

Maria Hulett

KEY SKILLS

Expertise:	Strong analytical foundation on quantitative and statistical data analysis, engineering economy, project management, operations research, simulation, optimization, process control, forecasting, six sigma methodologies and industrial engineering tools.
Languages:	English/Spanish
Software:	Microsoft Office suite, Minitab, SQL, LyX, SAS, Design Expert, Visio, CPLEX, AMPL, Arena, Simio, Matlab, Data Mining Add-In for Excel., and RStudio.
Communication:	Extensive experience on oral presentations and writing of technical reports.

EDUCATION

Ph.D. in Industrial and Systems Engineering, Florida International University, Miami, FL, April 2010
Master of Science in Engineering Management, Florida International University, Miami, FL, August 2007
Master of Science in Business Administration, University of Táchira, Venezuela, April 2001
Industrial Engineer, University of Táchira, Venezuela, July 1995

CERTIFICATIONS

Six Sigma Green Belt, Florida International University, Miami, FL, April 2010

PROFESSIONAL EXPERIENCE

University of Miami, Lecturer, August 2010 to Present

- Department of Management Science:
 - Introductory Business Statistics MAS 201
 - Intermediate Business Statistics MAS 202
 - Applied Probability and Statistics MAS 311
 - Statistical Methods and Quality Control MAS 312
 - Computer Simulation Modeling MAS 547
 - Project Management and Modeling MAS 663
 - Stochastic Models in Operations Research MAS 442
- Department of Management Science
 - Operations Management MGT 303

Florida International University, Instructor, January 2010 to May 2010

- Instructor of Engineering Economy for the Department of Industrial and Systems Engineering.
- Teaching Assistant of Project Management and Facilities Planning for the Department of Industrial and Systems Engineering.

Florida International University, Research Assistant, May 2007 to December 2009

- Developed a heuristic method based on Tabu Search that minimized the makespan for single machine batch processing with non-identical job sizes.

- Developed prepack optimization methods for managing retail inventory using Lagrange Relaxation. Retail inventory management is a complex problem due to the variety of products and common limitations in storage space.
- Introduced analytical approximations to predict performance measures of manufacturing systems with multiple products, failures rates and parallel processing.
- Performed advanced statistical data analysis to validate analytical models (linear and non linear) derived from real data by using Minitab, Design Expert, SAS, and EXCEL on research work published on international journals and communicated on scientific meetings.

University of Táchira, Venezuela, Aggregate Professor, December 2004 to December 2006 - Assistant Professor, August 2001 to November 2004

- Lecturer of undergraduate courses in Systems and Procedures, Production Planning and Control, Accounting I, and Accounting II for the Department of Industrial Engineering.
- Cofounder and member of the Technology Management and Modern Enterprises Research Group. Research work focused on effective methods for technology transfer mechanisms between the University and surrounding business. <http://investigacion.unet.edu.ve/?portfolio=grupo-de-gestion-tecnologica>.
- Designed, executed and successfully completed two research projects founded by the University Research Council and the Venezuelan National Council for Science and Technology (FONACIT).
- Writing and presentation of technical reports to local and national research funding agencies for approval of continuing research.

University of Táchira, Venezuela, Planning Council, Industrial Engineer, October 1996 to August 2001

- Part of a team that designed and implemented the first operative plan for the University.
- Part of a team that designed and implemented a new organizational and functional structure for both academic and administrative areas within the University.

COMMUNICATIONS AND PUBLICATIONS

- Hulett, M., Damodaran, P. An iterative heuristic algorithm for minimizing total weighted tardiness of unrelated parallel batch processing machines with unequal ready times. **Proceedings of the 2019 IISE Annual Conference, Orlando, 2019.**
- Rojas M., Muthuswamy, S., Hulett, M. An ACO Algorithm for Scheduling a Flow Shop with Setup Times. **Int. J. Industrial and Systems Engineering.** To be published.
- Hulett, M., Damodaran, P. A particle swarm optimization algorithm for minimizing total weighted tardiness of unrelated parallel batch processing machines with unequal ready times. **Proceedings of the 2018 IISE Annual Conference, Orlando, 2018.**
- Hulett, M., Damodaran, P. Analytical approximations to predict order picking times at a warehouse. **Int. J. Industrial and Systems Engineering.** To be published.
- Hulett, M., Damodaran, P. Scheduling non-identical parallel batch processing machines to minimize total weighted tardiness using particle swarm optimization. **Computers & Industrial Engineering. Volume 113, November 2017, pages 425-436.**
- Hulett, M., Damodaran, P. An Artificial Bee Colony Algorithm for Minimizing Total Weighted Tardiness of Non-identical Parallel Batch Processing Machines. **Proceedings of the 2017 Industrial and Systems Engineering Conference, Pittsburgh, USA.**
- Hulett, M., Damodaran, P. *A Particle Swarm Optimization Algorithm for Minimizing the Number of Tardy Jobs of Nonidentical Parallel Batch Processing Machines.* **Proceedings of the 2016 Industrial and Systems Engineering Research Conference, Anaheim, USA.**
- Hulett, M., Damodaran, P. *A Particle Swarm Optimization Algorithm for Minimizing Weighted Tardiness of Nonidentical Parallel Batch Processing Machines.* **Proceedings of the 2015 Industrial and Systems Engineering Research Conference, Nashville, USA.**

- Hulett, M., Damodaran, P. *Fork and Join Queuing Networks to predict order picking times at a Warehouse*. **Proceedings of the 2014 Industrial and Systems Engineering Research Conference, Montreal, Canada.**
- Hulett, M., Damodaran, P. *Predicting Order Picking Times at a Warehouse*, **Proceedings of the 2013 Industrial and Systems Engineering Research Conference**, May 2013, Puerto Rico.
- Damodaran, P., Hulett M *Analytical Approximations to Predict Performance Measures of Manufacturing Systems with General Distributions, Job Failures and Parallel Processing*. **European Journal of Operational Research. 221 (2012) 74–86.**
- Hulett, M., Damodaran, P. *Analytical Approximations to Predict Performance Measures of Markovian Type Manufacturing Systems with Job Failures and Parallel Processing*. **European Journal of Operational Research. 212 (2011) 89–99.**
- Hulett, M., Damodaran, P. *Analytical Approximations to Predict Performance Measures of an Assembly Line*. **Proceedings of the 2009 Industrial Engineering Research Conference**, Miami 2009.
- Hulett, M., Damodaran, P. *Queuing Network Approximations for Server Assembly*. **INFORMS Annual Meeting**, Washington, 2008.
- Hulett, M., Damodaran, P., Mestry, S. *Minimizing the Makespan of Identical Batch Processing Machines at an Electronics Manufacturing Facility*, **INFORMS Annual Meeting**, Seattle, 2007.
- Hulett, M. *Key factors for the implementation of a business incubator in a local context. Case UNET*. **XI Seminario Latino-Iberoamericano de Gestión Tecnológica Brasil**, 2005.
- Hulett, M. *The Business Incubator: An alternative for transferring technology*. **International Conference on CAD/CAM, Robotics and Factories of the Future (CARS & FOF 2004)**, Venezuela, 2004.
- Hulett, M. *Business Incubation Model for Innovative Entrepreneurs*. **World Conference on Business Incubation**, Brasil, 2001.
- Hulett, M. *A Strategic Model of a Business Incubator for the UNET*. **IX Seminario Latino-Iberoamericano de Gestión Tecnológica**, Costa Rica, 2001.
- Hulett, M. *Modelo A strategic model for the UNET Business Incubator*. **Revista de Ciencia e Tecnología, Política e Gestao para a Periferia**. ISSN 1415-3262. Recife, Brasil, v.5, n.2, p.252-265, 2001.

SOCIETIES

Member of INFORMS and OMEGA RHO International Honor Society for Operations Research and Management Science.