *Intelligent Engineering Systems Through Artificial Neural Networks*, Volume 15, Smart Engineering System Design: Neural Networks, Evolutionary Programming, and Artificial Life, editors: C. H. Dagli, A. L. Buczak, D. L. Enke, M. L. Embrechts, and O. Ersoy, ASME.
- Mollaghasemi, M., and J. Pet-Edwards, *Methods and Applications of Multiple Objective Decision Making*, *Encyclopedia of Industrial Engineering*, 1999.
- Pet-Edwards, J., and Mollaghasemi, M. *Interactive Multiobjective Programming and the STEP Method*, *OR Encyclopedia*, 1999.
- Mollaghasemi, M., and J. Pet-Edwards, *Making Multi-Objective Decisions*, IEEE Computer Society Press, September 1995.

Edited Books

- Evans, G., and M. Mollaghasemi, Proceedings of 1993 Winter Simulation Conference, 1993.

Refereed Conference Proceedings Publications

- Fayez, M., F. Zavagnini, and M. Mollaghasemi, "Doing Simulation for a Living," Proceedings of the 2011 Winter Simulation Conference, PP. 1481-1491.
- L. Trocine, N. Cummings, A. Bazzana, N. Rychlik, K. LeCroy, G. Cates , and M. Mollaghasemi, "Statistical and Probabilistic Extensions to Ground Operations Discrete Event Simulation Modeling," SpaceOps 2010 Conference; Huntsville, AL.
- A. Kaylani, M. Georgiopoulos, M. Mollaghasemi and G. C. Anagnostopoulos, "*MO-GART: Multiobjective Genetic ART Architectures*," 2008 IEEE Congress on Evolutionary Computation (CEC 2008), pages 1425 – 1423, June 2008, Hong Kong.
- A. Kaylani, M. Georgiopoulos, M. Mollaghasemi and G. C. Anagnostopoulos, "*Efficient Evolution of ART Neural Networks*," 2008 IEEE Congress on Evolutionary Computation (CEC 2008), pages 3455 – 3462, June 2008, Hong Kong.
- Michael Georgiopoulos , Ronald F. DeMara, Avelino J. Gonzalez, Mansooreh Mollaghasemi, Erol Gelenbe, Marcella Kysilka, Jimmy Secretan, Carthik A. Sharma, Ayman J. Alnsour, "*A Sustainable Model for Integrating Current Topics in Machine Learning Research into the Undergraduate Curriculum*," IEEE Transactions on Education, In Press.
- James Barnard, Mansooreh Mollaghasemi, "*A Services Supply Chain Framework*," ASEM National Conference 2007.
- Dayana Cope, Mohamed Sam Fayez, Mansooreh Mollaghasemi, Assem Kaylani, "*Supply Chain Simulation Modeling Made Easy: An Innovative Approach*," Winter Simulation Conference 2007, Pages 1887 - 1896.
- A. Kaylani, M. Georgiopoulos, M. Mollaghasemi, and G. Anagnostopoulos, "*Genetic Optimization of Art Neural Network Architectures*," Proceeding of Artificial Intelligence and Soft Computing (ASC) 2007 Conference, Palma de Mallorca, Spain, 8/29/2007 - 8/31/2007, pages: 225 - 230.
- Assem Kaylani, Michael Georgiopoulos, Mansooreh Mollaghasemi, Georgios Anagnostopoulos, "*m-GFAM: An elegant approach to genetically optimize Fuzzy ARTMAP Neural Network Architectures*," 8th International Conference on Natural Computing, pages: 1617 - 1623, Salt Lake City, Utah, USA, 18 - 24 July 2007.
- A. Kaylani, A. Al-Daraiseh, M. Georgiopoulos, M. Mollaghasemi, G. C. Anagnostopoulos, and A. S. Wu, "*Genetic Optimization of ART Neural Network Architectures*," Proceedings of the International Joint Conference on Neural Networks (IJCNN), Orlando, Florida, USA, August 12-17, 2007, pages: 1114-1119.
- S. Fayez, Mansooreh Mollaghasemi, Dayana Cope, Assem Kaylani, and Mike Callinan and Edgar Zapata, "Earth to Orbit Logistics and Supply Chain Modeling and Simulation for NASA Exploration Systems," *Winter Simulation Conference*, Monterey, CA, December 3-6, 2006.

- M. Zhong, M. Georgiopoulos, G. Anagnostopoulos, M. Mollaghasemi, "Generalized Entropy for splitting numerical attributes in decision tree classifiers," *Proceedings of the 19th Florida Artificial Intelligence Symposium (FLAIRS - 2006)*, Melbourne Beach, FL, May 11-13, 2006.
- M. Zhong, D. Coggeshall, E. G. Ghaneie, T. Pope, M. A. Rivera, M. Georgiopoulos, G. C. Anagnostopoulos, M. Mollaghasemi, and S. Richie, "Gap-Based Estimation: Choosing the smoothing parameters for Probabilistic and General Regression Neural Networks," *WCCI 2006*, Vancouver, Canada, July 16-21, 2006, pp. 3536-3543.
- M. Zhong, B. Rosander, M. Georgiopoulos, G. Anagnostopoulos, M. Mollaghasemi, and S. Richie, "Experiments with Micro-ARTMAP: Effect of the Network Parameters on the Network Performance," *WCCI 2006*, Vancouver, Canada, July 16-21, 2006, pp. 1699-1706.
- A. Al-Dairaseh, M. Georgiopoulos, A. S. Wu, G. Anagnostopoulos, and M. Mollaghasemi, "GFAM: A genetic algorithm optimization of Fuzzy ARTMAP," *WCCI 2006*, Vancouver, Canada, July 16-21, 2006. (Invited Paper).
- M. Georgiopoulos, E. Gelenbe, R. DeMara, A. Gonzalez, M. Kysilka, M. Mollaghasemi, A. Wu, I. Russell, G. Anagnostopoulos, J. Secretan, "Assessing and Evaluating our progress on the CRCDC Experiences at the University of Central Florida: An NSF Project," *ASEE 2006*, June 18-21, Chicago, Illinois.
- A. Al-Dairaseh, M. Georgiopoulos, A. S. Wu, and M. Mollaghasemi, "GFAM: Evolving Fuzzy ARTMAP Neural Networks," *Proceedings of the 19th Florida Artificial Intelligence Symposium (FLAIRS -- 2006)*, Melbourne Beach, FL, May 11-13, 2006; accepted for publication.
- Reeder J., Georgiopoulos, M., Castro, J., Anagnostopoulos, G., and Mollaghasemi, M., "Hilbert Space Filling Curve Nearest Neighbor," *The ISAS and CITSA 2005*, July 14-17, 2005, Orlando, FL, pp. 273-278.
- M. Zhong, B. Rosander, M. Georgiopoulos, G. Anagnostopoulos, M. Mollaghasemi, and S. Richie, "Experiments with Micro-ARTMAP: Effect of the Network Parameters on the Network Performance," *2005 Artificial Neural Networks in Engineering*, November 7-9 2005, St. Louis, MI, pp. 51-60.
- M. Zhong, J. Hecker, I. Maidhoff, P. Shibly, M. Georgiopoulos, G. Anagnostopoulos, M. Mollaghasemi, "Probabilistic Neural Network: Comparisons of the Cross-Validation Approach and a Fast Heuristic to choose the Smoothing Parameters," *2005 Artificial Neural Networks in Engineering*, November 7-9 2005, St. Louis, MI, pp. 131-140. [This paper received the best paper award in ANNIE 2005].
- M. Zhong, M. Georgiopoulos, G. Anagnostopoulos, M. Mollaghasemi, "Generalized Entropy for Splitting numerical attributes in Decision Tree Classifiers," *19th International FLAIRS Conference*, Melbourne Beach, FL, May 11-13, 2006; accepted for publication.
- A. Al-Dairaseh, M. Georgiopoulos, A. S. Wu, G. Anagnostopoulos, and M. Mollaghasemi, "GFAM: Evolving Fuzzy ARTMAP Neural Networks," *19th International FLAIRS Conference*, Melbourne Beach, FL, May 11-13, 2006; accepted for publication.

- M. Georgiopoulos, E. Gelenbe, R. DeMara, A. Gonzalez, M. Kysilka, M. Mollaghasemi, A. Wu, I. Russell, G. Anagnostopoulos, J. Secretan, "CRCD Experiences at the University of Central Florida: An NSF Project," *Proceedings of the ASEE 2005 Annual Conference and Exposition*, Session 1332, Undergraduate Research & New Directions, June 12-15 2005, Portland Oregon, 2005.
- M. Georgiopoulos, E. Gelenbe, R. DeMara, A. Gonzalez, M. Kysilka, M. Mollaghasemi, A. Wu, I. Russell, G. Anagnostopoulos, J. Secretan, "Assessing and Evaluating our progress on the CRCD Experiences at the University of Central Florida: An NSF Project," *ASEE 2006*, June 18-21, Chicago, Illinois; under review.
- Cates, G., M. Mollaghasemi, "Supporting the Vision for Space with Discrete Event Simulation," To appear in *Proceedings of the 2005 Winter Simulation Conference*, 2005, Orlando, FL.
- Cates, G., M. Mollaghasemi, "A Discrete Event Simulation Model for Assembling the International Space Station," To appear in *Proceedings of the 2005 Winter Simulation Conference*, 2005, Orlando, FL.
- Fayez, M.S., M. Mollaghasemi, and L. Rabelo "A Generic Ontology for Supply Chain Simulation Modeling," To appear in *Proceedings of the 2005 Winter Simulation Conference*, 2005, Orlando, FL.
- Eskandari, H., L. Rabelo, M. Mollaghasemi, "Multiobjective Simulation Optimization Using an Enhanced Genetic Algorithm," To appear in *Proceedings of the 2005 Winter Simulation Conference*, 2005, Orlando, FL.
- M. Georgiopoulos, J. Castro, E. Gelenbe, R. DeMara, A. Gonzalez, M. Kysilka, M. Mollaghasemi, A. Wu, I. Russell, "CRCD Experiences at the University of Central Florida: An NSF Project," *Proceedings of the ASEE 2004 Annual Conference and Exposition*, June 20-23, 2004.
- M. Mollaghasemi, M. Georgiopoulos, D. Cope, A. Donnelly, M. Steele, "Educating Middle and High School Students in Space Operations," *Proceedings of the 2004 Winter Simulation Conference*, 2004, Washington, DC, December 5-8, 2004.
- M. Georgiopoulos, E. Gelenbe, R. DeMara, A. Gonzalez, M. Kysilka, M. Mollaghasemi, A. Wu, I. Russell, G. Anagnostopoulos, J. Secretan, "CRCD Experiences at the University of Central Florida: An NSF Project," *Proceedings of the ASEE 2005 Annual Conference and Exposition*, June 12-15 2005, Portland Oregon; to appear.
- J. Reeder, M. Georgiopoulos, J. Castro, G. Anagnostopoulos, and M. Mollaghasemi, "Hilbert Space Filling Curve Nearest Neighbor," *The ISAS and CITSA 2005*, July 14-17, 2005, Orlando, FL; to appear.
- Cope, D., M. Mollaghasemi, A. Kaylani, A. Ruiz-Torres, M. Steele and M. Cowen, "An Integrated Estimation and Modeling Environment for the Design of the Orbital Space Plan" *Proceedings of the 2004 Winter Simulation Conference*, December 2004, Washington, D.C.
- Georgiopoulos, I. Russell, J. Castro, A. Wu, M. Kysilka, R. DeMara, A. Gonzalez, E. Gelenbe, M. Mollaghasemi, "A CRCD Experience: Integrating machine learning

- modules into introductory engineering and science programming courses,” *ASEE 2003 Annual Conference and Exposition*, June 22-25, Nashville, TN, 2003)
- Georgiopoulos, R. DeMara, E. Gelenbe, A. Gonzalez, M. Kysilka, M. Mollaghasemi, A. Wu, I. Russell, “Machine learning advances for Engineering and Science Education: A CRCD experience at the University of Central Florida,” *13th International Conference on Neural Networks, and 10th International Conference on Neural Information Processing (ICANN/ICONIP 2003)*, Istanbul Turkey, June 26-29, 2003)
- Georgiopoulos, J. Castro, A. Wu, R. DeMara, E. Gelenbe, A. Gonzalez, M. Kysilka, and M. Mollaghasemi, “CRCD in Machine Learning at the University of Central Florida: Preliminary Experiences,” *The 8th Annual Conference on Innovation and Technology in Computer Science Education (ITiCSE 2003)*, University of Macedonia, Thessaloniki, Gree, June 30-July 2, 2003)
- Steele, M., Mollaghasemi, M., G. Rabadi, “Generic Simulation Models of Reusable Launch Vehicles,” *Proceedings of the 2002 Winter Simulation Conference*, December 2002, San Diego, CA.
- Cates, G., Steele, M., Mollaghasemi, M., G. Rabadi, “Modeling the Space Shuttle,” *Proceedings of the 2002 Winter Simulation Conference*, December 2002, San Diego, CA.
- Mollaghasemi, M., Steele, M., Rabadi, G., and G. Cates, “A Generic Environment for Modeling Future Launch Operations (GEM-FLO),” *World Automation Congress*, June 2002, Orlando, Florida.
- Cates, G., Mollaghasemi, M., Rabadi, G., and M. Steele, “Simulation Modeling and Analysis of Space Shuttle Flight Hardware Processing,” *World Automation Congress*, June 2002, Orlando, Florida.
- Duwayri, Z., Mollaghasemi, M., and D. Nazzal, “A New Scheduling Heuristic for Bottleneck Facilities at a Plant for Semiconductor Manufacturing,” *World Automation Congress*, June 2002, Orlando, Florida.
- Johnson, M. J., M. Mollaghasemi, M. McGinnis and T. Damarla, “Human Decision Making Using Fuzzy ARTMAP Neural Networks,” *World Congress on Computational Intelligence*, Honolulu, Hawaii, May 2002.
- Rabadi, G., Anagnostopoulos G., and M. Mollaghasemi, “A Simulated Annealing Algorithm for a Scheduling Problem with Setup Times”, *Industrial Engineering Research Conference*, Orlando, Florida, May 19-22, 2002.
- Mollaghasemi, M., and G., Rabadi, “Modeling ground processes at NASA/KSC,” *Industrial Engineering Research Conference*, Orlando, Florida, May 19-22, 2002.
- Mollaghasemi, M., and G., Rabadi, “Space Shuttle Macro-Level Model”, *NASA Research and Technology 2000/2001 Annual Report*, pp. 64-65, 2001, Can be downloaded or ordered from: http://technology.ksc.nasa.gov/WWWaccess/R&T_reports.html
- Johnson, M., Mollaghasemi, M., Georgiopoulos, M., and McGinnis, M. “A Methodology for Human Behavior Modeling in Computer Generated Forces,” *Proceedings of the 10th Annual Industrial Engineering Research Conference*, May 20-22, 2001, Norcross, GA.
- Johnson, M., Mollaghasemi, M., Georgiopoulos, M., and McGinnis, M., “Improving Human Behavior in Simulations – OneSAF Testbed Baseline Intelligent

- Computer Generated Objects,” Proceedings of the Advanced Simulation Technologies Conference 2001, April 22-26.
- Cates, G., Mollaghasemi, M., and G. Rabadi, “Macro-Level Simulation Model of Space Shuttle Processing”, Proceedings of the Symposium on Military, Government and Aerospace Simulation 2001, Seattle, WA.
- Duwayri, Z., Mollaghasemi, M., and G. Rabadi, “Scheduling Setups at Bottleneck Facilities at a Semiconductor Fabrication Facility” Proceedings of the 1st International Industrial Engineering Conference, September 2001, Amman, Jordan.
- Nazzal, D., Mollaghasemi M. “Critical Tool Identification and characteristics curves construction in a wafer fabrication facility,” Proceedings of the 2001 Winter Simulation Conference, December 2001, Arlington, VA.
- Duwayri, Z., Mollaghasemi M. “Scheduling Setup Changes at Bottleneck Facilities in Semiconductor Manufacturing,” Proceedings of the 2001 Winter Simulation Conference, December 2001, Arlington, VA.
- St. Matthew-daniel, E., Mollaghasemi M., “ A Comparative Analysis of Regression and Neural Networks in Simulation Metamodeling,” Proceedings of the 2001 Winter Simulation Conference, December 2001, Arlington, VA.
- Hedlund, H., Mollaghasemi M., “A Genetic Algorithm and Indifference-Zone Ranking and Selection Framework for Simulation Optimization,” Proceedings of the 2001 Winter Simulation Conference, December 2001, Arlington, VA.
- Mollaghasemi, M., Rabadi, G., Cates, G., Steele, M., and D. Correa, “Simulation Modeling of Shuttle Hardware Processes,” Proceedings of 2000 Simulation Modeling of Maritime Operations Conference, Portofino, Italy.
- McCauley-Bell, P., Mollaghasemi, M., Picciuto, J., Waltensperger, G., “A Model for Human Factors Assessment of Equipment in the Operational Environment: The Joint Biological Point Detection System,” Proceedings of 2000 Simulation Modeling of Maritime Operations Conference, Portofino, Italy.
- Nazzal, D., Mollaghasemi M. and M. Malone, “Evaluation of the Effectiveness of Group-Screening Methods as Compared to No Group-Screening,” Proceedings of the Winter Simulation Conference, December 2000, Orlando, FL.
- Ivanova, T., Malone, M. and M. Mollaghasemi, “Comparison of a 2-stage Group Screening Design to a Standard Fractional Factorial Design for a Whole line Semiconductor Manufacturing Simulation,” Proceedings of the Winter Simulation Conference, December 1999, Phoenix, AZ.
- Nasereddin, M. and M. Mollaghasemi, “The Development of a Methodology For the Use of Neural Networks and Simulation Modeling in System Design,” Proceedings of the Winter Simulation Conference, December 1999, Phoenix, AZ.
- Nayani, N., and Mollaghasemi, M., “A methodology for Validation and Verification of Simulation Models,” Proceedings of the Winter Simulation Conference, December 1998, Washington, D.C.
- Mollaghasemi, M., “Integration of Neural Networks and Simulation Modeling for System Design,” Proceedings of the 1996 International Fuzzy System and Intelligent Control Conference, April 1996, Maui, Hawaii.

- Ivanova, T., Mollaghasemi, M., and L. Malone, “*Application of a 2-Stage Group-Screening Design to a Whole-Line Semiconductor Manufacturing Simulation Model*,” 1996 Winter Simulation Conference, San Diego, CA, December 1996.
- Briggs, D. and M. Mollaghasemi, and J. Sepulveda, “*Development of a Hybrid Modeling Approach for Planning Mass Tactical Airborne Operations*,” Proceedings of the Winter Simulation Conference, December 1995, Washington, D.C.
- Pet-Edwards, J., and Mollaghasemi, M., “*Resource Constrained Project Scheduling using Genetic Algorithms*,” Proceedings of the IEEE Conference on Systems, Man, and Cybernetics, October 1995, Vancouver, B.C.
- Stanney, K., and M. Mollaghasemi, “*A Composite Measure of Usability for Human-Computer Interface Designs*,” Proceedings of the Human Computer Interaction, July 1995, Japan.
- Crissey M., M. Mollaghasemi, G. Stone, and D. Briggs, “*Training Exercise Planning: Leveraging Technologies and Data*,” Proceedings of 1994 Interservice/Industry Training Systems Conference, November 1994, Orlando, Florida.
- Crissey M., M. Mollaghasemi, G. Stone, and D. Briggs, “*Rapid Prototyping to Efficiently Use Distributed Interactive Simulations*,” Proceedings of the 62nd Military Operations Research Symposium, August 1994, Orlando, Florida.
- Evans, G., M. Mollaghasemi, B. Stuckman, and S. Kolli, “*Global Optimization of Manufacturing System Simulations*,” Proceedings of the International Workshop on Intelligent Manufacturing Systems, Dearborn, Michigan, October 1992.
- Mollaghasemi, M., M. Mullens, and W. Swart, “*Modeling and Optimization of an Industrialized Housing Manufacturing Operation*,” Proceedings of the First IE Research Conference, Chicago, Illinois, May 1992.
- Mollaghasemi, M., M. Mullens, and W. Swart, “*Analysis of Simulation Approaches: What to Use for Industrialized Housing*,” Proceedings of the 23rd Annual Conference on Simulation and Modeling, Pittsburgh, Pennsylvania, May 1992.
- Evans, G., B. Stuckman, and M. Mollaghasemi, “*Multicriteria Optimization of Simulation Models*,” Proceedings of the 1991 Winter Simulation Conference, Phoenix, Arizona, December 1991.
- Stuckman, B., G. Evans, and M. Mollaghasemi, “*Comparison of Global Search Methods for Design Optimization Using Simulation*,” Proceedings of the 1991 Winter Simulation Conference, Phoenix, Arizona, December 1991.
- Mollaghasemi, M., G. Evans, and W. Biles, “*An Interactive Approach for Optimizing Multi-Response Simulation Models*,” Proceedings of the 13th Annual Conference for Computers and Industrial Engineering, Orlando, Florida, March 1991.
- Evans, G., and M. Mollaghasemi, “*Multicriteria Design of Manufacturing Systems Using Rapid Modeling Techniques*,” Proceedings of the Joint U.S./German Conference on New Directions for Operations Research in Manufacturing, Gaithersburg, Maryland, July 1991.

Other Scholarly Activities

- Associate Editor of Engineering Management Journal
- Reviewer for IEEE Transactions on Engineering Management
- Reviewer for Computers & Industrial Engineering
- Reviewer for Operation Research
- Reviewer for Engineering Design and Automation Journal
- Reviewer for Engineering Design and Automation Journal
- Reviewer for Human Factors and Ergonomics in Manufacturing
- Reviewer for ASCE Journal of Transportation
- Reviewer for Proceedings of the WSC Conference
- Reviewer for Proceedings of the IEMS Conference
- Textbook reviewer, McGraw-Hill
- NSF, Invited Reviewer / Panelist - Operations Research and Production Systems Division, 1994.
- Kansas Defense 2000, Proposal Reviewer, 1995.

II. TEACHING

Graduate Courses Taught

Interdisciplinary Simulation, Statistical Aspects of Digital Simulation, Discrete simulation, Advanced Engineering Economics, Decision Analysis, Operation Research

Undergraduate Courses Taught

Senior Design, Empirical methods, Honors probability and Statistics, System Simulation, IE Applications in Service Industries, Probability and Statistics for Engineers, Engineering Economics, Introduction to Industrial Engineering

Dissertations Supervised

- Ghaith Rabadi, New Algorithms for Solving the Early-Tardy Problem with Sequence Dependent Setups, **Completed** December 1999.
- Lobna Rubin, Impact of Autonomous Agents on Reducing Warehouse Cycle Time, **Completed** May 00.
- Mike Johnson, A Methodology for Human Decision Making in Training Simulations, **Completed** June 01.
- Henrik Hedlund, A Genetic Algorithm and Indifference-Zone Ranking and Selection Framework for Simulation Optimization, **Completed** May 01.
- Mahdi Nasereddin, A Methodology for the Development of Reverse Simulation Metamodels Using Neural Networks, **Completed** June 01.
- Martin Steele, Neural Networks in Simulation Input Modeling, **Completed** April 02.
- Grant Cates, Completion Time Distribution function Using Simulation, **Completed** December 2004.
- Mohamed Fayez, An automated methodology for comprehensive definition of supply chains using generic ontological components, **Completed** May 2005.
- James Barnard, A framework for Services Supply Chain Models, **Completed** December 2006.
- Niloofar Yousefi, Improved Multi-Task learning based on Local Rademacher Analysis, August 2017.

Graduate Theses Supervised

- Irin Portanaya, An Approach To Automating Data Collection In Simulation, May 2004.
- Ali Ahmad, Simulation in supply chain management, May 03.
- Dima Nazzal, A Cost-Benefit Analysis of Cycle Time Reduction in Semiconductor Manufacturing, April 2001.
- Zaid Duwayri, Scheduling Setup Changes at Bottleneck Facilities in Semiconductor Manufacturing, April 2001.
- Ben Willard, A Spreadsheet Approach for Activity Based Costing in Labor Intensive Businesses, April 1998.
- Nirupama Nayani, A Framework for Validation and Verification of simulation Models, December 1997.
- Ghaith Rabadi, Application of Genetic Algorithms to the Single-Machine Early-Tardy Problem with Sequence dependent Setup Times, August 1996.
- Houda Bennouna, Justification of Automation in Semiconductor Manufacturing, May 1996.
- Theodora Ivanova, Experimental Design Issues in Semiconductor Manufacturing, May 1996.
- Louis Tozer, A Methodology for the Assessment of Overall Equipment Effectiveness in Semiconductor Manufacturing, May 1996.
- David D. Briggs, Development of a Hybrid Modeling Approach for Airborne Personnel Manifests, May 1995.
- Grisselle Centeno, A Methodology for the Multiple Criteria Selection of Critical Processes and Alternatives in a Benchmarking Project, May 1994.
- Kenneth Lecroy, Integration of Artificial Neural Networks and Simulation Modeling for System Design, Master's Thesis, University of Central Florida, Orlando, Florida, May 1994.

Honors Theses Supervised

Eyitope St.Mattew, A Comparative Analysis of Regression and Neural Networks in Simulation Metamodeling, April 2000.

III. SERVICE

Advisor

- Faculty Advisor, UCF Student Chapter of Institute of Industrial Engineers(IIE) 1991- 1995.
- NASA Undergraduate Scholarship Program, Mentor to Ms. Belinda Smith, Undergraduate IE Minority Student, 1994-1999

Professional Association Memberships and Offices Held

- Board member, National Center for Simulation, 2010-2013
- Board of Trustees Member, Orlando Science Center, 2010-2012

World Automation Congress (WAC)

- Member of organizing committee for the 2002 conference held in Orlando, FL
- Track Coordinator

Society of Computer Simulation

- Publicity Chair, 2008 Winter Simulation Conference
- Proceedings Co-Editor, 1993 Winter Simulation Conference
- Track Coordinator, Winter Simulation Conference, 1997, 1998, 1999, 2000

IEEE

- Functional Arrangement Chair, International IEEE Conference on Systems, Man, and Cybernetics, Orlando, FL, October 1997.

Institute of Industrial Engineers (IIE)

- Senior Member, 1988-Present
- Chair, Simulation Interest Group, Operations Research Division of IIE, 1995-Present
- Newsletter Editor, Operations Research Division of the IIE, 1993-1995
- Nominee for the Director of Operations Research Division of the IIE, 1995
- Director of University Relations, Senior Chapter of IIE, Orlando, Florida, 1991-present

Institute for Operations Research and Management Sciences (INFORMS)

- Member, 1995-present

Operations Research Society of America (ORSA)

- Full Member, Operations Research Society of America (ORSA), 1991-1995
- Arrangement Co-Chair, 1992 TIMS/ORSA National Conference
- Organizer, High School Teachers Workshop with the Orange and Seminole County Schools to be held during the TIMS/ORSA Joint National Meeting held in Orlando, Florida.
- Member of ORSA Membership Committee, 1992-1994

Society of Manufacturing Engineers (SME)

- Member, 1989-1993

University Service Activities

- UCF Fellowship Committee, 2012-Present
- Member of the Core Faculty for Modeling and Simulation
- REP (Recruitment Enhancement Program) Committee, 2002.
- Budget and Administrative Committee, 2002-2003.
- Search Committee Member, Institute for Simulation and training (IST) Associate Director, 2002
- Search Committee Member, Institute for Simulation and training (IST) Director, 2001
- Multidisciplinary Committee on Simulation, Chair, 1998- 1999
- Member of the Arrangements Committee for Summer Simulation Workshop, 1999
- University Travel Committee Member, 1998- 1999
- Search Committee Member, Assistant Vice President for Academic Affairs, 1998
- University Undergraduate Curriculum Committee, 1997-1998
- UCF Grant Proposal Evaluation Committee, 1996
- Incentive/ Efficiency Committee Member, 1993-1997

College of Engineering (COE) Committees

- College of Engineering Graduate Assessment, 2012 and 2013
- College of Engineering Diversity Committee, 2010
- College of Engineering Research Committee, 2009, 2010

- College of Engineering Sabbatical Committee, 2009
- College of Engineering TIP Committee, 2005
- College of Engineering Promotion and Tenure Committee, 1999, 2000, 2001, 2002, 2003
- College of Engineering Equity Committee, 2000
- College of Engineering Equity Committee, 2000
- College of Engineering PEP Selection Committee, 1998
- Honors and Awards Committee, 1997
- University of Central Florida College of Engineering Teaching Incentive Program (TIP) Selection Committee, 1995.
- University of Central Florida College of Engineering International Committee, 1994-1997.
- University of Central Florida College of Engineering Minority Committee, 1992-1994.
- Expanding your Horizons, 1992-1994.

Industrial Engineering Department Committees

- Member of Graduate Admission Committee, 2013-Present
- Faculty Search Committee, 2009-2010; 2012-2013
- Chair, Graduate Program Task Force, 2006-2007
- Member of Graduate Program Task Force, 2002-2005; 2010-Present
- Member of the Promotion and Tenure Committee, 2001-2002
- Member of IEMS Research Committee, 2001-2002
- Chair, IEMS Research Committee, 1995-1996, 1998-1999
- Member of Honors and Awards Committee, 1998-1999
- Member of the Simulation Graduate Curriculum Committee, 1993-present.
- Engineering Management Committee for development of new programs like NASA, 1997-1998.
- IEMS Search Committee, 1997-1998
- IEMS Personnel Committee, 1996-1997
- Faculty Partner, UCF Department of Industrial Engineering, Undergraduate Industry Advisory Committee, 1995-Present.
- Chair of the Engineering Economics Graduate Curriculum Committee, 1994.
- Member of the Operations Research Graduate Curriculum Committee, 1993-Present.
- Member of the Simulation Graduate Curriculum Committee, 1993-present.
- Member of the Engineering Management Curriculum Committee, 1993-1996.