Jose F. Espiritu Nolasco

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A. Education:

PhD.	Industrial & Systems Engineering	Rutgers, The State University of New Jersey New Brunswick, NJ	07/07
M.S.	Industrial & Systems Engineering	Rutgers, The State University of New Jersey New Brunswick, NJ	01/05
M.S.	Industrial Engineering	Instituto Tecnológico de Celaya Celaya, Gto. MX	06/02
B.S.	Biochemical Engineering	Instituto Tecnológico de Zacatepec	

D. Part Time Academic Experience

Rutgers, The State University   Teaching

Occupational Workshops" Large Collaboration grant (TAMU-Kingsville, Lead; UTEP, FIU, UPR-Mayaguez). 09/01/16-08/31/21. *$2,000,000 Total, (UTEP Share $332,000)*.

[F3]   J. Espiritu (PI)

[F14] H. Taboada (PI), J. Espiritu, C., M. Tambe and F. Ordonez. *Scheduling Border Security Operations in Uncertain Adversarial Domains   YEAR 3.* Department of Homeland Security (DHS)/National Center for Border Security and Immigration. Jul/10–Jun/11. *$175,000*. *Collaborative proposal with The University of Southern California.*

[F15] H. Taboada (PI), J. Espiritu, C. Gomez and N. Vargas. *An Initiative to Increase Research and Education in Sustainability Engineering*. United States Department of Agriculture (USDA). Aug/09–Jul/12. *$296,000.*

[F16] P. Golding (PI), J. Espiritu, and H. Taboada. "UTeach Engineering". *NSF/UT Austin.* July/09-Sept/11. *$100,000*

[F17] P. Golding (PI), J. Espiritu

[P-17] Ana Cram, Jose F. Espiritu and Heidi Taboada. MOEA-LUCIA: A New Multi-Objective Evolutionary Algorithm for the Evaluation of Land Use Change and Impact Assessment of Biofuel Feedstock Production. In Proceedings of the Industrial and Systems Engineering Research Conference. Pittsburgh, PA. May 20-23, 2017

[P-18] Jin, T., Taboada, H., Espiritu, J. and Liao, H. (2016) Allocation of Reliability-Redundancy and Spares Inventory under Poisson Fleet Expansion. *IISE Transactions.* Volume 49, Issue 7.

[P-19] Vargas-Hernandez, N., Taboada, H., Espiritu, J., Gomez, C. and Azuz, I. (2016) Engineering Together Sustainable Communities: Sustainability Engineering in Action. *In Proceedings of 2016 Annual American Society of Engineering Education Conference & Exposition (ASEE).* June, 2016, New Orleans, LA.

[P-20] Victor Santana-Viera, Jesus Jimenez, Tongdan Jin and Jose F. Espiritu (2015). Implementing factory demand response with onsite renewable energy: a design-of-experiment approach. *International Journal of Production Research.* Volume 53, Issue 23.

[P-28]   Nicolas Lopez and Jose F. Espiritu. (2014). A New Decision Support Tool for Optimal Hybrid Micro-Grid Configuration. *In Proceedings of the Industrial and Systems Engineering Research Conference*. May 31-June 3, 2014, Montreal, Canada.

[P-29]   Oswaldo Aguirre, Heidi A. Taboada and Jose F. Espiritu. (2014). An Automated Decision Support Model for Remote Patrolling. *In Proceedings of the Industrial and Systems Engineering Research Conference*. May 31-June 3, 2014, Montreal, Canada.

[P-30]   Anuar Aguirre, Jose F. Espiritu and Salvador Hernandez. (2013). Designing Optimal Aviation Baggage Screening Strategies Using Evolutionary Algorithms. *International Journal of Applied Evolutionary Computation*. Vol 3, Issue 1.

[P-31]   Rodney Vance and Jose F. Espiritu

[P-39]   Anuar Aguirre, Jose F. Espiritu,

[P-50]   Carlos M. Ituarte-Villareal and Jose F. Espiritu. (2011). Optimization of wind turbine placement using a viral based optimization algorithm. In *Proceedings of the Complex Adaptive Systems Conference.* Chicago, Illinois. October 31- November 2, 2011

[P-51]   Oswaldo Aguirre, Nicolas Lopez, Erick Gutierrez, Heidi A. Taboada, Jose F. Espiritu and Christopher Kiekintveld. (2011). Towards the integration of multi-attribute optimization and game theory for border security patrolling strategies. *In Proceedings of the 25th Conference on Artificial Intelligence.* San Francisco, CA. Augusth 7-11, 2011.

[P-52]   Jose F. Espiritu, Nicolas Lopez and Emmanuel Gurrola. (2011). Solving the Renewable Energy System Integration Problem Considering Multiple Objectives. In *Proceedings of the Industrial Engineering Research Conference* (IERC). Reno, NV.

[P-53]   Carlos M. Ituarte-Villareal, Oswaldo Aguirre, Jose F. Espiritu and Heidi A. Taboada. (2011). GALORA: A New Genetic Algorithm for the Level of Repair Analysis Problem. In *Proceedings of the Industrial Engineering Research Conference* (IERC). Reno, NV. May 21–25, 2011.

[P-54]   Edgar Jimenez, Anuar Aguirre & Jose F. Espiritu.

[A-14] Carlos Ituarte-Villareal, Nicolas Lopez and Jose F. Espiritu. Hybrid Power Systems Optimization using the Monkey Algorithm. *Annual Industrial Engineering Research Conference and Expo*. Orlando, Florida. May 19-23, 2012.

[A-15] Aaron Martinez, Edgar Jimenez and Jose F. Espiritu. Designing optimal aviation baggage screening strategies using the Monkey Algorithm. *Annual Industrial Engineering Research Conference and Expo*. Orlando, Florida. May 19-23, 2012.

[A-16] Nicolas Lopez and Jose F. Espiritu. Evolutionary Agent Based Micro storage Management for a Hybrid Power System. *Annual Industrial Engineering Research Conference and Expo*. Orlando, Florida. May 19-23, 2012.

[A-17] Anuar Aguirre and Jose F. Espiritu. Using Genetic Algorithms to Solve Component Replacement Problems in the Power Industry. *Annual Industrial Engineering Research Conference and Expo*. Orlando, Florida. May 19-23, 2012.

[A-

[E-2]   Jose F. Espiritu, Ralph Martinez & Ricardo Pineda Raytheon Project. Large Scale Energy Storage Systems. *Raytheon.* January 2011. (78 pages)

D. Invited Panelist/Workshop

[M.S.2]

[M.S.15] *Pedro Marquez.* Weather Prediction: Improving Accuracy Using Data Mining And Forecasting Techniques. M.S Industrial Engineering. Summer 2020.

[M.S.16] *Abdulaziz Alidrees.* Forecasting Consumer Consumption Behavior of Water Bottles Using Generlized Linear Model For Supply Chain Resilience. M.S Industrial Engineering. Fall 2020.

[M.S.17] *Brett Babcock.* Adaptive Lean Manufacturing Implementation for Organizations with Rapid Leadership Turnover. M.S Systems Engineering. Spring 2021.

Thesis committee member

Master of Science:

[M.S.1] *Carlos Ochoa.* (MS Industrial Engineering). Thesis title: Simulation modeling to Hospital response in case of Chemical, Biological, Radiological, and High-yield Explosive (CBRNE) incidents. Advisor: Dr. Rafael S. Gutierrez (Fall 2007)

[M.S.2] *Giancarlo Rayas.* (MS Electri137(of)-22( )1wu]

[M.S.10] *Samia Afrin.* (MS Mechanical Engineering). Numerical Analysis of Single Tank Thermocline Thermal Storage System for Concentrated Solar Power Plant. Advisor: Dr. Vinod Kumar. (Spring 2012)

[M.S.11] *Oswaldo Aguirre.* (MS Computational Science). Thesis Title: "New Multi-Objective Evolutionary Game Theory Algorithms for Border Security". Advisor: Dr. Heidi A. Taboada. (Spring 2012)

[M.S.12] *Satyan Awale.* (MS Civil Engineering). Carrier Collaborative Network Hybrid Hub Location and Algorithm. Advisor: Dr. Salvador Hernandez. (Spring 2012)

[M.S.13] *Georgina Heredia.* (MS Metallurgical and Materials Engineering). Influence of Shoulder Geometry on Friction Stir Welding of Aluminum 6061-T651. Advisor: Dr. Steve Stafford. (Summer 2012)

Doctor of Philosophy

[PhD.1] *Abdallah Imad.* (PhD Civil Engineering). Strategies to Improve and Preserve Flexible Pavements at Intersections. Advisor: Dr. Soheil Nazarian (Spring 2011)

[PhD.8]