CURRICULUM VITA

BIOGRAPHICAL DATA

- **Name:** LUIS. C. RABELO

- **Education**

Dual M.S. Management and Engineering, emphasis: Systems Dynamics, Systems Engineering, Technology Strategies
Dual Degree from the School of Engineering and the Sloan School of Management
Massachusetts Institute of Technology, Cambridge, MA   GPA 5.0/5.0 February 2001
Thesis: "What "Intelligent Agent" is Smarter in Business to Consumer eCommerce?"

Ph.D. Engineering Management, emphasis: Artificial Intelligence (Neural Networks/Knowledge Based Systems Hybrids)
University of Missouri, Rolla, MO   GPA 4.0/4.0 1990
Dissertation: A Hybrid Artificial Neural Networks and Knowledge-Based Expert Systems Approach to FMS Scheduling

M.S. Engineering Management, emphasis: Manufacturing Control, Theory of Constraints & JIT, and Business Functions
University of Missouri, Rolla, MO   GPA 4.0/4.0 1988

M.S. Electrical Engineering, emphasis: Computer Engineering, Digital Control, Artificial Intelligence
Florida Institute of Technology, Melbourne, FL   GPA 3.94/4.0 1987
Thesis: "Simulation and Design of a Multiprocessor System for Signal Processing"

B.S. ElectroMechanical Engineering (a 212 credit Bachelor Degree), emphasis: Power and Control Engineering
Technological University of Panama, Panama 1983
Top 10%.

- **Positions**

UNIVERSITY OF CENTRAL FLORIDA - Orlando, FL   **2001 - present**
State institution with education and research emphasis (63,500 students)
Professor (Promoted in 2017)
Associate Professor (Tenured in 2006)
- Taught and organized courses in Information Technologies, Manufacturing Technologies, Engineering Management, Artificial Intelligence, Decision Analysis, Statistics and Probabilities, Project Management, Advanced Simulation, Operations Engineering, Production and Inventory Control, Cost Engineering, Advanced Engineering Economics, Environment of Technical Organizations, Senior Design, Systems Simulation
- Coordinated research involving **24 MS** (**graduated 17 MS Students** – Advisor and co-Advisor), **45 PhD** (**graduated 35 PhD Students** – Advisor and co-Advisor), **14 undergraduate** students (including **two with Honor Theses**), and **two postdoctoral** fellows.
- Wrote research proposals to Government and Industry and received over $3,568,717.00 in research funding as PI and Co-PI.
- Attended conferences/seminars (National and International Level) and published papers in proceedings and professional journals. Delivered Several plenary/keynote speaker talks.
- Member of numerous NSF, NASA, and International Panels to judge research and technological achievements.
- Received several awards and prizes for career achievements - National and International Levels.
- Support the IEMS Department in several committees and important assignments:
  - Graduate Assessment Coordinator (Ph.D. Program, MSIE, MS) (2014 – Present)
    - Programs were considered 5- Exemplary (n=23/37, 62%)

- o Industrial Engineering - M.S.I.E./M.S.
- o Engineering Management - Professional Science Master's - M.S
- o Industrial Engineering - Ph.D.

- Undergraduate Program Coordinator (2016 - Present)
  - o Advising undergraduate students
  - o Changes to curriculum – adding new courses such as Supply Chain Engineering and revising constantly our program
  - o International Minor – Advisor
  - o Attending Open Houses (on Saturdays)
  - o Attending Industrial Board Meetings
  - o Contribution to the Undergraduate Assessment
  - o ABET Coordinator

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION (NASA) - Kennedy Space Center   **2009 - 2011**
NASA Project Manager (Agency Level) (Intergovernmental Personnel Act Assignment)
- Project Manager in charge/administration of a budget of $25Million/year, and a $100 Million Portfolio (including State Matching Funds) of 88 Current Research Projects and 27 "Fellowships and Engineering Networking" Projects being executed by more than 50 US Universities in partnerships with several NASA Centers and Laboratories. These projects are in the most advanced areas in Science, Technology, Engineering, and Mathematics.
  - o Exploration: Nanomaterials (plasmonic, etc.), Adaptive Antennas, Advance Hybrid Simulation, Advanced Robotics, New Algorithms for Image Compression, Artificial Intelligence, Propulsion Technologies, Nuclear and Plasma Systems, Nanostructured Solar Cells.
  - o Science: Carbon Cycles Studies, Global Climate Changes, Remote Sensing of the Earth, Characterization of Life under extreme environments, Remote Sensing of Bio-Diversity, Exo-planets, Blackholes and Quasars
  - o Space Operations: Cube and Nano Satellites, Design of Cube-Racks and Mini-Labs for the International Space Station, Sensor and Health Monitoring of Space Transportation Systems, Advanced Supply Chain using RFID
  - o Aeronautics Research: Next Generation, New Materials for Hypersonic Systems, Advanced Composite Materials Manufacturing, Green Aviation, High Temperature Shape Memory Alloys.
- Effectively communicate, collaborate, and coordinate with Program Manager at NASA Headquarters.
- Strategic planning and project management execution in the NASA Office of Education.
- Collaboration and Coordination with the four NASA Mission Directorates, the Office of the Chief Technologist, and the ten NASA Centers to elaborate and execute Research Plans
- Implement, manage, and assess the research projects to ensure that project objectives and intended outcomes are achieved.
- Review, approve, and submit all reports negotiated with NASA Headquarters, including weekly, monthly, and 90-day progress and activity reports.
- Work in partnership with support services personnel to assure prompt, complete input of data into NASA's tracking, reporting, and evaluation systems to facilitate program/project evaluation and assessment.
- Represent NASA: Support US Congress Inquiries
- Representative from NASA for the **White House Initiatives for Minority Institutions** (Higher Ed)

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION (NASA) - Kennedy Space Center **2002 – 2005, 2008**
NASA Fellow and Intern
- **Selected from a Nationwide search**
- Support to the Tiger Team/Problem Resolution Team (Nationwide) of the Thermal Protection System (TPS) of the Space Transportation System (STS) – NASA Shuttles (Discovery, Atlantis, Endeavour)) – Kennedy Space Center.
- System Architect to specify collaborative computing environment architecture. The architecture is a technological platform where heterogeneous models can be hosted to produce virtual environments such as a Virtual Range and a Virtual Spaceport.
- Extensive work in simulation and information technologies with the NASA Ames Research Center (ARC), NASA Johnson Space Center (JSC), and Kennedy Space Center (KSC).

HONEYWELL INTERNATIONAL - Minneapolis, MN   **1999 – 2001**
$25 billion global diversified company with 120,000 employees
Senior Principal Research Scientist – **Honeywell Technology Center**, Enterprise Optimization Group Manager.

Applied advanced scientific and engineering principles, theories and concepts in R&D programs and business development.
- Technology Strategist: Accelerated Growth Initiative, Technology Platforms Roadmaps, eCommerce Committee.
- Program Manager in a project in Optimal Design of Policies for Supply Chain Management.
- Program Manager in projects related to enterprise optimization.
- Principal investigator in a project in Enterprise Optimization project, Supply Chain Management, Technology Strategies.
- Introduced companies and partners to our group to participate in several DARPA proposals in Agents, Heterogeneous Network (Internet, Wireless, Satellite) Simulation, Ontologies for Bioterrorism, and knowledge management.
- Corporate liaison to Search Committees, projects with other companies, government agencies, and special funding.

B.F. GOODRICH - Brecksville, OH   **1996 – 1999**
$4 billion global aerospace and specialty chemicals company with 18,000 employees
Research and Development Associate – Process Technology Group of Performance Materials   (1998-1999)
Applied advanced scientific and engineering principles, theories and concepts in developing research and development programs.
- Task leader who completed the plans to implement and scale-up an intelligent control system using AI technologies for composite materials in an industrial facility.
- Proposed, planned, and coordinated an Intelligent Control System project to reduce costs, increase product consistency, and reduce cycle time.
- Introduced AI technologies in several groups of BFG Aerospace and advised several projects related to AI in the Wheels & Brakes Group and the Aerospace Sensors Division.
- Received a promotion 3 years ahead of schedule.

Senior Research and Development Engineer, Advanced Technology Group   (1996-1998)
Applied working knowledge of several disciplines to solve complex problems where little or no precedence existed.
- Developed and implemented an intelligent control system using AI technologies (Blackboard Systems using G2 from Gensym Corporation, Neural Networks, Fuzzy Logic using Matlab, Machine Learning, Probabilistic Search) for composite materials manufacturing (Batch Process) in a pilot plant Task Leader (with BFGoodrich Aerospace).
- Designed and implemented an optimization engine for sensor/data fusion using advanced algorithms programmed in C++ and interfaced (using UNIX sockets) to a commercial CAD system Task Leader with BFGoodrich Aerospace.
- Generated and initiated the concept of sensor/data fusion for a new product development program in Aerospace.
- Liaison to Search Committees, projects with other companies, and government agencies (NIST-NAVY).

OHIO UNIVERSITY - Athens, OH   **1991 - 1996**
Land-grant state institution with education and research emphasis (20,000 students)
Associate and Tenured Professor (1995 - 1996)
- ***Received promotion and Tenured*** ahead of schedule.

Assistant Professor, Department of Industrial and Systems Engineering (early tenured) (1991-1995)
- Taught and organized courses in Artificial Intelligence, Neural Networks, Production Management, Neural Networks and Operations Research.
- Coordinated research and graduated 18 MS.
- Wrote research proposals to Government and Industry and received over $250,000 in research funding as PI and Co-PI.
- Attended conferences and submitted papers to proceedings and professional journals.
- Designated journal editor, member of the program committee of several conferences, and chairperson of several sessions.

AMP - Harrisburg, PA   **1994 - 1996**
$5.6 billion global leader of electrical and electronic connectors with 40,000 employees
Consultant, Advanced Manufacturing Technologies Group
- Accomplished the development of a knowledge-based system to schedule an "advanced" factory for electronic connectors using Artificial Intelligence in collaboration with **Alan Pristker**.
- Recommended a production control system (based on computer simulations) for a new factory (Hyundai) in Korea.

NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY, Gaithersburg, MA   **1991 - 1996**
Technology unit of the US Department of Commerce
Guest Researcher, Advanced Manufacturing Research Facility (AMRF) and Fellow

- Demonstrated concepts of the "Virtual Factory" by using 3D animations, discrete-event simulations, databases, control theory, industrial scheduling software packages, and models of industrial production facilities.
- Performed research based on the integration of neural networks, genetic algorithms, and machine learning for hierarchical manufacturing control in the AMRF

UNIVERSITY OF MISSOURI - Rolla, MO   **1990 - 1991**
State institution with engineering education and research emphasis (6,000 students)
Post-Doctoral Fellow, Nuclear Engineering Department and Intelligent Systems Center
- Designed and programmed architecture for sensor signal analysis by neural networks and time series for surveillance in "fast" nuclear reactors.
- Counseled in the development of a predictive system for the customer retention problem using neural networks (sponsored and deployed for a US Organization).

CONTADORA CORPORATION - Panama, Panama   **1981 - 1985**
Consortium located in the Republic of Panama with Hotels and Commuter Airlines
Operations Manager (1983-1985)
Administered engineering services involving management (Engineering Management) of a group of 55 employees (**I was just a 23 years old engineer**!).
Operations Analyst at Corporate Level (1982-1983)
Coordinated engineering projects between the headquarters and the subsidiaries. **Promoted ahead of schedule**.
Maintenance Engineer (1981-1982)
Conducted quality control and trend-monitoring tests of turbo-prop and jet engines.
- Developed an optimization/scheduling system using the Newton Raphson numerical technique that improved the ratio of cycles/hours to reduce costs in over/haul of turbo-prop engines (savings around $250,000.00 in the first two years).

TECHNOLOGICAL UNIVERSITY OF PANAMA – Panama City, Republic of Panama   **1980 - 1982**
Land-grant state institution with engineering education and research emphasis (17,000 students)
Teaching Assistant, College of Electrical Engineering
- Grade homework and exams for several courses such as: Electromagnetic Fields, Network Theory, Introduction to Engineering.
- Taught basic laboratory courses in Electrical Engineering.

TEACHING

LIST OF COURSES (SAMPLE) – 2005-2008, 2008 (SABBATICAL), 2009-2011 (NASA IPA), 2011-2015

Course Number	Course Title	Credits	Class	Semester	# of Students	Question: Overall Effectiveness of Instructor-Method utilized after 2011 Course Evaluation Summary (Q16) % of Students with Excellent and Very Good Overall Assessment of Instructor (Method used before 2011)	Question: Overall Effectiveness of Instructor And Comments
EIN6339	Operations Engineering	3	Grad	Fall 2015	36	4.41/5.00	Mean of College of Engineering 3.93/5.00
EIN6182	Engineering Management	3	Grad	Summer 2015	30	4.56/5.00	Mean of College of Engineering 3.96/5.00
EIN6182	Engineering Management	3	Grad	Spring 2015	33	4.02	Mean of College of Engineering 3.91/5.00
EIN6339	Operations Engineering	3	Grad	Fall 2014	32	4.07/5.00	Mean of College of Engineering 3.84/5.00
EIN5140	Project Engineering	3	Grad	Summer 2014	47	4.20/5.00	Mean of College of Engineering 3.96/5.00
EIN6182	Engineering Management	3	Grad	Spring 2014	10	4.6/5.0	Mean of College of Engineering 3.87/5.00
EIN5140	Project Engineering	3	Grad	Spring 2014	34	4.06/5.0	Mean of College of Engineering 3.87/5.00
EIN6182	Engineering Management	3	Grad	Fall 2013	11	4.67/5.0	Mean of College of Engineering 3.85/5.00

EIN5140	Project Engineering	3	Grad	Summer 2013	47	**4.20/5.0**	**Mean of College of Engineering 3.96/5.00**
EIN5356	Cost Engineering	3	Grad	Spring 2013	16	**4.60/5.0**	**Mean of College of Engineering 3.86/5.00**
EIN6357	Advanced Engineering Economic Analysis	3	Grad	Fall 2012	45	**4.32/5.0**	
EIN5108	Environment of Technical Organizations	3	Grad	Summer 2012	56	**4.15/5.0**	
EIN5356	Cost Engineering	3	Grad	Spring 2012	18	**4.22/5.0**	
EIN5108	Environment of Technical Organizations	3	Grad	Fall 2011	32	**4.60/5.0**	
EIN6908	Independent Study	3	Grad	Fall 2009	1		**NASA IPA**
EIN7919	Research	3	Grad	Fall 2009	1		**NASA IPA**
EIN7980	Dissertation	9	Grad	Fall 2009	2		**NASA IPA**
EIN6918	Directed Research	3	Grad	Summer 2009	2		**NASA IPA**
EIN7919	Research	3	Grad	Summer 2009	1		**NASA IPA**
EIN7980	Dissertation	3	Grad	Summer 2009	1		**NASA IPA**
EIN7919	Research	3	Grad	Spring 2009	3		**Sabbatical/ Fulbright Scholar**
EIN7980	Dissertation	6	Grad	Spring 2009	1		**Sabbatical/ Fulbright Scholar**
EIN7919	Research	3	Grad	Fall 2008	4		**Sabbatical/ Fulbright Scholar**
EIN7980	Dissertation	9	Grad	Fall 2008	1		**Sabbatical/ Fulbright Scholar**
EIN5108	Environ. Of Technical Org.	3	Grad/ Under	Summer 2008	39	**80%**	
EIN7980	Dissertation	3	Grad	Summer 2008	1		
EIN5392C	Manufac. Syst. Eng.	3	Grad/ Und	Spring 2008	5	**100%**	
EIN7919	Research	3	Grad	Spring 2008	4		
EIN7980	Dissertation	3	Grad	Spring 2008	2		
EIN5108	Environ. Of Technical Org.	3	Grad/ Und	Fall 2007	37	**84%**	
EIN5907	Independent Study	3	Grad	Fall 2007	1		
EIN7919	Research	3	Grad	Fall 2007	2		

EIN7980	Dissertation	6	Grad	Fall 2007	4		
EIN6339	Operations Engineering	3	Grad	Spring 2007	22	**64%**	
EIN7919	Research	3	Grad	Spring 2007	3		
EIN7980	Dissertation	3	Grad	Spring 2007	4		
EIN6339	Operations Engineering	3	Grad	Fall 2006	8		
EIN7919	Research	3	Grad	Fall 2006	4		
EIN7980	Dissertation	6	Grad	Fall 2006	5		
EIN5117	Mgt. Info. Systems	3	Grad/ Und	Summer 2006	12		
EIN7919	Research	3	Grad	Summer 2006	2		
EIN7980	Dissertation	6	Grad	Summer 2006	5		
EIN5117	Mgt. Info. Systems	3	Grad	Spring 2006	10	**50%**	
EIN7919	Research	3	Grad	Spring 2006	2		
EIN7980	Dissertation	6	Grad	Spring 2006	5		
EIN6339	Operations Engineering	3	Grad	Fall 2005	10	**86%**	
EIN7919	Research	3	Grad	Fall 2005	4		
EIN7980	Dissertation	9	Grad	Fall 2005	5		
EIN5117	Mgt. Info. Systems	3	Grad/ Und	Summer 2005	19	**95%**	
EIN6971	Independ. Study	3	Grad	Summer 2005	3		
EIN7919	Research	3	Grad	Summer 2005	2		
EIN7980	Dissertation	6	Grad	Summer 2005	5		
EIN5117	Mgt. Info. Systems	3	Grad/ Und	Spring 2005	37	**93%**	
EIN6971	Independ. Study	3	Grad	Spring 2005	2		
EIN7919	Research	3	Grad	Spring 2005	2		
EIN7980	Dissertation	9	Grad	Spring 2005	6		

UNDERGRADUATE RESEARCH SUPERVISION (MENTOR/ADVISOR)

Student's Name	FUNDING	Topic	Term	Other Comments
Golfin, J.	**RAMA**	Virtual Reality	*2017-2018*	
Gluck, E.	**RAMA**	Virtual Reality	*2017-2018*	
Fredericks, A.	**RAMA**	Virtual Reality	*2017-2018*	
Frost, A.	**EXCEL/COMPASS**	Mars Base Simulation	*2017*	
Reyes, S.	**EXCEL/COMPASS**	Simulation of Smart Homes – energy efficient	*2016*	
Synnott, K.	**EXCEL/COMPASS**	Simulation of Smart Homes – energy efficient	*2016*	
Hughes, L.	**EXCEL/COMPASS**	Simulation of Smart Homes – energy efficient	*2016*	
Ford, C.	**EXCEL/COMPASS**	Virtual Simulation and Safety	*2014-2015*	One Conference Paper was written and published.
Katsarsky, A.	**EXCEL/COMPASS**	Virtual Simulation and Safety	*2014-2015*	One Conference Paper was written and published.
Riad, R.	**GSA, Lockheed Martin**	LVC Simulation	*2013-2014*	Order of Pegasus, 2 papers were written of this research (published in Conferences). She went for MS Degree.
Cantillo, A.	*Grants from the UCF Office of Research to Involve Undergraduate Students in Research*	Statistical Aspects of Simulation	*2004-2005*	Support to conference and journal papers.
Rodriguez, E.	*Grants from the UCF Office of Research to Involve Undergraduate Students in Research*	Simulation and Curriculum Development	*2004-2005*	She went for MS Degree and 2 journal papers were published.

HONOR THESES SUPERVISION (ADVISOR) – UNDERGRADUATE HONOR

Student's Name	Honor Thesis Title	Current Status	Expected Defense Term	Other Comments
Menicke, M.	**Simulation and Interpretation of Traffic Information**	Defended Spring 2003	*Completed*	Main Advisor
Trinh, V.	**Using VoiceXML to Provide Real-Time Traffic Information**	Defended Fall 2002 Supported by NASA Grant	*Completed*	Main Advisor **This Honor thesis got the prize as the best Honor Thesis in Technology in the University of**

				Central Florida 2003.

POSTDOCTORAL SUPERVISION

Name	Research Topic	Support Information	Period
Dr. John Pastrana	**LVC Simulation and Engagement Measurements**	**Korea ADD**	**Summer 2013 to Summer 2015**
Dr. Mario Marin	**Parallel Distributed Discrete Event Simulation**	**Korea ADD**	**Summer 2013 to Summer 2015**

PH.D. DISSERTATION SUPERVISION (MAIN ADVISOR AND CO-ADVISOR)

Student's Name	Dissertation Title/Topic	Current Status And Support Information	Expected Defense Term and Current Position (if Completed)	Other Comments
Alghband, M.	**Operations Research and Data Analytics**	Passed Qualifier	Spring 2020	Main Advisor
Alasim, F.	**Engineering Analytics**	New Student	Fall 2020	Main Advisor
Davis, C.	**Systems Engineering and Psychology for Complex Systems**	Passed Qualifier	Fall 2020	Main Advisor
Wooden, S.	**Comparative Analysis of the Effects of Virtual Reality Active Video Game and Controller-Free Active Video Game Play on Physiological Response, Perceived Exertion, and Hedonic Experience**	Passed Proposal	Summer 2018	Co-Advisor, Major Advisor Pamela McCauley
Basingab, A.	**Business Modeling for the Internet of Things**	**Defended Fall 2017**	**Completed**	Main Advisor
Jung, W.	**A Methodology on Weapon Combat Effectiveness Analytics Using the Big Data Generated by Live, Virtual, Or/And Constructive (LVC) Simulations**	**Defended Spring 2018**	**Completed**	Co-Advisor, Major Advisor Gene Lee
Segarra, L.	**A Contingent Approach to Studying Technical Programs in the Public Aerospace Industry**	Passed Proposal	Fall 2018	Main Advisor

Mohammed, A.	**Big Data Enterprises for Healthcare**	Passed Qualifier	Spring 2018	Main Advisor
Alshareef, K.	**Using Case-Based Reasoning for Simulation Modeling in Heathcare**	**Defended Fall 2016**	**Completed**	Main Advisor
Chen, M.	**Social Networks, Agents and Reinforcement Learning**	Passed Proposal Full Sail University	Summer 2018	Main Advisor
Ibrahim, B.	**Energy Storage Supply Chain Problem**	Passed Proposal	Fall 2018	Main Advisor
Gutierrez, E.	**Big Data and Cyber Security Frameworks**	Passed Proposal	Spring 2019	Main Advisor
Lowe, L.	**Distributed Simulation and Gaming**	Passed Proposal Cubic Systems	Summer 2018	Main Advisor
Bukhari, H.	**Healthcare Simulation ROI Framework**	**Defended Fall 2017** Saudi Arabia	**Completed**	Main Advisor
Rodriguez, E.	**Assessing Effectiveness of Serious Games to Improve Training for Multinational Peacebuilding and Emergency Management Operations**	Passed Proposal	Fall 2018	Main Advisor
Alexander, T.	**A Systems Approach To Assessing, Interpreting And Applying Human Error Mishap Data To Mitigate Risk Of Future Incidents in a Space Exploration Ground Processing Operations Environment**	**Defended Fall 2016 NASA**	**Completed Fall 2016**	Co-Advisor, Main Advisor Dr. Pamela Bush
Clark, T.	**Systems Engineering and Anomaly Detection Systems – A Framework**	Passed Proposal NASA	Summer 2018	Main Advisor
Andejany, M.	**A Framework for Lean Transformation in Developing Countries: The Case of Saudi Arabian Industry**	**Defended Spring 2017**	**Completed**	Co-Advisor, Main Advisor Dr. A. Elshennawy
Conner, A.	**Selection of Team Members for High Performance Teams**	Passed Proposal NASA	Fall 2018	Main Advisor
Bhide, S.	**Fire Safety and Emergency Evacuation Training for Building Occupants Using 3D Virtual Simulation**	**Defended Fall 2016**	**Spring 2017**	Main Advisor

Almalki, H.	**A Holistic Leadership Development Framework using Virtual Simulation**	**Defended Summer 2016** Saudi Arabian Airlines	**Completed Summer 2016**	Main Advisor
Ali, M.	**An Integrated Design for Six Sigma Framework to Align Strategy, New Process Development, & Customer Requirements in the Airline Industry**	**Defended Spring 2016**	**Completed Summer 2016**	Co-Advisor/Main Advisor: Dr. A. Elshennawy
Albar, A.	**Quantifying and Managing Emergency Department Overcrowding using Fuzzy Logic** **A copyright is being filled.**	**Defended Spring 2016**	**Completed Spring 2016**	Co-Advisor/Main Advisor: Dr. A. Elshennawy
Nagadi, K.	**A framework to generate a smart manufacturing system configuration using agents and optimization**	**Defended Spring 2016**	**Completed Spring 2016**	Main Advisor
Alomairy, M.	**The effect of Baldrige program on organization's dynamic and innovation capabilities**	**Defended Spring 2016**	**Completed Spring 2016**	Co-Advisor/Main Advisor: Dr. A. Elshennawy
Ghunakikar, S.	**A New Approach for Six Sigma Implementation of Power Generation Repair Process**	**Defended Spring 2016**	**Completed Spring 2016**	Co-Advisor/Main Advisor: Dr. A. Elshennawy
Joledo, O.	**A Hybrid Simulation Framework of Consumer-to-Consumer Ecommerce Space**	**Defended Spring 2016**	**Completed Spring 2016**	Main Advisor
Cortez, E.	**Parallel Discrete-Event Simulation Optimization using Complexity and Deep Learning**	**Defended Summer 2015** **IST Program** **NASA**	**Completed Summer 2015** **NASA**	Main Advisor
Kim, K.	**Design of a framework to measure the degree of Live, Virtual and Constructive simulation interoperability**	**Defended Spring 2015** **IST Program** South Korean ADD	**Completed** **South Korean Air Force**	Co-Advisor/Main Advisor: Dr. Gene Lee
Park, T.	**An agile roadmap for Live, Virtual and**	**Defended Spring 2015**	**Completed** **South Korean Army**	Co-Advisor/Main Advisor: Dr. Gene Lee

	Constructive-integrating training architecture (LVC-ITA): a case study using a component based integrated simulation engine	South Korean ADD		
Stuart, L.	**Innovation Economics and Smart Grids** ***This Dissertation got the prize of the best dissertation of IEMS in 2015.*** ***This dissertation is the basis for a new IEEE Standard: the OpenFMB.*** ***Four patents have been filled.***	**Defended Spring 2015** ABB/Duke Energy Fellowships	**Completed** **Director of Innovation – Duke Energy**	Main Advisor
Marin, J	**A Framework for Workforce Management, an Agent Based Simulation Approach**	**Defended Summer 2014**	**Completed** **Director of New Product Development – Symantec**	Main Advisor
Pastrana, J	**Model-Based Systems Engineering (MBSE) Approach to Distributed and Hybrid Simulation Systems**	**Defended Summer 2014** **UCF IST/DoD VA SimLearn**	**Completed** **Postdoctoral**	Main Advisor
Elattar, A.	**A Holistic Framework for Transitional Management**	**Defended Spring 2014**	**Completed** **Director of New Product Development – Symantec**	Main Advisor
Onkham, W.	**A Real Option Dynamic Decision (RODD) Framework for Operational Innovations**	**Defended Fall 2013** **Supported by several Grants**	**Completed Fall 2013** **UPS Headquarters**	Main Advisor
Odeh, K.	**Exploring the Innovation Environment within the Systems Engineering Context of a Defense Organization: A Preliminary Framework**	**Defended Summer 2013** **Supported by several Grants**	**Completed Summer 2013** **Director of Systems Engineering at Lockheed Martin Corporation**	Main Advisor
Cintron, J.	**A framework for measuring the value-added of knowledge processes with analysis of process interactions and dynamics**	**Defended Spring 2013** **Supported by several Grants**	**Completed Spring 2013** **Director of Quality Systems Engineering**	Main Advisor

			at Lockheed Martin Corporation	
	This Dissertation got the prize of the best dissertation of IEMS in 2014.			
Sarmiento, A.	**A Methodology for Stabilizing the Supply Chain**	**Defended Spring 2010** **Supported by several Grants**	**Completed** **Associate Professor (Universidad de La Sabana – Colombia)**	Main Advisor
Helal, M.	**Enterprise Simulation Using System Dynamics and DES**	**Defended Summer 2008**	**Completed** **Professor at Alexandria University, Egipt**	Main Advisor
Alvarado, K.	**Integration of SCOR and MOC for Business Re-engineering Projects in IT**	**Defended Spring 2008** **Supported by NASA Grants provided to Dr. Luis Rabelo**	**Completed** **Dean at Daytona State University**	Main Advisor
Sala-Diakanda, S.	**Information Fusion for Toxicity, Blast, and Debris Models**	**Defended Spring 2007 Supported by NASA and ONR Grants provided to Dr. Luis Rabelo**	**Completed** **Research Professor at UCF**	Main Advisor
Lacy, L.	**Simulation Ontologies using OWL**	**Defended Fall 2006**	**Completed** **Senior Engineer at DRC**	Co-Advisor/Main Advisor: Dr. Sepulveda
Quijada, S.	**Network Centric Warfare Multi-Methodology**	**Defended Summer 2006**	**Completed** **Coronel of the Chilean Army**	Co-Advisor/Main Advisor: Dr. Sepulveda
Munoz, C.	**Using Options and Game Theory to Justify Utility Computing**	**Defended Summer 2006**	**Completed** **Senior Software Manager at Disney Corporation**	Main Advisor
Dawson, J.	**A Framework for Usability of Distributed Simulation Environments**	**Defended Summer 2006** **Supported by NASA Grants provided to Dr. Luis Rabelo**	**Completed** **Senior Safety Engineer at NASA**	Main Advisor
Yousef, N.	**A Framework for Cost Modeling a Supply Chain**	**Defended Spring 2006 Supported by NASA Grants Provide to Dr. Luis Rabelo**	**Completed** **Assistant Professor Daytona State College**	Co-Advisor / Main Advisor: Jose Sepulveda
Rahal, A	**A Framework to Measure the Impact of a Patent**	**Defended Summer 2005 Supported by NSF Grant**	**Completed** **Assistant Professor at University of Arkansas**	Main Advisor

Fayez, M.	**Advanced Supply Chain Integration System**	**Defended Spring 2005**	**Completed** **Project Manager at Productivity APEX**	Co-Advisor / Main Advisor: Mansooreh Mollaghasemi
Park, J.	**A Framework for Visualizations using HLA**	**Defended Spring 2005 Supported by NASA Grants Provided to Dr. Luis Rabelo**	**Completed** **Coronel of the South Korean Navy**	Co-Advisor / Main Advisor: Jose Sepulveda.
Meade, P.	**Using Chaos and Complexity Theory for Strategic New Product Development**	**Defended Summer 2003 Supported by NASA Grants Provided to Luis Rabelo**	**Completed Engineer Manager at NASA**	Main Advisor

MS THESES SUPERVISION (MAIN ADVISOR AND CO-ADVISOR)

(Observation: It is important to know that after 2005, the MS degree without thesis was reduced from 36 hours (with thesis was 30 hours) to just 30 hours. **Therefore, the MS students selecting thesis option have dropped considerably in the IEMS Department.**

Student's Name	Thesis Title	Degree Program	Completion Date	Other Comments
Ballestas, A.	**Malware Propagation and the Internet of Things**	UniSabana	Fall 2018	Main Advisor
Rodriguez, S.	**Clinical Simulation and Lean Six-Sigma**	UniSabana	Fall 2018	Main Advisor
Roa, W.	**Clinical Simulation and Lean Six-Sigma**	UniSabana	Fall 2018	Main Advisor
Kim, J.	**MRM and Time-Based: Navy Case Study**	MS IEMS	Summer 2018	Co-Advisor, Major Advisor Gene Lee
Ortiz, D.	**Agents-based Framework to Forecast Demand of Vehicles in Colombia**	UniSabana, Colombia	Summer 2018	Main Advisor
Prada, A.	**Agents-based Framework to Forecast Demand of Vehicles in Colombia**	UniSabana, Colombia	Summer 2018	Main Advisor
Corredor, G.	**Organizational Structure for a Space Organization using System Dynamics**	UniSabana, Colombia	**Completed Spring 2018**	Main Advisor
Park, H.	**Design of a Framework for Sharing and Generating Combat Damage Assessment (CDA) of a HLA/RTI Federation**	MS IEMS	**Completed Summer 2017**	Co-Advisor, Major Advisor Gene Lee
Frigola-Vasquez, G.	**Integration of Simulation and Business Analytics**	Ramon Lull MS Program	**Completed Fall 2016**	Main Advisor
Bornacelli, M.	**Prediction of Coal Prices using Data Mining and Delphi**	UniSabana, Colombia Supported by Grants	**Completed Spring 2016**	Main Advisor
Riad, R.	**A Framework for Safety Training Using Virtual Reality**	UCF/IEMS Supported by Grants	**Completed Spring 2015**	Main Advisor
Caceres, R.	**Simulation of the Supply Chain of a Multi-Modal System**	UMIP Supported by Grants provided to Dr. Luis Rabelo	**Completed Summer 2014**	Main Advisor
Mendoza, H.	**Simulation of a Security Gate System with RFIDs and Artificial**	UMIP Supported by Grants Provided to Dr. Luis Rabelo	**Completed Summer 2014**	Main Advisor

	Intelligence-based Systems			
Walters, J.	**Success Factors for Research Grants Using System Dynamics**	UCF Employee	**Completed Fall 2013**	Main Advisor
Rachapalli, D.	**XML-Schema and RTI**	IEMS Supported by Grants provided to Dr. Luis Rabelo	**Completed Fall 2005**	Main Advisor
Sieh, R.	**Optimization of System Dynamics Models using Genetic Algorithms**	IEMS	**Completed Summer 2005**	Main Advisor
Paruchuri, A.	**SPEEDES: A Case Study in Space Operations**	IEMS Supported by Grants Provided to Dr. Luis Rabelo	**Completed Fall 2004**	Main Advisor
Nayaranan, K.	**Rollback-able Random Number Generators for the Synchronous Parallel Environment for Emulation and Discrete-Event Simulation (SPEEDES)**	IEMS Supported by Granst Provided to Dr. Luis Rabelo	**Completed Fall 2004**	Main Advisor
Wasadikar, A.	**Developing an Object-Oriented Approach for Operations Simulation in SPEEDES**	IEMS Supported by Grants Provided to Dr. Luis Rabelo	**Completed Fall 2004**	Main Advisor
Fakir, M.	**Ascertaining The Growth Of A Corporation: A System Dynamics Approach**	IEMS Supported by Grants Provided to Dr. Luis Rabelo	**Completed Fall 2004**	Main Advisor
Rosales, S.	**Study for Development of a Blast Layer for the Virtual Range Project**	IEMS	**Completed Fall 2004**	Co-Advisor / Main Advisor: Jose Sepulveda
Robledo, L.	**Analysis and integration of a debris model in the Virtual Range Project**	IEMS	**Completed Fall 2004**	Co-Advisor / Main Advisor: Jose Sepulveda
Gruber, F.	**Evolutionary Optimization of Support Vector Machines**	IEMS Supported by Grants Provided to Dr. Luis Rabelo	**Completed Fall 2004**	Main Advisor
Alvarado, K.	**Roadmap for the Supply Chain Operations Reference**	IEMS	**Completed Summer 2004**	Main Advisor

	Model to Apply It to Service Organizations			
Dhar, A.	**Analysis of Oscillation in Supply Chains**	IEMS Supported by Grants Provided to Dr. Luis Rabelo	**Completed Fall 2003**	Main Advisor
Shah, A.	**Detecting Internal and External Changes in a Supply chain and Predicting Behavior Using Neural Networks**	IEMS Supported by Grants Provided to Dr. Luis Rabelo	**Completed Summer 2003**	Main Advisor
Mehta, M.	**Using Recurrent Networks to Generate Process Plans from Experience and GT** **A paper based on this thesis got: Best paper award Services Revenue Conference - Case Study Analysis (2004)**	ISE	**Completed Fall 1997**	Main Advisor
Bush, B.	**Development of Fuzzy Systems Using Evolutionary Optimization**	ISE Supported by Grants Provided to Dr. Luis Rabelo	**Completed Fall 1996**	Main Advisor
Yao, X.	**Adaptive Pattern Recognition Scheduling for FMS**	ISE Supported by Grants Provided to Dr. Luis Rabelo	**Completed Fall 1996**	Main Advisor
Wongsangwate, P.	**Adaptive Dispatching Using Genetic Algorithms and Neural Networks**	ISE Supported by Grants Provided to Dr. Luis Rabelo	**Completed Fall 1996**	Main Advisor
Wilson, D.	**Learning Scheduling Rules from Near-Optimal Examples**	ISE	**Completed Fall 1996**	Main Advisor
Uwais, M.	**Integrating AHP and Expert Systems for Pharmaceutical Industries Portfolio Management**	ISE	**Completed Summer 1995**	Main Advisor
Toure, S.	**Hybrid Approach to the TSP using Neural Networks and OR Techniques**	ISE	**Completed Spring 1995**	Main Advisor
Onyejekwe, E.	**Using Neural Networks for Color Error Reduction in Multimedia Applications**	ISE	**Completed Spring 1995**	Main Advisor

Hooks, K.	**Integration of CAD and CAI Using AI**	ISE	**Completed Fall 1994**	Main Advisor
Kulak, F.	**Development of a Neocognitron Simulator for Group Technology Classification**	ISE	**Completed Fall 1994**	Main Advisor
Holter, T.	**Design and Development of an Intelligent Manufacturing Controller**	ISE	**Completed Spring 1994**	Main Advisor
Tsai, J.	**Genetic Algorithms for Multi-Criteria Optimization**	ISE	**Completed Fall 1993**	Main Advisor
Mannariat, L.	**Development of a Feature-Based Process Planner: an Industrial Case Study**	ISE	**Completed Fall 1993**	Main Advisor
Quiroga, L.	**Learning Fuzzy Logic from Examples**	ISE	**Completed Fall 1993**	Main Advisor
Sahinoglu, M.	**Development of a Real-Time Scheduler Using Adaptive Critics Concepts**	ISE Supported by Grants Provided to Dr. Luis Rabelo	**Completed Fall 1993**	Main Advisor
Lee, H-H.	**Design of FMS by Integrating Artificial Neural Networks and Simulation**	ISE	**Completed Fall 1992**	Main Advisor
Ma, H.	**A Decision Support System for Robotic Motion Planning Using Artificial Neural Networks**	ISE Supported by Grants Provided to Dr. Luis Rabelo	**Completed Fall 1992**	Main Advisor
Tachikawa, N.	**Modeling of a Manufacturing Company; Case Study: Honda Automotive Seat Covers Suppliers**	ISE	**Completed Summer 1992**	Main Advisor

- **List of educational contributions**

NEW COURSES DEVELOPMENT

1. **ESI 6529 – ADVANCED SYSTEMS SIMULATION**
   A project oriented course that will emphasize System Dynamics and Agent-based modeling using AnyLogic, Parallel Simulation using SPEEDES, and Distributed Simulation using the HLA/RTI. Note that this year's objective is different than the Catalog description. This is truly an Advanced course. We intend to cover state-of-the-art topics. Also, the pre-requisite for this course is ESI 6532, Object Oriented Simulation (in collaboration with Dr. Jose Sepulveda).
2. **ARTIFICIAL NEURAL NETWORKS IN MANUFACTURING (ISE 626)**
   The purpose of this course is to introduce artificial neural networks and demonstrate their possible applications in engineering systems, Industrial and Systems Engineering Department, Ohio University, (Fall 1991, Fall 1992, Winter 1994, Winter 1995, Winter 1996).
3. **COMPUTER INTEGRATED MANUFACTURING SYSTEMS (ISE 640 to be changed to ISE 650)**
   In this course advanced CIM concepts are introduced such as: Hierarchical and Distributed Control, Computer Networking and Manufacturing Systems Modeling, Design for Manufacturability and Assembly, Multi-Criteria Manufacturing Decision Making, and Manufacturing Enterprise Modeling, ISE   Department, Ohio University, (Winter 1992, Winter 1993, Winter 1994, Winter 1995).
4. **COMPUTER INTEGRATED MANUFACTURING (ME 560)**
   In this course CIM concepts are introduced such as: CAD, CAM, CNC, Process Planning, Manufacturing Process, Group Technology, CAD/CAM Integration, and CIM. This course is Lab Intensive (Several CNC machines and software packages are introduced). Mechanical Engineering Department, Ohio University. This course was developed and team-taught with Dr. R. Judd from ECE (as the principal instructor) in Fall 1993.
5. **ROBOTICS FOR MANUFACTURING SYSTEMS ENG. (ISE 414/514)**
   In this course robotics and manufacturing automation concepts are introduced. This course is Lab intensive (using the "new" Robotics and CIM Lab).
6. **GENETIC ALGORITHMS (ISE 710)**
   In this course Genetic Algorithms and Evolutionary Computation concepts are introduced. Their applications and mathematical developments are emphasized. In addition, their connections to other paradigms such as Fuzzy Logic and Neural Network are also introduced (Fall 1994, Fall 1995).
7. **ARTIFICIAL NEURAL NETWORKS USING OPERATIONS RESEARCH TECHNIQUES (ISE 726)**
   This course offers in-depth coverage of the latest developments in artificial neural networks using OR techniques. While the course concentrates most heavily on gradient -descent based neural networks, dynamic programming and numerical techniques are also described (Spring 1996).
8. **THE WORLD OF VIRTUAL REALITY AND MULTIMEDIA (TIER III)**
   An interdisciplinary course to prepare undergraduate students for the scientific and technical environments of the future, emphasizing computers, computer hardware and software, evolution and history of virtual reality.

COURSE REVISION ACTIVITIES

1. **EIN5392C MANUFACTURING SYSTEMS ENGINEERING** 2008 was revised. New sections in the course in large scale manufacturing systems and systems engineering in complex systems.
2. **EIN5108 ENVIRONMENT OF TECHNICAL ORGANIZATIONS** 2007 was revised. New sections in the course were added in Leadership, and a laboratory using simulation to train/educate in Leadership.
3. **EIN6339 OPERATIONS ENGINEERING** 2004-2005 was revised. New sections in the course were added in the Systems Engineering, Systems Thinking, Theory of Constraints, Six-Sigma, and Lean Six-Sigma..
4. **EIN5602 EXPERT SYSTEMS FOR INDUSTRIAL ENGINEERING** was revised completely. New sections in Neural Networks and support vector machines were added.
5. **STA3032H STATISTICS and PROBABILITIES for HONOR STUDENTS** was revised. New sections to incorporate the INTERNET, the WEB, and Artificial Intelligence were introduced.

6. **ESI 6358 DECISION ANALYSIS** was revised completely. The emphasis of this course was changed from a traditional viewpoint to a more systematic viewpoint. System Dynamics, complexity theory, chaos, and causality principles were added with case studies to reflect the new changes in this area.
7. **EIN6336 PRODUCTION AND INVENTORY** CONTROL was revised completely. The traditional Inventory Control has been only explained as a manufacturing related function. We have extended with more problems in the areas of the service enterprise: Health-Care, Financing, Banking. In addition, we added concepts of supply chain management. Other techniques not considered in the traditional programs in Industrial Engineering were added.
8. **EIN5177 MANAGEMENT INFORMATION SYSTEMS FOR INDUSTRIAL ENGINEERS** 2001-2002 was revised. New sections in the course were added in software engineering. These sections are important to manage projects with software components.
9. **EIN5177 MANAGEMENT INFORMATION SYSTEMS FOR INDUSTRIAL ENGINEERS** 2003-2004 was revised. New sections in the course were added in the Semantic Web and Technology Management.

NEW LABORATORY DEVELOPMENT AND ACTIVITIES

1. **NSF CENTER FOR E-DESIGN**
   Participation in the development and design of the new Center for e-Design in the Partnership 2 Bldg..
2. **DEVELOPMENT OF IN-HOUSE PROPOSAL FOR RFID LABORATORY (Spring 2005)**
   This proposal was not funded. It was intended to create a new laboratory for RFID and Supply Chain Management Applications.
3. **DEVELOPMENT OF IN-HOUSE PROPOSAL FOR IEMS NANO-TECHNOLOGY LABORATORY (Spring 2005)**
   This proposal was not funded. It was intended to create a new laboratory for nanotechnology and processes.
4. **CD FOR EIN5602**
   A CD to facilitate the lab activities of the students in this course was developed. This CD contained "EASYNN" (a software for Neural networks) and "EXSYS" (a software for expert systems development). This facilitated their assignments.
5. **CD FOR EIN5117 – 2003**
   A CD for the ancillary material and different software packages (OpenSource and FreeWare) was developed for the different assignments that the students needed
6. **CD FOR EIN5117 – 2004**
   A CD for the ancillary material and different software was developed for the different assignments that the students needed. This CD also contain lecture and other material.
7. **COMPUTER INTEGRATED MANUFACTURING LABORATORY**
   Active role in the development of a CIM cell for the College of Engineering at Ohio University.
8. **BUILDING BLOCKS OF AUTOMATION LABORATORY**
   Development of an Undergraduate Laboratory to teach principles of automation for the ISE Department at Ohio University (with PLCs, Sensors, and Automation Modules).

SUPPORT TO NEW ACADEMIC PROGRAMS

1. **IEMS SYSTEMS ENGINEERING AND MANAGEMENT (MS DEGREE)**
   Supported the organization of the program and design of courses.

2. **SYSTEM OF SYSTEMS INTEGRATION (Ph.D. DEGREE Option)**
   Supported the organization of this new program (with Dr. Sepulveda).

3. **INTERNATIONAL ENGINEERING (Minor at the College of Engineering and Computer Science)**
   Supported the organization of this new minor (with Dr. Avelino Gonzalez).

4. **LEADERSHIP ENGINEERING (Minor at the College of Engineering and Computer Science)**
   Supported the organization of this new minor (with Dr. Lesia Crumpton-Young and Dr. McCaulley-Bush).

INTERNATIONAL AGREEMENTS

1. **UCF AND UNIVERSIDAD DIEGO PORTALES (REPUBLIC OF CHILE) 2010**

Facilitated and created this international agreement. Contacted and meetings with different deans (in particular Dr. Pepe Robles – Dean of Engineering). International agreement will be in areas of research and simulation. Potential joint projects in the areas of remote sensing and simulation have been submitted to the Chilean Government.

2. **UCF AND UNIVERSIDAD DE JAEN (ANDALUCIA, SPAIN) 2008**
   Facilitated and created this international agreement. Contacted and meetings with different deans of the Universidad de Jaen. Coordinated with Angel Cardec (UCF International Office) to start the different procedures and connections.

3. **UCF AND RAMON LULL UNIVERSITAT (BARCELONA, SPAIN) 2007**
   Facilitated and created this international agreement. Contacted and meetings with different deans of Ramon Lull Universitat. Coordinated with Angel Cardec (UCF International Office) to start the different procedures and connections.

4. **UCF AND UNIVERSIDAD DE LIMA (REPUBLIC OF PERU) 2006**
   Facilitated and created this international agreement. Contacted and meetings with different deans of the Universidad de Lima. Coordinated with Angel Cardec (UCF International Office) to start the different procedures and connections.

RESEARCH

- **Keywords:** Enterprise/engineered systems simulation, hybrid continuous-discrete simulation models in a distributed-simulation-like arrangement, supply chain management, agents, the semantic web, and enterprise engineering.

- **List of Publications**

MONOGRAPHS

Williams, K. E., L. Crumpton-Young, and L. Rabelo. **The Organization of Technical Curriculum for the Acquisition of Declarative Knowledge, Monograph** VMD Verlag: Saarbrücken, Germany, 2009, 85 pages.

EDITED BOOKS

L. Rabelo, editor. **Artificial Intelligence: Advances in Research and Applications.** Nova publishers (400 Oser Avenue, Suite 1600, Hauppauge, NY 11788 USA). Fall 2017. ISBN 9781536126778.

EDITOR OF CONFERENCE PROCEEDINGS

Mehta, B. and Rabelo, L. (Editors**) Proceedings of the Ohio Aerospace Institute Neural Networks Symposium and Workshop**, Sponsored by NASA Lewis Research Center and Wright Patterson Air Force Base, 1995, Ohio University Press, Athens, Ohio, 444 pages.

REFEREED BOOK CHAPTERS

1. Rabelo, L., Gutierrez, E., Bhide, S., and Marin, M. Predictive Analytics using Genetic Programming. In: L. Rabelo (Ed). Artificial Intelligence: Advances in Research and Applications. Nova publishers (400 Oser Avenue, Suite 1600, Hauppauge, NY 11788 USA). 2017. ISBN 9781536126778.

2. Cortes, E., Rabelo, L. and Lee, G., Using Deep Learning to Configure Parallel Distributed Discrete-Event Simulators. In: L. Rabelo (Ed). Artificial Intelligence: Advances in Research and Applications. Nova publishers (400 Oser Avenue, Suite 1600, Hauppauge, NY 11788 USA). 2017. ISBN 9781536126778.

3. Rabelo, L. and A. Jones, Job Shop Scheduling, in: S. Gass, and M. Fu (Eds). Encyclopedia of Operations Research And Management Science. Springer; 3rd ed. Edition: New York, (2013).

4. Moraga, R., L. Rabelo, and A. Sarmiento, Chapter X: Towards A Methodology for Monitoring and Analyzing the Supply Chain Behavior, in: D. Laha and P. Mandal (Eds). Handbook of Computational Intelligence in Manufacturing and Production Management. Information Science Reference (IGI Global): Hershey, PA, 2008, pp. 186-208.

5. Rabelo, L., A. Jones., and A. Sharawi, Scheduling Encyclopedia Of Electrical And Electronics Engineering, in: John Webster (Ed). John Wiley & Sons: New York. Spring 2007, Section Engineering Management, pp. 1-12, http://onlinelibrary.wiley.com/doi/10.1002/047134608X.W3352/pdf.

6. Rabelo, L., T. Snell, M. Burns, and P. Meade, Analysis of Sustaining Growth in a Corporation using System Dynamics Modeling, in: Hosni and Khalil (Eds). Management of Technology: Internet Economy. Handbook Of Selected Papers. Elsevier Science: Amsterdam; 2004, pp. 545-554.

7. Rabelo, L., A. Jones, Job Shop Scheduling, in: S. Gass and C. Harris (Eds). Encyclopedia Of Operations Research And Management Science. Springer: New York; 2000, pp. 419-429.

8. Rabelo, L. and A. Jones, Scheduling, in: J. Webster (Ed). Encyclopedia Of Electrical And Electronics Engineering. John Wiley & Sons: New York, 1999, ISBN: 0471139467, CD-ROM, 388 MB.

9. Rabelo, L., A. Jones, and Y. Yih, Job Shop Scheduling, in: S. Gass and C. Harris (Eds). Encyclopedia Of Operations Research And Management Science. Kluwer Academics: London; 1996, pp. 710-721.

10. Holter, T., L. Rabelo, A. Jones, Y.Yih, and X. Yao, Integration of Neural and Genetic Algorithms for an Intelligent Controller, in: J. Liebowitz (Ed). Hybrid Intelligent Systems Applications. Cognizant Communication Corp: Elmsford, NY; 1996, pp. 27-39.

11. Rabelo, L., A. Jones, and Y. Yih, A Hybrid Approach Using Neural Networks, Simulation, Genetic Algorithms, and Machine Learning for Real-Time Sequencing and Scheduling Problems, in: P. Stampoultzis (Ed). Genetic Algorithms Applications, New Frontiers. CRC Press: Boca Raton, FL; 1995, pp. 197-220.

12. Sun, Y., Y. Yih, L. Rabelo and A. Jones, A Neural Network Based Scheduling System for Flexible Manufacturing Cells, in: I. Malstron and I. Pence (Eds). Commemorative Volume: The Materials Handling Engineering Division. The American Society of Mechanical Engineers (ASME), ASME Press: New York; 1994, pp. 61-69.

13. Rabelo, L. and S. Alptekin, A Hybrid Neural and Symbolic Processing Approach to Flexible Manufacturing Systems Scheduling Intelligent Hybrid Systems, in : A. Kandel and G. Langholz (Eds), The CRC Press: Boca Raton, FL; 1992, pp. 380 – 405.

14. Keyvan, S. and L. Rabelo, Adaptive Control, Diagnosis, and Process Monitoring, in: C. Dagli, S. Kumara, and Y. Shin (Eds), Intelligent Engineering Systems. ASME Press: New York, 1991, pp. 651–656.

PUBLISHED AND ACCEPTED PUBLICATIONS IN REFEREED JOURNALS

(I have 4 forthcoming journal articles not included in this list).

1. Nagadi, K., Rabelo, L., Basingab, M., Rahal, A., Sarmiento, A., and A. Jones (2018). "A framework to generate, evaluate, and help optimize a SMS configuration," *International Journal of Computer Integrated Manufacturing*, Vol. 31, No. 2 , pp 115-128 - Manuscript ID TCIM-2016-IJCIM-0317.

2. Jung, W., Lowe, L., Rabelo, L., Lee, G., "A Methodology on Guiding Effectiveness-Focused Training of the Weapon Operator Using Big Data and VC Simulations," SAE Int. J. Aerosp. 10(2):57-67, 2017, https://doi.org/10.4271/2017-01-2018.

3. Rabelo, L. "Tendencias en ingeniería industrial", *Revista Mutis*, Vol. 7 (1) pp. 5-6, enero-junio de 2017.

4. Chen, M. and L. Rabelo (2017). "Deadlock-Detection via Reinforcement Learning." *Industrial Engineering and Management*, 6: 215. doi:10.4172/2169-0316.1000215

5. Rabelo, L., H. Almalki, and E. Gutierrez, (2017). "Liderazgo Usando Simulacion Virtual," *Revista Espacio I + D*, 23 de Febrero de 2017, Vol. VI, Núm. 13, http://www.espacioimasd.unach.mx/articulos/num13/Liderazgo_usando_Simulacion_Virtual.php. Indexing: Latindex.

6. Odeh, K., R. Riad, and L. Rabelo. (2017), "Systems Engineering and the Innovation Environment in US Defense Organizations," *International Journal of System of Systems Engineering (IJSSE)*, Inderscience), Vol. 8. No. 3, pp. 103-120.

7. Almaiki, H., L. Rabelo, C. Davis, H. Usmani, and D. Hollister (2017), "Analyzing the Existing Undergraduate Engineering Leadership Skills," J*ournal of Systemics, Cybernetics and Informatics: JSCI* Volume 14 - Number 6 - Year 2016, pp. 35-39,

ISSN: 1690-4524, http://www.iiisci.org/journal/sci/issue.asp?is=ISS1606. This paper was considered among the best 20%-25% of the papers presented at WMSCI-MEI 2015, according to the quantitative evaluation of the reviewers who recommended its acceptance for being presented at the event. Consequently, it has been selected to be included in the Journal of Systemics, Cybernetics and Informatics: JSCI.

8. Bukhari, H., A. Andreatta, B. Goldiez, and L. Rabelo. (2017), "A framework for determining the return on investment (ROI) of simulation based training in healthcare," *Inquiry: a journal of medical care organization, provision and financing 54: 2017 Jan pg 46958016687176.*

9. Ghunakikar, S., A. Elshennawy, L. Rabelo, W. Thompson, & S. Furterer (2016), "Development of Repair Processes for Service Operated Power Generation Gas Turbine Parts using Six Sigma DFSS Approach," *Journal of Management and Engineering Integration*. Vol. 8, No. 1 | Summer 2016.

10. Gutierrez, E., L. Rabelo, M. Marin & J. Pastrana (2016), "Challenges for Intelligence and Security Information Education," *Journal of Information Privacy and Security*. DOI of paper is: 10.1080/15536548.2016.1214012, Volume 12, 2016 - Issue 3, pp. 160-163.

11. Legarra, L., H. Almaiki, Elabd, J. Gonzalez, M. Marczewski, M. Alrasheed, & L. Rabelo (2016), "A Framework for Boosting Revenue Incorporating Big Data," *Journal of Innovation Management*. Vol. 4, 1 (2016) 39-68, HANDLE: http://hdl.handle.net/10216/83250.

12. Rabelo, L. & T. Clark (2015), "Modeling Space Operations Systems Using SysML as to Enable Anomaly Detection," *SAE Int. J. Aerosp.* 8(2):2015, doi:10.4271/2015-01-2388. Selected to receive the SAE Russell S. Springer Award for SAE paper entitled, 2015-01-2388, "Modeling Space Operations Systems Using SysML as to Enable Anomaly Detection". This award is given annually by SAE to authors of an outstanding original technical paper which is a distinct contribution to the profession of mobility engineering and for the encouragement of younger members.

13. Conner, A. & L. Rabelo, (2015) "Utilizing Discrete Event Simulation for Schedule Analysis: Processes and Lessons Learned from NASA's GOPD Integrated Timeline Model," *SAE International Journal of Aerospace*, 8(1), pp. 55-59.

14. Bhide, S. & L. Rabelo (2015), "Framework for Emergency Evacuation Safety Training Using 3D Virtual Simulation," *International Journal of Engineering Research*, ISSN :(2321-1717), July 2015.

15. Crumpton-Young, L., P. McCauley-Bush, L. Rabelo, K. Menza, A. Ferreras, E. Rodriguez, A. Millan, D. Miranda, & M. Kelarestani (2015), "Engineering Leadership Development Programs A Look at What is Needed and What is Being Done," *IEEE Management Review*, Vol. 43, No 1, 2015 (DOI:10.1109/EMR.2015.7059373), pp 30 – 42.

16. Cortes, E. and Rabelo, L., "An Architecture for Monitoring and Anomaly Detection for Space Systems," *SAE Int. J. Aerosp.* 6(1):81-86, 2013, doi:10.4271/2013-01-2090.

17. Conner, A. and Rabelo, L., "Utilizing Team Productivity Models in the Selection of Space Exploration Teams," SAE Int. J. Aerosp. 6(1):32-37, 2013, doi:10.4271/2013-01-2082.

18. Rabelo, L., Sala-Diakanda, S., Pastrana, et al., "Simulation Modeling of Space Missions Using the High Level Architecture," *Modelling and Simulation in Engineering*, Vol. 2013, Article ID 967483, 12 pages, 2013. doi:10.1155/2013/967483.

19. Landsberger, M., Cruz, L., Onkham, W.,Rabelo, L., and R. Ajayi, "International Technology Investments Using Real Options: A Case Study in Telecommunications," *Journal of Management and Engineering Integration*, Vol. 6, No. 1, June 2013, pp. 1-7.

20. Rabelo, L. (2013). "Usando Simulación en los Sistemas Astronáuticos y Aeroespaciales," *Revista Espacio I + D*, Número 2 - Año 2 - Vol. II, http://www.espacioimasd.unach.mx/articulos/num2/Usando_Simulacion_en_los_Sistemas_Astronauticos_y_Aeroespaciales.php. Indexing: Latindex.

21. Rabelo, L., A. Sarmiento, M. Helal & A. Jones (2014): Supply chain and hybrid simulation in the hierarchical enterprise, *International Journal of Computer Integrated Manufacturing*, DOI:10.1080/0951192X.2014.880807, (IF = 0.825)

22. Rabelo L., L. Andrade, E. Atencio, R. Collins, P. Xanthopoulos, M. Marin, C. Arellano, P. Coiduras, B. Campos, "Preliminary Hybrid Modeling of the Panama Canal: Operations and Salinity Diffusion," *Modeling and Simulation in Engineering Journal,* Volume 2012 (2012), Article ID 806139, 9 pages, doi:10.1155/2012/806139.

23. Rabelo L., M. Marin, P. Fishwick, and Z. Ezzell, "The Semantic Web and Space Operations," *International Journal of Aerospace*, Vol. 4, No. 2,2011, pp. 652-660, doi: 10.4271/2011-01-2506.

24. Rabelo, L. "Hybrid Simulation in the Enterprise and Model-Based Systems Engineering," *Industrial Engineering & Management*, Vo. 1, No. 3, doi: 10.4172/iem.1000e108, 2012.

25. Rabelo L., Y. Zhu, J. Compton, and J. Bardina, "Ground and Range Operations for a Heavy-Lift Vehicle: Preliminary Thoughts," *International Journal of Aerospace*, Vol. 4, No. 2, 1064-1073, 2011, doi:10.4271/2011-01-2643.

26. Rabelo L., P. Fishwick, Z. Ezzell, L. Lacy, and N. Yousef, "Ontology-Centred Integration for Space Operations", *Journal of Simulation*, Vol. 6, 2012, pp. 112–124, **doi:10.1057/jos.2012**.

27. Rabelo L., A. Sarmiento, and A. Jones, "Stability of the Supply Chain Using System Dynamics Simulation and the Accumulated Deviations from Equilibrium," *Journal of Modeling and Simulation in Engineering*, Vol. 2011, Article ID 603632, 10 pages, 2011. **doi:10.1155/2011/603632**.

28. Rabelo L., "Using the Three Lenses Framework to Observe and Analyze Projects," *Int. Journal of Project Organisation and Management (IJPOM)*, Vol. 4, No. 1, 2012. pp. 54 – 74.

29. Moraga,R., L. Rabelo, A. Jones, and J. Vila, "Using Neural Networks to Monitor Supply Chain Behavior," *International Journal of Computer Applications in Technology*, Vol. 40, No.1/2, 2011, pp. 53 – 63.

30. Rabelo, L., M. Marin, and L. Huddleston, "Data Mining and Complex Problems: Case Study in Composite Materials," *International Journal of Aerospace*, Vol. 2, No. 1, 2010, pp. 165-170. It was judged and named by a panel of engineering experts as one of the most outstanding Society of Automotive Engineers (SAE) technical papers of 2009 (This award was given in 2010).

31. Álvarez, H., L. Rabelo, and D. Solís, "La Expansión del Canal de Panamá: Análisis utilizando un Modelo de Dinámica de Sistemas," *I + D Tecnológico – Revista de Investigación de la Universidad Tecnológica de Panamá*, Vol. 6, No. 1/2, ISSN # 1680-8894, 2010, pp. 33-40.

32. Crumpton-Young, L., P. McCauley-Bush, L. Rabelo, K. Menza, A. Ferreras, B. Rodriguez, A. Millan, D. Miranda, and M. Kelarestani, "Engineering Leadership Development Programs A Look at What is Needed and What is Being Done," *Journal of STEM Education: Research and Innovations*, Vol. 11, No. 3/4, 2010.

33. Yousef, N., N. Sapkota, J. Sepulveda, and L. Rabelo. "Cost Consideration of a Supply Chain Using Ontologies," *Journal of Management and Engineering Integration (JMEI)*, Vol. 3, No. 1, 2010, ISSN #: 1939-7984.

34. Sala-Diakanda, S., J. Sepulveda and L. Rabelo, "An Information Fusion- Based Metric For Space Launch Range Safety," *Information Fusion*, Vol. 11, No. 4, 201, pp. 365 – 373.

35. Sala-Diakanda, S., L. Rabelo, and J. Sepulveda, "Case for a Multidisciplinary Modelling Platform for Space Launch Risk Analysis," *Journal of Aerospace,* Vol. 116, 2008, pp. 946-950. It was judged and named by a panel of engineering experts as one of the most outstanding SAE technical papers of 2007 (This award was given in 2008).

36. Alvarez, H., D. Solis, L. Rabelo and A. Cano, "The System Dynamics Simulation of the Expansion of the Panama Canal," *International Journal of Technology, Policy and Management (IJTPM)*, Vol. 9, No.1, 2009, pp. 17 – 28.

37. Abbasi, B., L. Rabelo and M. Hosseinkouchack, "Estimating Parameters of the Three-Parameter Weibull Distribution Using Neural Network", *European Journal of Industrial Engineering,* Vol. 2, No.4, 2008, pp. 428 – 445.

38. Rabelo, L., M. Helal, and R. Moraga,"Using System Dynamics, Neural Nets, and Eigenvalues to Analyse Supply Chain Behaviour – A Case Study," *International Journal of Production Research,* Vol. 46, No. 1, 2008, pp. 51-72.

39. Alvarado, K., L. Rabelo, R. Moraga, F. Gruber, S. Quijada, and J. Sepúlveda,"Application of SCOR to E-Government: a Case Study," *International Journal of Simulation and Process Modeling,* Vol. 3, No.3, 2007, pp. 99–114.

40. Eskandari, H., S. Sala-Diakanda, S. Furterer, L. Rabelo, L. Crumpton-Young and K. Williams, "Determining the desired education characteristics and emerging topics needed in the IE curriculum to better prepare future undergraduates: A National Delphi Study," *Journal of Education + Training, Emerald Journal,* Vol. 49, No.1, 2007, pp. 45 - 55.

41. Rabelo, L., H. Eskandari, T. Shaalan, and M. Helal, "Value Chain Analysis Using Hybrid Simulation and AHP", *International Journal of Production Economics*, Vol. 105, No. 2, 2007, pp. 536-547. This paper was considered one of the TOP 25 articles from www.sciencedirect.com for the year of 2007.

42. Speller, T., L. Rabelo and A. Jones, "Value Chain Modeling Using System Dynamics," Special Issue: Cooperative Intelligent Environments for Design and Manufacturing, *International Journal of Manufacturing Technology and Management*, Vol. 11, No.2, 2007, pp. 135 – 156.

43. Alvarez, H., D. Solis, L. Rabelo and A. Cano, "La Expansión del Canal de Panamá: análisis utilizando un modelo de dinámica de sistemas – Impacto Socio-Economico en Areas Rurales," *Revista Interfases*, Universidad de Lima, Peru, Vol. 1, No. 1, 2006, online.

44. Eskandari, H. and L. Rabelo, "Handling Uncertainty in the Analytic Hierarchy Process: A Stochastic Approach," *International Journal of Information Technology and Decision Making*, Vol.5, No. 3, 2006, pp. 177-189.

45. Rahal, A. and L. Rabelo,"Assessment Framework for the Evaluation and Prioritization of University Inventions for Licensing and Commercialization," *Engineering Management Journal*, Vol. 18, No.4, 2006, pp. 28-36.

46. Marin, M., L. Rabelo, and J. Sepulveda, "Spaceport Simulation Models Integration," *Journal of Aerospace,* Vol. 114, 2006, 1264-1271. It was judged and named by a panel of engineering experts as one of the most outstanding SAE technical papers of 2005.

47. Rabelo, L., J. Sepulveda, J. Compton and R. Turner, "Simulation of Range Safety for the NASA Space Shuttle," *Aircraft Engineering and Space Technology Journal, Emerald Journals,* ISI Journal Vol. 78, No. 2, 2006, pp. 98-106(9). Every year Emerald invites each journal's Editorial Team to nominate what they feel has been that title's Outstanding Paper and up to three Highly Commended Papers from the previous 12 months. The paper "Simulation of range safety for the NASA space shuttle" published in Aircraft Engineering and Aerospace Technology: An International Journal was included among these and has been selected as a Highly Commended Winner at the Emerald Literati Network Awards for Excellence 2007.

48. Rabelo, L. and M. Helal, "Analyzing and Detecting Patterns in the Supply Chain Behavior Using System Dynamics, Neural Nets and Eigenvalue Analysis," *International Journal of Simulation and Process Modeling, V*ol. 2, No.3/4, 2006, pp. 198–209.

49. Sala-Diakanda, S., L. Rabelo and J. Sepulveda, "On the Development of a Comprehensive Hazard Modeling Tool through Distributed Simulation: Learning from the Columbia Space Shuttle Accident," *Journal of Aerospace,* Vol. 114, 2006, pp. 1186-1192. It was judged and named by a panel of engineering experts as one of the most outstanding SAE technical papers of 2005.

50. Meade, P., L. Rabelo, and A. Jones, "Applications of Chaos and Complexity Theories to the Technology Adoption Life Cycle: Case studies in the hard-drive, microprocessor, and server high-tech industries," *International Journal of Technology Management,* Vol. 36, No. 4, 2006, pp. 318 – 335.

51. Rabelo, L., J. Sepulveda, R. Moraga, J. Compton, and R. Turner, "Disaster and prevention management for the NASA shuttle during lift-off," *Disaster and Prevention Management Journal, Emerald Journal,* Vol. 15, No. 2, 2006, pp. 262 - 274. This article was one of only 10 noteworthy articles selected by the Managing Editors for inclusion in August 2006 Monthly Highlights on the Emerald website - please see http://www.emeraldinsight.com/Insight//. Each month Emerald publishes on average 450 new research articles and case studies, and only 10 are featured in the Monthly Highlights.

52. Rabelo, L., M. Helal and A. Jones, "Hybrid Simulation for Enterprise Simulations," *International Journal of Computer Integrated Manufacturing,* Vol. 18, No. 6, 2005, pp. 498-508.

53. Rabelo, L., "Intelligent Software Agents and their Role in Technology Marketing," *International Journal of Technology Marketing*, Inderscience, Vol. 1, No. 1, 2005. pp. 15-16.

54. Rabelo, L., D. Ariely, J. Vila and N. Yousef, "A Comparison of Learning Schemes for Recommender Software Agents: A Case Study in Home Furniture," *International Journal of Technology Marketing,* Inderscience, Vol. 1, No. 1, 2005, pp. 95-114.

55. Rabelo, L. and T. Speller, "Sustaining Growth in the Modern Enterprise," *Journal of Engineering and Technology Management,* Elsevier, Vol. 22, No. 4, 2005, pp. 274-290.

56. Rabelo, L., J. Sepulveda, M. Marin, and J. Park, "A Distributed Environment for Spaceports," *Journal of Aerospace,* Vol. 113, 2005, pp. 1507-1516. It was judged and named by a panel of engineering experts as one of the most outstanding SAE technical papers of 2004.

57. Sepulveda, J., L. Rabelo, and J. Compton, "A Distributed Environment for Analysis of Events Related to Range Safety," *SAE 2004 Transactions, Journal of Aerospace,* Vol. 113, 2005, pp. 1517-1521. This paper was selected to receive the 2004 Arch T. Colwell Merit Award from the Society of Automotive Engineers (SAE). This paper was selected from 2,677 which were published for SAE meetings during 2004. Papers are judged for their value as contributions to existing knowledge of mobility engineering, and primarily with respect to their value as an original contribution to the subject matter.

58. Meade, P. and Rabelo, L., "The Attractor for the Technology Adoption Life Cycle," *International Journal of Technology Forecasting and Social Change,* Elsevier, Vol. 71, No. 7, 2004, pp. 667-684.

59. Rabelo, L., "Analysis of Knowledge Management Initiatives - A Perspective from Two Companies," *Journal of Knowledge Management Practice,* August 2004, No. 70, http://www.tlainc.com/articl70.htm.

60. Rabelo, L., "Ambientes Avanzados para la Toma de Decisiones," *Politica Digital,* publicación de Nexos, Vol. 12, 2003, pp. 14-18.

61. Gunasekera, J., Z. Jia, and L. Rabelo, "Development of a Neural Network Model for Cold Rolling Processes," *Engineering Applications of Artificial Intelligence Journal,* Vol. 11, No. 5, 1998, pp. 597-603.

62. Rabelo, L., V. Shastri, E. Onjeyekwe, and J. Vila, "Neural Networks and Abductive Modeling Approaches for Multimedia Applications," *Expert Systems: The International Journal of Knowledge Engineering and Neural Networks,* Vol. 15, No. 2, 1998, pp. 110-119.

63. Mehta, B., S. Mehta and L. Rabelo, "Neural Network for Protein Prediction," *Journal of Biomedical Engineering: Applications, Basis & Communications,* Vol. 8, No. 6, 1996, pp. 80-92.

64. Rabelo, L. and V. Shastri, "Device-Independent Color Correction for Multimedia Applications Using Neural Networks and Abductive Modelling Approaches," *Scientific Computing & Automation,* Vol. 13, No. 6, 1996, pp. 101-108.

65. Gilkinson, J., L. Rabelo, and B. Bush, "*A Real World Scheduling Problem Using Genetic Algorithms,*" Computer & Industrial Engineering, An International Journal, Pergamon Press, Vol. 29, 1995, pp.177-182.

66. Holter, T., L. Rabelo, X. Yao, and A. Jones, "*Integration of Neural Networks and Genetic Algorithms for an Intelligent Manufacturing Controller*," Computer & Industrial Engineering, An International Journal, Pergamon Press, Vol. 29, 1995, pp.211-215.

67. Quiroga, L. and L. Rabelo, "*Learning From Examples: A Review of Machine Learning, Neural Networks and Fuzzy Logic Paradigms,*" Computer & Industrial Engineering, An International Journal, Pergamon Press, Vol. 29, 1995, pp. 561-567.

68. Thomas, G., R. Gerth, T. Velasco, and L. Rabelo, "Using real-coded Genetic Algorithms for Weibull Parameter Estimation," *Computer & Industrial Engineering, An International Journal,* Pergamon Press, Vol. 29, 1995, pp. 377-382.

69. Jones, A., L. Rabelo and Y. Yih, "Integration of Simulation, Neural Nets, Genetic Algorithms, and Machine Learning for FMS Scheduling," *International Journal of Computer Integrated Manufacturing,* Vol. 8, No. 2, 1995, pp. 145–154.

70. Keyvan, S., A, Durg. and L. Rabelo, "Applications of ANNs for Development of a Diagnostic Monitoring System in Nuclear Plants," *Transactions of the American Nuclear Society*, May 1993, 1, pp. 515-522.

71. Hooks, K., Velasco, T., and L. Rabelo, "Enhancing CAI Through the Integration of Quality Control and CAD," Computers & Industrial Engineering: An International Journal, Pergamon Press, Vol. 25, 1993, 511-514.

72. Rabelo, L. and X. Avula, "Adaptive Control of a Manipulator Using Artificial Neural Networks," *International Journal of Production Research, Taylor and Francis,* Vol. 30, No. 2, 1992, pp. 315 - 336.

73. Keyvan, S. and L. Rabelo, "Sensor Signal Analysis by Neural Networks for Surveillance in Nuclear Reactors," *IEEE Transactions on Nuclear Science,* Vol. 39, No. 2, 1992, pp. 292 – 298.

74. Rabelo, L. and X. Avula, "Hierarchical Neurocontroller Architecture for Intelligent Robotic Manipulation," *IEEE Control Systems, Special issue on Neural Networks in Control Systems, IEEE Press,* Apr. 1992, pp. 38-42.

75. Aylor, S., L. Rabelo and S. Alptekin, "Artificial Neural Networks for Robotics Coordinate Transformation," *Computers & Industrial Engineering: An International Journal, Pergamon Press,* Vol. 22, No. 4, 1992, pp. 481-493.

REFEREED CONFERENCE PROCEEDINGS PAPERS

1. Ibrahim, B., Gutiérrez, E., Concepción, T. and Rabelo, L. (2018), "Energy Storage and its Implications in the Future Power Grid," Proceedings of the IISE Conference, Orlando, Florida, May 2018.

2. Davis, C, and Rabelo, L. (2018), "Using Systems Engineering and Virtual Simulation to Develop Engineering Leadership Skills," Proceedings of the IISE Conference, Orlando, Florida, May 2018.

3. Gutierrez-Franco, E., Rabelo, L., Obeidat, M., Chen, M., Alaghband, M., and Clavijo, N. (2018), "Learning the Best Scheduling Policies in Manufacturing," Proceedings of the IISE Conference, Orlando, Florida, 2018.

4. Ninah, C., Strevens, B., Barcia, C., Labbe, I, Frenna, M., Faulconer, A.,,Habbaba, K., Loundy, K., Schaefer, L., Frost, A., Foran, A., Brown, R., Rabelo, L.., "A Discrete-Event Simulation of the NASA Fuel Production Plant on Mars," SAE Technical Paper 2017-01-2017, SAE Conference Proceedings, Fort Worth, Texas, 2017, https://doi.org/10.4271/2017-01-2017.

5. Loundy, K., Schaefer, L., Foran, A., Ninah, C., Bandong, K., Brown, R., Heston, H., Steed, J., Young, W.,Heinrich, M., Rabelo, L. "A Distributed Simulation of a Martian Fuel Production Facility," SAE Technical Paper 2017-01-2022, SAE AeroTech Conference Proceedings, Forth Worth, Texas, 2017, https://doi.org/10.4271/2017-01-2022.

6. Jung, W., Lowe, L., Rabelo, L., Lee, G. et al., "A Methodology on Guiding Effectiveness-Focused Training of the Weapon Operator Using Big Data and VC Simulations," SAE AeroTech Conference Proceedings, Fort Worth, Texas, 2017.

7. Helal, M., and L. Rabelo (2017). "Synchronizing Discrete Event Simulation Models and System Dynamics Models." Proceedings of the International Symposium on Industrial Engineering and Operations Management (IEOM), Bristol, UK. July 24-25, 2017. This paper was selected as a best track paper winner.of the 1st UK Symposium on Industrial Engineering and Operations Management on July 25 (Tuesday) at Bristol City.

8. Chen, M., and L. Rabelo. "Deep Reinforcement Learning in Real Time Bidding Optimization," Proceedings of the IISE 2017 conference, Pittsburgh, Pennsylvania, May 2017.

9. Clark, T., L. Rabelo, and H. Hyazici. "Extending SysML Models to Enable Automatic Generation of Fault Trees," Proceedings for for the IISE 2017 conference, Pittsburgh, Pennsylvania, May 2017.

10. Basingab, M., Rabelo, L., Nagadi, K., Gutierrez, E., Rose, C., and W. Jung. "Agent-Based Modeling for IoT Business Modeling," Proceedings of the second International Conference on Internet of Things, Data and Cloud Computing (ICC 2017), Cambridge, England, March, 2017.

11. Basingab, M., Rabelo, L., Nagadi, K., Gutierrez, E., Rose, C., and W. Jung. "Business Model Analysis Using Agent-Based Simulation for Internet of Things and Predictive Maintenance," Proceedings of IX Latin American Industrial Engineering Conference and New Trends, Porto Alegre, Brazil, October 21-23, 2016.

12. Gutierrez, E., Rabelo, L., Caceres, R., Vallarino, X., Nino, C., Mendoza, H,. and G. Frigola. "Visual Analytics Framework for a Country Logistics Observatory and Urban Planning," Proceedings of IX Latin American Industrial Engineering Conference and New Trends, Porto Alegre, Brazil, October 21-23, 2016.

13. Feliz, S., Gutierrez, E., Rabelo, L., Frigola, G., Rengifo, J., Gilbert, T., and B. Sotelo. "Systems Simulation Education. Case Studies," Proceedings of IX Latin American Industrial Engineering Conference and New Trends, Porto Alegre, Brazil, October 21-23, 2016.

14.

15. Bornacelli, M., Rabelo, L., and E. Gutierrez. "Predictive model for thermal carbon Price using Machine Learning and Delphi," Proceedings of IX Latin American Industrial Engineering Conference and New Trends, Porto Alegre, Brazil, October 21-23, 2016.

16. Bukhari, H., Goldiez, B., Rabelo, L., and J. Pastrana. "An Integrated Methodology for Determining the ROI of Simulation in Healthcare Training," Proceedings of IX Latin American Industrial Engineering Conference and New Trends, Porto Alegre, Brazil, October 21-23, 2016.

17. Almaiki, H., L. Rabelo, C. Davis, H. Usmani, and D. Hollister. "Analyzing the Existing Undergraduate Engineering Leadership Skills," Proceedings of the 20th World Multi-Conference on Systemics, Cybernetics and Informatics, Orlando, Florida, July 5 – 8, 2016, Volume II, pp. 63-67.This paper was considered among the best 20%-25% of the papers presented at WMSCI-MEI 2015, according to the quantitative evaluation of the reviewers who recommended its acceptance for being presented at the event. Consequently, it has been selected to be included in the Journal of Systemics, Cybernetics and Informatics: JSCI.

18. Jung, W., A. Mohammed, L. Rabelo, and G. Lee. "Weapon Effectiveness Using VC Simulations and Big Data," *In Industrial and Systems Engineering Research Conference (ISERC)*, Anaheim, CA, May 21-24, 2016. (CD ROM).

19. Bornacelly, M., L. Rabelo, and E. Gutierrez. "Analysis Model of Thermal Coal Price using Machine Learning and Delphi," *In Industrial and Systems Engineering Research Conference (ISERC)*, Anaheim, CA, May 21-24, 2016. (CD ROM).

20. Rabelo, L., K. Kim, T. Park, J. Pastrana, M. Marin, G. Lee, K. Nagadi, B. Ibrahim & E. Gutierrez., "Multi Resolution Modeling," Proceedings of the 2015 Winter Simulation Conference, Huntington Beach, California, December 2015 (CD ROM).

21. Rabelo, L., "Decision-Making Frameworks Using System Dynamics: Examples in Value Chain Management and Operational Innovation," Proceedings of XIII Latin American System Dynamics Conference, Cartagena, Colombia, October 21-23, 2015 (CD ROM).

22. Marin, M., L. Rabelo, J. Pastrana, E. Gutierrez & L. Norena., "Entorno Laboral: Un Enfoque de Dinámica de Sistemas Y Simulación Basada En Agentes" Proceedings of XIII Latin American System Dynamics Conference, Cartagena, Colombia, October 21-23, 2015 (CD ROM).

23. Cintron, J. L. Rabelo, A. Sarmiento, E. Gutierrez & R. Provine, "Methodology for the measuring of Knowledge using System Dynamics and Kolmogorov Measures," Proceedings of XIII Latin American System Dynamics Conference, Cartagena, Colombia, October 21-23, 2015 (CD ROM).

24. Caceres, R., L. Rabelo, H. Mendoza, G. Tunon, & J. Pastrana, "Modeling and Simulation of Berthing Processes for a Panamanian Container Terminal using BPMN and Discrete Event Simulation", Proceedings of the IEOMS Conference, Orlando, Florida 2015 (CD ROM).

25. Rabelo, L. & T. Clark (2015), "Modeling Space Operations Systems Using SysML as to Enable Anomaly Detection," Proceedings of the SAE AeroTech Conference, Seattle, Washington, 2015.

26. Conner, A. & L. Rabelo, (2015) "Utilizing Discrete Event Simulation for Schedule Analysis: Processes and Lessons Learned from NASA's GOPD Integrated Timeline Model," Proceedings of the SAE AeroTech Conference, Seattle, Washington, 2015.

27. Albar, A., A. Elshennawy, L. Rabelo, A. Rahal, and H. Bahaitham, "Assessing Emergency Department Overcrowding," Proceedings of the 21st Annual International Conference on Industry, Engineering, and Management Systems, Cocoa Beach, FL, March 2015.

28. Bhide, S., L. Rabelo, R. Riad, J. Pastrana, A. Katsarsky, and C. Ford. "Development of Virtual Reality Environment for Safety training," Proceedings of ISERC 2015 conference, Nashville, Tennessee, May 2015 (CD ROM).

29. Bhide, S., L. Rabelo. "Review Article: Simulation Based Training in Healthcare Industry," Proceedings International Convention on Challenges in Medical Education (ICCME) 2015 (CD ROM).

30. Kim, K., T. Park, J. Pastrana, M. Marin, E. Cortes, L. Rabelo & G. Lee., "Modeling of complex scenarios using LVC simulation," Proceedings of the 2014 Winter Simulation Conference, Savannah, Georgia, 2014 (CD ROM).

31. Kim, K., Park, T.W., Rabelo, L. C., & Lee, G., "An LVC Simulation Interoperability Measurement Framework," Proceedings of MODSIM WORLD 2015, Virginia Beach, Virginia, 2015 (CD ROM).

32. Park, T., K. Kim, L. Rabelo & G. Lee "An Agile Roadmap for Live, Virtual and Constructive-Integrating Training Architecture (LVC-ITA): A Case Study Using a Component Based Integrated Simulation Engine (AddSIM)," Proceedings of MODSIM WORLD 2015, Virginia Beach, Virginia, 2015 (CD ROM).

33. Almaiki, H., L. Rabelo, J. Pastrana, M. Marin and S., Bhide "Virtual Leadership Development Simulation Using the 4-D System," Proceedings of ISERC 2015 conference, Nashville, Tennessee, May 2015 (CD ROM).

34. Rabelo, L., L. Cruz, S. Bhide, O. Joledo, J. Pastrana and P. Xanthopoulos; "Analysis of the Expansion of The Panama Canal Using Simulation Modeling And Artificial Intelligence," Proceedings of the 2014 Winter Simulation Conference, Savannah, Georgia, December 2014 (CD ROM).

35. Cortes, E. and Rabelo, L., "An Architecture for Monitoring and Anomaly Detection for Space Systems," Proceedings of the SAE Aerotech Conference, Montreal, Canada, 2013.

36. Conner, A. and Rabelo, L., "Utilizing Team Productivity Models in the Selection of Space Exploration Teams," Proceedings of the SAE Aerotech Conference, Montreal, Canada, 2013.

37. Joledo, O. and Rabelo, L., "Business Model Mapping: A Social Lending Case Study and Preliminary Work," Proceedings of the ISERC Conference in Montreal, Canada, 2014 (CD ROM).

38. Kim, K., T. Park, M. Marin, J. Pastrana, R. Riad, S. Bhide, O. Joledo, L. Lowe, and L. Rabelo, "LVC Simulation and its Integration for Space Exploration and Wargaming," Proceedings of the ISERC Conference in Montreal, Canada, 2014 (CD ROM).

39. Caceres, R., H. Mendoza, S. Bhide, L. Rabelo, A. Sarmiento, and J. Pastrana, "Studies of the Carbon Footprint for a Port in the Panama Canal," Proceedings of the ISERC Conference in Montreal, Canada, 2014 (CD ROM).

40. Khaled Odeh, Rana Riad, and Luis Rabelo, "The Innovation Environment Within Systems Engineering of a Defense Organization," Proceedings of the ISERC Conference in Montreal, Canada, 2014 (CD ROM).

41. John Pastrana, Brian Goldiez, and Luis Rabelo, "Determination of Return on Investment in Healthcare Simulation," Proceedings of the ISERC Conference in Montreal, Canada, 2014 (CD ROM).

42. Onkham, W., L. Rabelo, and H. Yazici, "A Framework for Operational Innovation Selection Using Real Option Dynamic Decision," Proceedings of the ISERC Conference in Montreal, Canada, 2014 (CD ROM). **This paper received the ISERC Best Track Paper Award in Engineering Management. ISERC is the top conference in Industrial Engineering and Research.**

43. Cintron, J., L. Rabelo, W. Onkham, and A. Sarmiento, *A Framework for Measuring the Value-Added of Knowledge Processes with Analysis of Process Interactions and Dynamics*, Proceedings of the System Dynamics Conference, Cambridge, Massachusetts, 2013.

44. Elattar,A., W. Onkham, L. Rabelo, and M. Li, "Effective Leadership using System Dynamics and the Matrix of Change, by Ahmed Elattar, Wilawan Onkham, Luis Rabelo, Muyuan Li, Proceedings of the System Dynamics Conference, Cambridge, Massachusetts, 2013.

45. Landsberger M., L. Cruz, W. Onkham, L. Rabelo, and R. Ajayi, "International Technology Investments Using Real Options: A Case Study in Telecommunications," Proceedings of the *IEMS Conference 2013*, Cocoa Beach, FL, March 24-27, 2013, (CD-ROM).

46. Elattar A., M. Li, W. Onkham, and L. Rabelo, "Impact of the Leadership Transition on Innovations," Proceedings of the *IEMS Conference 2013*, Cocoa Beach, FL, March 24-27, 2013, (CD-ROM).

47. Landsberger M., W. Onkham, L. Cruz, L. Rabelo, L. Figueroa, and R. Ajayi, "Hybrid Real Options for Emerging Technologies, Green Energy, and Innovation," *Proceedings of the 2013 Industrial and Systems Engineering Research Conference, San Juan, Puerto Rico*, 2013, (CD-ROM), ISBN: 978-0-9837624-1-6.

48. Onkham W., L. Rabelo, and H. Yazici, "A Systematic Architecture of Operational Innovation," *Proceedings of the 2013 Industrial and Systems Engineering Research Conference, San Juan, Puerto Rico,* 2013, (CD-ROM), ISBN: 978-0-9837624-1-6.

49. Onkham W., A. Elattar, and L. Rabelo, "Effective Leadership using System Dynamics and the Matrix of Change," *Proceedings of the 2013 Industrial and Systems Engineering Research Conference, San Juan, Puerto Rico,* 2013, (CD-ROM), ISBN: 978-0-9837624-1-6.

50. Cintron J., W. Onkham, and L. Rabelo, "A Framework for Project Selection using Knowledge," *Proceedings of the 2013 Industrial and Systems Engineering Research Conference, San Juan, Puerto Rico,* 2013, (CD-ROM), ISBN: 978-0-9837624-1-6.

51. Pastrana J., S. Sala-Diakanda, L. Rabelo, M. Marin, S. Bhide, and O. Joledo, "Hierarchical Distributed Simulation Modeling of Space Missions," *Proceedings of the 2013 Industrial and Systems Engineering Research Conference, San Juan, Puerto Rico,* 2013, (CD-ROM), ISBN: 978-0-9837624-1-6.

52. Caceres R., L. Rabelo, and G. Tunon, "Modeling of a Panamanian Container Terminal Berth Operations as a Tools for Decision Making," *Proceedings of the Maritime Transport Conference*, Barcelona, Spain, 2012 (CD-ROM),

53. Rabelo L., R. Shetty, J. Pastrana, R. Caceres, and M. Marin, "Optical Container Code Recognition and its Impact on the Maritime Supply Chain," *Proceedings of the 2012 Industrial and Systems Engineering Research Conference, Orlando, FL*, 2012, (CD-ROM), ISBN: 978-0-9837624-1-6.

54. Rabelo L., L. Andrade, P. Xanthopoulos, and M. Marin, "Expansion of the Panama Canal: Simulation Modeling and Artificial Intelligence*," Proceedings of the 2012 Industrial and Systems Engineering Research Conference, Orlando, FL*, 2012, (CD-ROM), ISBN: 978-0-9837624-1-6.

55. Jiang H., W. Onkham, E. Zheng, and L. Rabelo, "System Dynamics Application in Organizational Learning Evaluation," *Proceedings of the 2012 Industrial and Systems Engineering Research Conference, Orlando, FL, 2012,* (CD-ROM), ISBN: 978-0-9837624-1-6.

56. Sarmiento, A., L. Rabelo and A. Jones, "A Review of Asymptotic Stability and Eigenvalue Analysis in System Dynamics," *Proceedings of the 2011 Industrial Engineering Research Conference, Reno, NV, 2011,* (CD-ROM).

57. Rabelo, L., M. Marin, P. Fishwick, and Z. Ezzell, "The Semantic Web and Space Operations," *International Journal of Aerospace*, *Proceedings of the 2011 SAE AeroTech Conference, Toulouse, France, 2011*, (CD-ROM).

58. Rabelo, L., Y. Zhu, J. Compton, and J. Bardina, "Ground and Range Operations for a Heavy-Lift Vehicle: Preliminary Thoughts," *Proceedings of the 2011 SAE AeroTech Conference, Toulouse, France, 2011*, (CD-ROM).

59. Zhu, Y., M. Marin, L. Andrade, E. Atencio, and L. Rabelo, "Hybrid Modeling And Supply Chain Management," *Proceedings of the 2010 Winter Simulation Conference*, December, 2010, Baltimore, Maryland (CD-ROM).

60. Pastrana, J., M. Marin, M. Helal and L. Rabelo, "Hierarchical Scheduling," *Proceedings of the 2010 Winter Simulation Conference*, December, 2010, Baltimore, Maryland (CD-ROM).

61. Sarmiento, A., L. Rabelo, and A. Jones, "Using Particle Swarm Optimization With A Policy Optimization Approach To Stabilize The Supply Chain," *Proceedings of the 2009 Winter Simulation Conference*, Austin, Texas, December 13-16, 2009, (CD-ROM).

62. Rabelo, L., M. Marin, and L. Huddleston, "Data Mining and Complex Problems: Case Study in Composite Materials", *Proceedings Of The Sae Aerotech 2009 Congress*, Seattle, Washington, November 10-12, 2009, 09ATC-0194 (CD-ROM).

63. Zhu, Y., M. Bull, H. Akin, J. Sepulveda, and L. Rabelo, "A Multi-Agent System to Simulate Navy Environments," *Proceedings of the 2009 Industrial Engineering Research Conference*, Miami, FL, 2009, pp. 90-95.

64. Zhu, Y., M. Bull, H. Akin, J. Sepulveda, and L. Rabelo, " Information Fusion in Underwater Sonar Simulation" *Proceedings of the 2008 Winter Simulation Conference*, Miami, Florida, December 7-10, 2008, pp. 1250-1258.

65. Sarmiento, A., L. Rabelo, R. Moraga, and A. Jones, "A Parameter Estimation Method to Minimize Instabilities in System Dynamic Models." *Proceedings of the 2008 Intl Conf of the System Dynamics Society*, July 21 – July 24, Athens, Greece, 2008, (CD-ROM).

66. Marin, M., S. Sala-Diakanda, L. Rabelo, J. Sepulveda, and K. Williams, "Developing a database that executes comprehensive, comparative analyses among undergraduate industrial engineering programs nationwide," *Proceedings of the 2008 Industrial Engineering Research Conference; J. Fowler and S. Mason, eds.*, Vancouver, Canada, 2008, pp. 1653-1659.

67. Yousef, N., D. Miranda, L. Rabelo, and J. Sepulveda, "Forecasting Workforce Requirements For Systems Engineering Integrated Projects," *Proceedings of the 2008 Industrial Engineering Research Conference; J. Fowler and S. Mason, eds.*, Vancouver, Canada, 2008, pp. 290-295.

68. Rabelo, L. and T. Housel, "Estimating the Knowledge Value-Added of Information Technology Investments," *Proceedings of the 2008 Industrial Engineering Research Conference; J. Fowler and S. Mason, eds.*, Vancouver, Canada, 2008, pp. 1849-1854.

69. Alvarado, K., L. Rabelo, and R. Eaglin, "Stakeholder Value Mapping Framework For Supply Chain Improvement When Implementing IT Solutions," *Proceedings of the 2008 Industrial Engineering Research Conference; J. Fowler and S. Mason, eds.,* Vancouver, Canada, 2008, pp. 1320-1325.

70. Balderrama, M., G. Reyes, and L. Rabelo, "Design Of A Methodology To Update The Curriculum Contents In CIM Technology In The Industrial Engineering Degree Of Spain," *Conference Proceedings of SEFI (Societe Europeenne pour la Formation des Ingenieurs) 2008, 36th Annual Conference*, Aalborg, Denmark, July 2 -5, 2008, (CD-ROM).

71. Sala-Diakanda, S., L. Rabelo, and J. Sepulveda, "Case for a Multidisciplinary Modeling Platform for Space Launch Risk Analysis," *Conference Proceedings of the SAE Aerotech,* Los Angeles, CA, 2007, (CD-ROM).

72. Fishwick, P., Z. Ezzell, N. Yousef, D. Miranda, H. Akin, L. Rabelo, and J. Sepulveda, "Ontology-centered Integration of Project Management, Cost and Resource Modeling with Analysis, Simulation and Visualization: A Case Study of Spaceport Operations," *Proceedings of the 2007 Winter Simulation Conference*, Washington, DC, December 9-12, 2007, pp. 2032-2040.

73. Sarmiento, A., L. Rabelo and R. Moraga, "Stability Analysis of the Supply Chain using Neural Networks and Genetic Algorithms," *Proceedings of the 2007 Winter Simulation Conference*, Washington, DC, December 9-12, 2007, pp. 1968-1976.

74. Zhu, Y., S. Sala-Diakanda, L. Rabelo, M. Bull and J. Sepulveda, "Integration of Underwater Sonar Simulation with a Geographical Information System," *Proceedings of the 2007 Winter Simulation Conference*, Washington, DC, December 9-12, 2007, pp. 1378-1386.

75. Helal M., L. Rabelo, J. Sepúlveda, and A. Jones, "A methodology for Integrating and Synchronizing the System Dynamics and Discrete Event Simulation Paradigms", *Proceedings of The 2007 Intl Conf of the System Dynamics Society*, Boston, MA, July 29 - Aug 2, 2007 (CD-ROM).

76. Furterer, S., A. Sharawi, L. Crumpton-Young, L. Rabelo, K. Williams, and G. St. John, "A Departmental Reform Strategy And The Resultant National Model For An Undergraduate Industrial Engineering Curriculum," *Proceedings of the ASEE Annual Conference*, Honolulu, Hawaii, June 24 – 27, 2007, (CD-ROM).

77. Sepulveda, J., L. Rabelo, H. Akin and Y. Zhu, "Modeling the Effectiveness of Underwater Sonar," *Proceedings of the 2006 Winter Simulation Conference*, Monterey, California, December 3-6, 2006, pp. 672-679.

78. Sala-Diakanda, S., L. Rabelo, H. Akin, and Y. Zhu, "Information Fusion and Component Development for Space Launch Risk Analysis," *Proceedings of the 2006 Winter Simulation Conference*, Monterey, California, December 3-6, 2006, pp. 2290-2290.

79. Sharawi, A., S. Sala-Diakanda, A. Dalton, S. Quijada, N. Yousef, L. Rabelo, and J. Sepulveda, "A Distributed Simulation Approach for Modeling and Analizing System of Systems," *Proceedings of the 2006 Winter Simulation Conference*, Monterey, California, December 3-6, 2006, pp. 1028-1035.

80. Crumpton-Young, L., A. Ferreras, S. Furterer, L. Rabelo, and K. Williams, "The Development of a Curriculum to Instill Engineering Leadership & Management Skills in Undergraduate Students" *5th Global Colloquium in Engineering Education*, 2006, (CD-ROM).

81. Ferreras, A., L. Crumpton-Young, L. Rabelo, K.Williams, and S. Furterer, "Work in Progress: Developing a Curriculum that Teaches Engineering Leadership & Management Principles to High Performing Students," *36th ASEE/IEEE Frontiers in Education Conference 2006*, San Diego, CA, October 28 – 31, 2006, (CD-ROM).

82. Yousef, N., L. Rabelo, and J. Sepulveda,"A Framework for Cost Modeling a Supply Chain," *Proceedings of the IIE Industrial Engineering Research Conference*, 2006, (CD-ROM).

83. Rahal, A. and L. Rabelo, "Is your Technology Licensable? What Are The Chances?" *Proceedings of the IIE Industrial Engineering Research Conference,* 2006, (CD-ROM).

84. Alvarez, H., S. Solis, L. Rabelo, A. Sarmiento, and A. Cano, "Developing a Simulation Model for Complex Societal Decision Making Processes using System Dynamics: The Case of the Panama Canal," *Proceedings of the IIE Industrial Engineering Research Conference*, 2006, (CD-ROM).

85. Sala-Diakanda, S. and L. Rabelo, "Communicating Public Risks from Operations of Future Spaceports with GIS," *Proceedings of the IIE Industrial Engineering Research Conference*, 2006, (CD-ROM).

86. Furterer, S., J. Jenness, J. Steinberg, L. Crumpton-Young, K. Williams, and L. Rabelo, "Experiential Learning Opportunities Incorporated Into an Undergraduate IE Curriculum," *Proceedings of the American Society for Engineering Education Conference*, June 2006, (CD-ROM).

87. Helal, M. and L. Rabelo, "Interactions of the Three Management Levels in the Manufacturing Enterprise using Hybrid Simulation," *Proceedings of the IIE Industrial Engineering Research Conference*, 2006, (CD-ROM).

88. Sharawi, A., S. Sala-Diakanda, A. Dalton, S. Quiajada, N. Yousef, J. Sepulveda, and L. Rabelo, "System of Systems: Definitions and Simulation Modeling," *Proceedings of the IIE Industrial Engineering Research Conference*, 2006, (CD-ROM).

89. Marin, M., L. Rabelo, and J. Sepulveda, "Spaceport Simulation Models Integration," *Proceedings of the World Aviation Congress 2005*, Dallas, TX, 2005, (CD-ROM).

90. Rabelo, L, H. Eskandari, T. Shaalan, and M. Helal, "Evaluating Enterprise Level Decisions Using Hybrid Discrete Event-System Dynamic," *Proceedings of the IEEE International Conference on Service Operations and Logistics*, Beijing, China, 2005, (CD-ROM).

91. Rabelo, L. and Jones, A., "Monitoring Supply Chain Behavior Using Neural Nets," *Proceedings of the IEEE International Conference on Service Operations and Logistics*, Beijing China, 2005 (CD-ROM).

92. Sala-Diakanda, S., L. Rabelo, S. Rosales, L. Robledo, J. Sepúlveda, and J. Compton, "Integration Study of Prospective Hazards Models for the Enhancement of a Virtual Range Simulation Model," *Proceedings of the 2005 Winter Simulation Conference*, Orlando, FL, December 4-7, 2005, pp. 2427-2436.

93. Eskandari, H., L. Rabelo, and M. Mollaghasemi, "Multiobjective Simulation Optimization Using an Enhanced Genetic Algorithm," *Proceedings of the 2005 Winter Simulation Conference*, Orlando, FL, December 4-7, 2005, pp. 833-841.

94. Rabelo, L, H. Eskandari, T. Shaalan, and M. Helal, "Supporting Simulation-Based Decision Making with the use of AHP Analysis," *Proceedings of the 2005 Winter Simulation Conference*, Orlando, FL, December 4-7, 2005, pp. 2042-2051.

95. Park, J., R. Moraga, L. Rabelo, J. Dawson, M. Marin, and J. Sepulveda, "Addressing Complexity Using Distributed Simulation: A Case Study in Spaceport Modeling," *Proceedings of the 2005 Winter Simulation Conference,* Orlando, FL, December 4-7, 2005, pp. 1804-1812.

96. Arcas, J., S. Quijada, L. Rabelo, and C. Renner, "A Spatio Temporal Simulation Model for Evaluating Delinquency and Crime Policies," *Proceedings of the 2005 Winter Simulation Conference*, Orlando, FL, December 4-7, 2005, pp. 1328-1334.

97. Fayez, M., L. Rabelo and M. Mollaghasemi, "Ontologies in Supply Chain Management Simulation," *Proceedings of the 2005 Winter Simulation Conference*, Orlando, FL, December 4-7, 2005, pp. 2364-2370.

98. Sala-Diakanda, S., L. Rabelo, and J. Sepulveda, "On the Development of a Comprehensive Hazard Modeling Tool through Distributed Simulation: Learning from the Columbia Space Shuttle Accident," *Proceedings of the World Aviation Congress 2005*, Dallas, TX, 2005, (CD-ROM).

99. Yousef, N., L. Rabelo, and J. Sepulveda, "A Framework for Cost Modeling the Supply Chain Using ABC Costing," *IFIP 5.7 Advances in Production Management Systems Conference*, APMS 2005, Sept. 81-21, 2005, (CD-ROM).

100. Munoz, C. and L. Rabelo, "A Framework for IT Project Selection Using A Real Option Scorecard Approach: The Utility Computing Case," *Proceedings of the ASEM Conference 2005*, Virginia Beach, VA, 2005, pp. 38-41.

101. Rahal, A. and L. Rabelo, "Assessment Framework for the Evaluation and prioritization of University Inventions and innovations For Licensing and Commercialization," *Proceedings of the ASEM Conference 2005*, Virginia Beach, VA, 2005, pp. 42-45.

102. Ferreras, A., H. Eskandari, S. Furterer, L. Crumpton-Young, and L. Rabelo, "New Instructional Strategies for Undergraduate Industrial Engineering Programs," *Proceedings of the IIE Industrial Engineering Research Conference*, 2005, (CD-ROM).

103. Eskandari, H., S. Furterer, L. Crumpton-Young, and L. Rabelo, "Emerging Topics for Undergraduate Industrial Engineering Education Program," *Proceedings of the IIE Industrial Engineering Research Conference*, 2005, (CD-ROM).

104. Eskandari, H. and L. Rabelo, "An Interval-based AHP Approach for Handling Uncertainty," *Proceedings of the IIE Industrial Engineering Research Conference*, 2005, (CD-ROM).

105. Dawson, J., L. Rabelo, and J. Sepulveda, "Usability of Distribution Simulation Environments," *Proceedings of the IIE Industrial Engineering Research Conference,* 2005, (CD-ROM).

106. Gruber, F., L. Rabelo, S. Sala-Diakanda, L. Robledo, and J. Sepulveda, "Genetic Algorithms for Support Vector Machine Optimization," *Proceedings of the IIE Industrial Engineering Research Conference*, 2005, (CD-ROM).

107. Yousef, N., J. Sepulveda, and L. Rabelo, "Cost Modeling the Supply Chain," *Proceedings of the Industrial Engineering and Management Systems (IEMS) Conference*, 2005, (CD-ROM).

108. Eskandari, H. and L. Rabelo, "Tradeoff/Risk Method in Multi-objective Simulation Optimization," *Proceedings of the Industrial Engineering and Management Systems (IEMS) Conference*, 2005, (CD-ROM).

109. Rahal, A. and L. Rabelo, "Assessment Framework for the Evaluation and Prioritization of University Inventions and Innovations for Licensing and Commercialization," *Industrial Engineering and Management Systems (IEMS) Conference*, 2005, (CD-ROM).

110. Eskandari, H. and L. Rabelo, "GA-based Multiobjective Optimization Under Uncertainty," *Industrial Engineering and Management Systems (IEMS) Conference*, 2005, (CD-ROM).

111. Munoz, C. and L. Rabelo, "A Framework for Business Valuation and Strategy Selection of Utility Computing Projects: A Real Option Scorecard Approach," Proceedings of the *Americas Conference on Information Systems 2005*, 2005, (CD-ROM).

112. Rabelo, L., J. Park, and J. Sepulveda, "Range Safety Modeling in the Virtual Range," *Proceedings of the IASTED Conference, Cancun, Mexico*, 2005, (CD-ROM).

113. Rabelo, L., M. Helal, and J. Sepúlveda, "Pattern Recognition in Supply Chain Management," *Proceedings of the 11th World Congress of International Fuzzy Systems Association (IFSA 2005)*, Beijing China, July 28-31, 2005, pp. 1691-1696.

114. Rabelo, L., J. Park, M. Marin, J. Sepulveda, and J. Bardina, "Development of a Virtual Test Bed for Space Operations Using HLA, XML, and Software Agents," *Proceedings of the IASTED Conference, Cancun, Mexico*, 2005 (CD-ROM).

115. Gruber, F., L. Rabelo, S. Sala-Diakanda, L. Robledo, and J. Sepúlveda, "Evolutionary Support Vector Machines and the Columbia Reconstruction Database," *Proceedings of the 11th World Congress of International Fuzzy Systems Association (IFSA 2005),* Beijing China, July 28-31, 2005, pp. 1460-1465.

116. Rabelo, L., M. Helal, and C. Lertpattarapong, "Analysis of Supply Chains using System Dynamics, Neural Networks, and Eigenvalues," *Proceedings of the 2004 Winter Simulation Conference,* Washington, DC, December 5-8, 2004, pp. 1136-1144.

117. Rabelo, L., J. Sepulveda, M. Marin, A. Paruchuri, A. Wasadikar, and K. Nayaranan, "Parallel/Distributing Simulation in the Virtual Test Bed," *Proceedings of the 2004 Winter Simulation Conference,* Washington, DC, December 5-8, 2004, pp. 1452-1460.

118. Sepúlveda, J., L. Rabelo, J. Park, and F. Riddick, "Implementing the High Level Architecture in the Virtual Test Bed," *Proceedings of the 2004 Winter Simulation Conference,* Washington, DC, December 5-8, 2004, pp. 1444-1451.

119. Sepúlveda, J., L. Rabelo, J. Park, F. Gruber, and O. Martínez, "Factors Affecting the Expectation of Casualties in the Virtual Range Toxicity Model," *Proceedings of the 2004 Winter Simulation Conference,* Washington, DC, December 5-8, 2004, pp. 1716-1769.

120. Rabelo, L. and M. Helal, "Avoiding Unwanted Behavior in Supply Chains," *Proceedings of the PICMET 2004 Conference,* Seoul, South Korea, 2004, (CD-ROM).

121. Rabelo, L., J. Sepulveda, J. Bardina, C. Peaden, and J. Compton, "Virtual Test Bed for Operations, Range, and Re-Entry Environments," *Proceedings of the American Institute of Aeronautics and Astronautics (AIAA) Conference,* January 5, 2004, (CD-ROM).

122. Sepulveda, J., L. Rabelo, and J. Compton, "A Distributed Environment for Analysis of Events Related to Range Safety," *Proceedings of the World Aviation Congress 2004*, Reno, Nevada, 2004, (CD-ROM).

123. Rabelo, L. and J. Sepulveda, "A Distributed Environment for Spaceports," *Proceedings of the World Aviation Congress 2004*, Reno, Nevada, (CD-ROM).

124. Alvarado, K. and L. Rabelo, "A Roadmap for the Supply Chain Operations Reference Model (SCOR)," *Proceedings of the ASEM Conference 2004*, Washington DC, 2004, pp. 433 - 442.

125. Helal, M. and L. Rabelo, "An Enterprise Simulation Approach to the Development of a Dynamic Balance ScoreCard," *Proceedings of the ASEM Conference 2004,* Washington DC, 2004, pp. 311 - 320.

126. Sepulveda, J. and L. Rabelo, "Integration of Toxic Models with Geographical Information Systems for Risk Management," *Proceedings of the ASEM Conference 2004*, Washington DC, 2004, pp. 195 - 204.

127. Ahmad, A., M. Mansooreh, and L. Rabelo, "Ontologies for Supply Chain Management," *Proceedings of the IERC Annual Conference,* Houston, TX, May 15-19, 2004, (CD-ROM).

128. Rabelo, L. and M. Helal, "A Study of the Impact of Production Scheduling Using Enterprise Simulation," *Proceedings of the IERC Annual Conference,* Houston, TX, May 15-19, 2004, (CD-ROM).

129. Helal, M. and L. Rabelo, "Heuristics Scheduling," *Proceedings of the IERC Annual Conference,* Houston, TX, May 15-19, 2004, (CD-ROM).

130. Marin, M., L. Rabelo, J. Sepúlveda, J. Compton, and C. Peaden, "Spaceport Models Assessment," *Proceedings of the IERC Annual Conference,* Houston, TX, May 15-19, 2004, (CD-ROM).

131. Paruchuri, A., A. Wasadikar, M. Marin, L. Rabelo, J. Sepúlveda, J. Compton, "Parallel Discrete Event Simulation of Space Shuttle Operations," *Proceedings of the IERC Annual Conference*, Houston, TX, May 15-19, 2004, (CD-ROM).

132. Sepúlveda, J., L. Rabelo, J. Park, and J. Compton, "A Modeling and Simulation Environment for Space Ranges," *Proceedings of the IERC Annual Conference*, Houston, TX, May 15-19, 2004, (CD-ROM).

133. Rabelo, L., J. Sepúlveda, S. Sala-Diakanda, F. Gruber, D. Rachapalli, E. Hernández, J. Compton, "Issues with the Columbia Reconstruction Database," *IEMS Conference 2004*, Cocoa Beach, FL, March 15-17, 2004, (CD-ROM).

134. Eskandary, H, L. Rabelo, and M. Mollaghasemi, "Interval AHP with Inconsistent Comparison Matrices," *IEMS Conference 2004*, Cocoa Beach, Florida, March 15-17, 2004, (CD-ROM).

135. Yousef, N., Rahal, M., and L. Rabelo, "Study of the Inventory Oscillation Through the Supply Chain Using System Dynamics," *IEMS Conference 2004*, Cocoa Beach, Florida, March 15-17, 2004, (CD-ROM).

136. Sepúlveda, J., L. Rabelo, O. Martínez, "CUMBIA – The Center for Unified Modeling of Business and Industrial Artifacts," *IEMS Conference 2004*, Cocoa Beach, Florida, March 15-17, 2004, (CD-ROM).

137. Sepúlveda, J., L. Rabelo, A. Dalrymple, and J. Compton, "The Virtual Range Project's Toxicity Model," *IEMS Conference 2004*, Cocoa Beach, Florida, March 15-17, 2004, (CD-ROM).

138. Meade, P. and L. Rabelo, "Using Chaos and Complexity Theory to Predict the Technology Adoption Cycle," *Proceedings of the PICMET 2003 Conference: Portland International Conference on Management of Engineering and Technology (IEEE Cat. No.03CH37455),* Portland, Oregon, 2003, (CD-ROM).

139. Rabelo, L., A. Jones, and M. Helal, "A Hybrid Approach To Manufacturing Enterprise Simulation," *Proceedings of the 2003 Winter Simulation Conference,* New Orleans, Louisiana, December 7-10, 2003, pp. 1125-1133.

140. Rabelo, L., Simulation of the Modern Enterprise Using System Dynamics, *Proceedings of the PICMET 2003 Conference: Portland International Conference on Management of Engineering and Technology (IEEE Cat. No.03CH37455),* Portland, Oregon, 2003, (CD-ROM).

141. Shah, A., M. Carrasquillo, and L. Rabelo, "Service Industry Supply Chain Analysis," *Proceedings of the American Society of Engineering Management Conference*, 2003, pp. 426 - 432.

142. Meade, P. and L. Rabelo, "Chaos Theory and Engineering Management," Proceedings of the *American Society of Engineering Management Conference*, 2003, pp. 21 - 28.

143. Shah, A., M. Carrasquillo, and L. Rabelo, "Supply Chain Management for the Service Industry," *Industrial Engineering Research Conference Proceedings*, 2003 (CD-ROM).

144. Meade, P. and L. Rabelo, "Using Complexity Theory to Formulate New Product Development Strategies: A Framework," *Proceedings of the Industrial Engineering Research Conference,* 2003, (CD-ROM).

145. Yousef, N., L. Rabelo, and J. Vila, "Personalization Using Software Agents Based on Fuzzy ARTMAP Neural Networks," *Industrial Engineering Research Conference Proceedings,* 2003, (CD-ROM).

146. Rabelo, L., J. Bardina, and B. Brown, "Virtual Test Bed for Operational Models," *World Space Congress Proceedings*, 2003, (CD-ROM).

147. Rabelo, L. "Using System Dynamics to Sustain Growth in the Construction Industry," *Information Systems Conference*, June 2002, (CD-ROM).

148. Rabelo, L. and A. Shah, "Supply Chain Management: Detecting Structural Changes," *World Automation Congress Proceedings*, Orlando, 2002, (CD-ROM).

149. Rabelo, L. and A. Shah, "Electronic Commerce Software Agents: The Featured-based Filtering Approach," *World Automation Congress Proceedings*, Orlando, 2002, (CD-ROM).

150. Petterson, J. & L. Rabelo, "A study and Simulation of the Entry of the New Generation of Wireless Communication Technology (3G) on the North American Market," *Industrial Engineering Research Conference Proceedings*, 2002, (CD-ROM).

151. Rabelo, L. "Electronic Commerce Software Agents: How to Increase Their Machine IQ," *Industrial Engineering Research Conference Proceedings,* 2002, (CD-ROM).

152. Rabelo, L. and P. Meade, "Justification of Ongoing New Product/Process Development Using System Dynamics Modeling," *Industrial Engineering Research Conference Proceedings*, 2002, (CD-ROM).

153. Rabelo, L. and P. Meade, "Analysis of Sustaining Growth in a Corporation using System Dynamics Modeling," *IAMOT Conference Proceedings,* Miami, FL, 2002, (CD-ROM).

154. Rabelo, L. "Support Vector Machines for Electronic Commerce," *Industrial Engineering and Management Systems Conference Proceedings*, Cocoa Beach, FL, 2002, (CD-ROM).

155. Rabelo, L. "System Dynamics Simulation of New Product Development," *Industrial Engineering and Management Systems Conference Proceedings,* Cocoa Beach, FL, 2002, (CD-ROM).

156. Rabelo, L. "Recommender Software Agents: A Comparison," *Information Systems Conference Proceedings*, Cocoa Beach, FL, June 2001, (CD-ROM).

157. Keyvan, S. and L. Rabelo. "Application of ART2-A as a Pseudo-supervised Paradigm to Nuclear Reactor Diagnosis," Proceedings of the International Work-Conference on Artificial Neural Networks (IWANN). Vol. 1, 1999, pp. 747-755.

158. Shastri, V. and L. Rabelo, "Device-Independent Color Correction for Multimedia Applications Using Neural Networks and Abductive Modeling Approaches," Proceedings of the International Conference on Neural Networks, ICNN'96, Vol.4, June 3-6, 1996, pp. 2176-2181

159. Bush, B. and L. Rabelo, "Evolutionary Scheme for Adaptive Fuzzy Design in Mechatronics," *Proceedings of the NSF Mechatronics Workshop,* San Francisco, CA, June 13-15, 1996, pp. 85-95.

160. Bush, B., J. Kharoufeh, and L. Rabelo, "Development of an Evolutionary Scheme for Adaptive Fuzzy Design*," Proceedings of the Adaptive Distributive Parallel Computing Symposium,* Dayton, Ohio, August 8-9, 1996, pp. 53-58.

161. Rabelo, L., "Development of a Real-Time Learning Scheduler Using Adaptive Critics Concepts," *Proceedings of the OAI Neural Networks Symposium and Workshop*, 1995, pp. 363-370.

162. Howard, T., T. Lacksonen, and L. Rabelo, "Neural Networks in the Search for an Optimal Chemical Reactor Series," *Proceedings of the OAI Neural Networks Symposium and Workshop, 1995,* pp. 145-150.

163. Quiroga, L. and L. Rabelo, "Case Studies Using the Wang and Mendel Fuzzy Approximation Methodology," *4th Industrial Engineering Research Conference Proceedings*, 1995, pp. 859-865.

164. Hooks, K. and L. Rabelo, "Integrating Expert Systems and CIM Theory in the Creation of a Computer-Aided Inspection and Analysis System for Quality Control," *4th Industrial Engineering Research Conference Proceedings*, Temple, AZ, 1995, pp. 295-302.

165. Rabelo, L., Y. Yih, and A. Jones, "Knowledge-Based Reactive Scheduling Using the Integration of Neural Networks, Simulation, Genetic Algorithms, and Machine Learning ," *IFIP WG5.7 Working Conference*, Seattle, WA, 1995, pp. 444-455.

166. Rabelo, L., A. Jones, and Y. Yih, "Development of a Real-Time Learning Scheduler Using Reinforcement Learning Concepts," *Proceedings of the 9th IEEE International Symposium on Intelligent Control,* Columbus, Ohio, August 1994, pp. 291-296.

167. Rabelo, L. "Flexible Manufacturing Systems Scheduling Using Q-Learning," *Proceedings of the World Congress on Neural Networks, (Top 20%),* San Diego, CA, 1994, pp. 378-385.

168. Yih, Y., L. Rabelo, and A. Jones, "A Hybrid AI/Simulation Framework for FMS Scheduling," *Proceedings of the Conference: New Directions for Manufacturing and Communications*, Tokyo, Japan, August 1-2, 1994, pp. 204-210.

169. Gerth, R., G. Bakshi, and L. Rabelo, "Comparisons of Ridge Regression and Backpropagation Networks," *Proceedings of the Fourth Artificial Neural Networks in Engineering (ANNIE) Conference*, St. Louis, MO, November, 1994, pp. 1205-1211.

170. Mehta, B., P. Roy, and L. Rabelo, "Using Fuzzy ARTMAP for the Prediction of Protein Secondary Structure," *Proceedings of the Fourth Artificial Neural Networks in Engineering (ANNIE) Conference*, St. Louis, November, 1994, pp. 257-262.

171. Rabelo, L., A. Jones, and Y. Yih, "Development of a Real-Time Learning Scheduler for Dynamic Scheduling," *Proceedings of the International Symposium on Artificial Intelligence,* Monterrey, Mexico, October 1994, pp. 119-126.

172. Rabelo, L. and F. Kulak, "Applications of the Neocognitron to the Part-Design Retrieval Problem," *Proceedings of the International Symposium on Artificial Intelligence,* Monterrey, Mexico, 1994, pp. 87-93.

173. Kulak, F. and L. Rabelo, "Development of a Neocognitron Simulator for Group Technology," *Proceedings of the World Congress on Neural Networks*, San Diego, CA, 1994, pp. 535-540.

174. Parks, C., D. Koonce, L. Rabelo, R. Judd, and J. Sauter, "A Model-Based Manufacturing Integration: A Paradigm for Virtual Manufacturing System Engineering," *Computer and Industrial Engineering: An International Journal,* Pergamon Press, Vol. 27, 1994, pp. 357-360.

175. Rabelo, L. and Y. Yih, "Development of a Two-Level Scheduling Prototype Using Artificial Intelligence Techniques for a "Systems" Company," *Proceedings of the 1994 Flexible Automation and Integrated Manufacturing Conference,* Blacksburg, VA, 1994, pp. 232 – 242.

176. Rabelo, L., Y. Yih and A. Jones, "An Intelligent Scheduling System for Manufacturing," *Proceedings of the International Symposium on Artificial Intelligence*, Monterrey, Mexico, 1993, pp. 92-99.

177. Toure, S., L. Rabelo, and T. Velasco, "Artificial Neural Networks for Flexible Manufacturing Systems Scheduling," *Computers & Industrial Engineering: An International Journal,* Pergamon Press, Vol. 25, 1993, pp. 385-388.

178. Rabelo, L., Y. Yih, A. Jones, and J. Tsai, "Intelligent Scheduling for Flexible Manufacturing Systems," *1993 IEEE International Conference on Robotics and Automation, vol. III,* 1993, pp. 810-815.

179. Rabelo, L., Y. Yih, A. Jones, and G. Witzgall, "Intelligent FMS Scheduling Using Modular Neural Networks," *Proceedings of the 1993 International Conference on Neural Networks,* and Oral Presentation*, vol. III,* San Francisco, CA, 1993, pp. 1224-1229.

180. Hooks, K., Velasco, T., and L. Rabelo, "Enhancing CAI Through the Integration of Quality Control and CAD," *Computers & Industrial Engineering: An International Journal,* Pergamon Press, Vol. 25, 1993, pp. 511-514.

181. Rabelo, L., H. Ma, X. Avula, and J. Tsai, "Hierarchical and Distributed Control of a Robotic Manipulator with Multiple Degrees of Freedom Using Neural Networks," *Proceedings of the First World Congress on Neural Networks*, , Portland, Oregon, July 11-15, 1993, III281-III284.

182. Rabelo, L., Y. Yih, and A. Jones, "An Artificial Intelligence Framework for FMS Scheduling," *Proceedings of the 1993 Flexible Automation and Integrated Manufacturing Conference*, Limerick, Ireland, 1993, pp. 383-393.

183. Keyvan, S., A. Durg, and L. Rabelo, "Evaluation of the Performance of Various Artificial Neural Networks to the Signal Fault Diagnosis in Nuclear Reactor Systems," *Proceedings of the 1993 International Conference on Neural Networks*, San Francisco California, vol. III, 1993, pp. 1719-1723.

184. Yih, Y., L. Rabelo, A. Jones, and G. Witzgall, "Development of Intelligent Scheduling Aids Using Simulation and Neural Networks," *Proceedings of the 26th Annual Simulation Symposium, Simulation Multiconference*, Washington, DC, 1993, pp. 324-330.

185. Rabelo, L., A. Jones, and J. Tsai, " Using Hybrid Systems for FMS Scheduling," *Proceedings of the Industrial Engineering Research Conference (IERC)*, Los Angeles, California, 1993, pp. 471-475.

186. Jones, A. and L. Rabelo, "Integrating Neural Networks, Simulation and Genetic Algorithms for FMS Scheduling," *Proceedings of the Joint US/German Conference on New Directions for Operations Research in Manufacturing,* Germany, Springer-Verlag Lectures, 1992, pp. 181-192.

187. Keyvan, S., L. Rabelo, and A. Malkani, "Nuclear Diagnostic Monitoring by Adaptive Resonance Theory," *Proceedings of the International Joint Conference on Neural Networks, and Oral presentation (Top 20%),* Baltimore, MD., 1992, pp. 321 - 328.

188. Rabelo, L., X. Avula, H. Ma, A. Malkani, and J. Tsai, " Planning and Control of a Robotic Manipulator Using Neural Networks," *Proceedings of the First IEEE Conference on Control Publications*, Dayton, 1992, pp. I306 - I 311.

189. Jones, A. and L. Rabelo, "Real-Time Decision Making Using Neural Nets, Simulation, and Genetic Algorithms," *Proceedings of the Second International Conference FAIM 92 (Flexible Automation and Information Management),* Washington, D.C., 1992, pp. 746 – 757.

190. Gaber, T., L. Rabelo, and Y. Hosny, "An Integrated Artificial Neural Network Model for Industrial Projects Risk Assessment," *Proceedings of the IEEE Engineering Management Conference*, New York, New York, 1992, pp. 206-210.

191. Rabelo, L., G. Bakshi, and A. Malkani, "Design and Analysis of Flexible Manufacturing Systems using AI and Simulation," *Proceedings of the Second International Conference FAIM 92 (Flexible Automation and Information Management),* Washington, D.C., 1992, pp. 758 – 769.

192. Keyvan, S., L. Rabelo and A. Malkani, "Nuclear Reactor Condition Monitoring System Using Adaptive Resonance Theory," *Proceedings of the Fifth Conference on Neural Networks and Parallel Distributed Processing*, Indiana University-Purdue University, 1992, pp. 72-81.

193. Hooks, K., A. Malkani and L. Rabelo, "Application of Artificial Neural Networks in Quality Control Charts," *Proceedings of the Fifth Conference on Neural Networks and Parallel Distributed Processing*, Indiana University-Purdue University, 1992, pp. 60-71.

194. Rabelo, L. and J. Vila, "A Hybrid AI Approach to Flexible Manufacturing Systems Scheduling: Procedural and Object-Oriented Comparisons," *Proceedings of the International Conference on Object Oriented Manufacturing Systems*, Calgary, Canada, 1992, pp. 340 – 345.

195. Rabelo, L and S. Alptekin, "A Hybrid Approach to FMS Scheduling Using Neural and Symbolic Processing,*" Proceedings of the Joint US/German Conference on New Directions for Operations Research in Manufacturing,* Springer-Verlag Lectures, 1991, pp. 309 – 330.

196. Rabelo, L and D. Alasya, "Artificial Neural Networks for Process Planning," *Proceedings of the Joint US/German Conference on New Directions for Operations Research in Manufacturing*, Springer-Verlag Lectures, 1991, pp. 331 - 345.

197. Rabelo, L and X. Avula, "Intelligent Control of a Robotic Arm Using Hierarchical Neural Network Systems," *Proceedings of the International Joint Conference on Neural Networks*, Seattle, 1991, pp. II747-II751.

198. Rabelo, L. and X. Avula, "Hierarchical Neurocontroller Architecture for Intelligent Robotic Manipulation," *Proceedings of the IEEE Conference on Robotics and Automation,* Sacramento, CA, 1991, pp. 2656 - 2661.

199. Rabelo, L and S. Alptekin, "Using Artificial Neural Networks for Flexible Manufacturing System Scheduling," *Proceedings of the Fifth International Conference on CAD-CAM*, Robotics and Factories of the Future, Norfolk, Virginia, 1990, pp. 615-620.

200. Rabelo, L., H. Wu, and S. Alptekin, "Neural Networks as Decision Tools for CIM," *Proceedings of the American Society for Engineering Management Conference*, St. Louis, Missouri, 1990, pp. 217-222.

201. Vila, J., L. Rabelo, and A. Deshmane, "Applying ANNs of the Jordan Type to Job Sequencing Under Varying Environmental Inputs," *Proceedings of the IASTED,* Switzerland, June 25-27, 1990, pp. 308-312.

202. Alasya, D. and L. Rabelo, "An Intelligent System for Economic Development,"*Proceedings of the IASTED International Conference on Artificial Intelligence Applications and Neural Networks*, Zurich, Switzerland, June 25-27, 1990, pp. 255-257.

203. Rabelo, L., S. Alptekin and A. Kiran, "Synergy of ANNs and KBESs for Intelligent FMS Scheduling," *Proceedings of the International Joint Conference on Neural Networks, San Diego, 1990, pp. I359-I366.*

204. Rabelo, L. and S. Alptekin, "Adaptive Scheduling and Control Using ANNs and Expert Systems for a Hierarchical-Distributed FMS Architecture, "*Proceedings of the International Conference on CIM, Troy, New York, IEEE Computer Society Press, 1990, pp. 538-545.*

205. Rabelo, L., D. Kim, and T. Erdogan, "Integrating Digital and ANNs using Neurocontrollers," *Proceedings of the International Joint Conference on Neural Networks*, Washington D.C., 1990, pp. II191-II194.

206. Alptekin, S. and L. Rabelo, "Integration of AI Technologies for FMS Scheduling," *Working Papers on AI in MS/OR*, 1989, pp. 1-9.

207. Rabelo, L. and S. Alptekin, "Simulation in Design of Multiprocessor Systems for CIM," *Proceedings of the Summer Computer Simulation Conference*, 1989, pp. 370-375.

208. Rabelo, L. and S. Alptekin, "Synergy of Neural Networks and Expert Systems for FMS Scheduling," *Proceedings of the Third ORSA/TIMS Conference on Flexible Manufacturing Systems: Operations Research Models and Applications*, 1989, pp. 361-366.

209. Rabelo, L and S. Alptekin, "Integrating Scheduling and Control Functions in Computer Integrated Manufacturing using Artificial Intelligence," *Computer and Industrial Engineering : An International Journal, Pergamon Press*, Orlando, Florida,1989, vol. 17, pp. 101-106.

RESEARCH /TECHNICAL REPORTS

1. **MRM (Multi-Resolution Modeling) Report 2014, Report written by Luis Rabelo and others (G. Lee, T. Park, K. Kim, J. Pastrana, and M Marin) for Korea ADD (Agency for Defense Development), August 2014 (under contract by Korea ADD).**

2. **Final Report of IEEE Standards Project: Development of 3-D virtual electric safety training by applying National Electric Safety Code (NESC) 2016**, Report written by Luis Rabelo and others (Sayli Bhide and Bibi Ibrahim) for IEEE (http://www.standardsuniversity.org/wp-content/uploads/Development-of-3-D-virtual-electric-safety-training-by-applying-National-Electric.pdf), 2016 (Grant from IEEE Standards Division).

3. **Final Report of ADDSim Project 2015**, Report written by Luis Rabelo and others (G. Lee, T. Park, K. Kim, J. Pastrana, and M Marin) for Korea ADD (Agency for Defense Development), June 2015 (under contract by Korea ADD).

4. **MRM (Multi-Resolution Modeling) Report 2014**, Report written by Luis Rabelo and others (G. Lee, T. Park, K. Kim, J. Pastrana, and M Marin) for Korea ADD (Agency for Defense Development), August 2014 (under contract by Korea ADD).

5. **Critical Design Review Report of ADDSim Project 2014**, Report written by Luis Rabelo and others (G. Lee, T. Park, K. Kim, J. Pastrana, and M Marin) for Korea ADD (Agency for Defense Development), April 2014 (under contract by Korea ADD).

6. **Annual Report of EPSCoR Project Management 2011**, Report written by Luis Rabelo for NASA, May 2011 (under contract by NASA).

7. **Annual Report of EPSCoR Project Management 2010**, Report written by Luis Rabelo for NASA, May 2010 (under contract by NASA).

8. **Development of a Prototype of a Distribution System for UUVs for Lockheed Martin**, Report written by Luis Rabelo for Lockheed Martin UUV Study Project, July 2007 (under contract by Lockheed Martin).

9. **Study of the Different Run-Time Infrastructures (RTIs) for Lockheed Martin,** Report written by Luis Rabelo for Lockheed Martin UUV Study Project, May 2007 (under contract by Lockheed Martin).

10. **Study of the Different Run-Time Infrastructures (RTIs) for NASA Kennedy Space Center (KSC) Distributed Operations,** Report written by Luis Rabelo for NASA RTI SGOS Study Project, May 2006 (under contract by NASA).

11. **Power Systems Simulation Testbed,** Report written by Luis Rabelo, NASA Fellow 2005, 2006 RESEARCH REPORTS, NASA John F. Kennedy Space Center.

12. **Usability Study of Virtual Engineering Environments,** Report written by Jeff Dawson and Luis Rabelo for NASA Usability Study Project, November 2004.

13. **Probability Comparison,** Report written by Jose Sepulveda, Jeppie Compton, and Luis Rabelo. This report is being used by NASA Kennedy Space Center in Safety (October 2003).

14. **Integration of Models,** Report written by Luis Rabelo. This report is being used by NASA Kennedy Space Center to understand the integration of Models using HLA and XML and other trends in Systems Integration. (October 2003). Available in TechDoc at NASA (40 Pages)

15. **Model Assessment,** Report written by Luis Rabelo, Mario Marin, and Jeppie Compton. This report is being used by NASA Kennedy Space Center and includes a survey of the different simulation systems being used at NASA KSC. Available in TechDoc at NASA (80 Pages).

16. **XML Report,** Report written about the possibilities of XML and Ontologies for the integration of Model at NASA KSC. Available in TechDoc at NASA (50 Pages).

17. **The Virtual Test Bed Project,** Report written by Luis Rabelo, NASA Fellow 2003, 2003 RESEARCH REPORTS, John F. Kennedy Space Center.

18. **The Virtual Test Bed Project**, Report written by Luis Rabelo, NASA Fellow 2002, 2002 RESEARCH REPORTS, John F. Kennedy Space Center.

19. **The Virtual Test Bed Project at KSC**, Report written by Mario Marin and Luis Rabelo, NASA KSC Research and Technology Report 2004.

20. **Power System Simulation Test Bed**, Report written by Luis Rabelo and Jeppie Compton, NASA KSC Research and Technology Report 2005.

21. **NSF Report - Reengineering the Undergraduate IEMS Program (Planning Grant)**, Report written to the National Science Foundation with Dr. Lesia Crumpton-Young (PI), Kent Williams, and Ed Hampton, 2004.

22. **Simulation and Logistics of the AAS (Alternate Access to Station)**, Report written with Dr. Sepulveda and Mr. Jeppie Compton for Boeing Phantom Works, 2003 (ITAR Restricted Project).

23. **Multimedia-Based Teaching/Learning Modules for Production Scheduling using Artificial Intelligence Techniques**, Report written by Dr. Luis Rabelo for NSF Award No. 9409421, 1996.

24. **Integration of Neural Networks, Simulation, and Genetic Algorithms for Flexible Manufacturing System Scheduling**, Report written by Dr. Luis Rabelo for NIST Award No. 70NANB3H1418, 1994.

25. **Reengineering the Undergraduate IEMS Curriculum (Departmental Reform Grant)**, Report written to the National Science Foundation, Dr. Luis Rabelo (PI), 2008.

- **Plenary/Keynote Speaker, Invited Presentations and Presentations in Conferences without Proceedings (Sample)**
  - *Over 200 presentations in USA, Canada, Mexico, Guatemala, Costa Rica, Panama, Colombia, Peru, Bolivia, Chile, Brazil, Puerto Rico, South Korea, Iceland, Germany, Denmark, France, Italy, Switzerland, Spain, England, Ireland.*

1. **Speaker, Seminar in Supply Chain Management, Pontificia Universidad San Pablo – Santa Cruz, 23-24 March 2018, Santa Cruz, Bolivia.**
2. **Keynote Speaker, International Industrial Engineering Conference V (Universidad el Bosque), 3 March 2018, Bogota, Colombia.**
3. **Keynote Speaker, Conference "Tecnologia 4.0" (Universidad Latina, Panama), 23 November 2017, Panama City, Panama.**
4. **Keynote Speaker, "Predictive Analytics", Universidad de la Sabana, 9 November 2017, Bogota, Colombia.**
5. **Keynote Speaker, Congress of Investigators from Inter-Universities (Panama), Universidad Americana (UAM), 25 October 2017, Panama City, Panama.**
6. **Speaker, Seminar in Simulation, 5 October 2017, Universidad de Sonora, Caborca, Sonora, Mexico.**
7. **Keynote Speaker, Conference in Industrial Engineering at the University of the State of Sonora (Sonora, Mexico), 4 October 2017, Caborca, Sonora, Mexico.**
8. **Speaker, SAE Aerotech Conference, 27 September 2017, Fort Worth, Texas.**
9. **Keynote Speaker, Fulbright Colombia and Universidad Pontificia Javeriana – Cali, Conference "Metodologias Avanzadas para la Toma de Decisiones," Title of Presentation "Tendencias en la Ingenieria Industrial", 18 August 2017, Cali, Colombia.**
10. **Speaker, Universidad San Carlos – Hospital San Juan de Dios (Emergencias Pediatricas) – "Medical Simulation, Cost Analysis, and Return on Investment", 4 August 2017, Guatemala City, Guatemala.**
11. **Panel Speaker, Innovation Ecosystems in Engineering Education: From Local Experiences to a Vision of the Future, IISE Conference, Pittsburgh, Pennsylvania, May 2017.**
12. **Plenary Speaker**, Jornada de Actualizacion, Universidad de Boyaca," Tunja, Boyaca, Colombia, May 2017.
13. **Plenary Speaker**, "Tendencias y su Impacto en Ingenieria Industrial," Universidad Católica Boliviana San Pablo, Santa Cruz, Bolivia, March 2017.
14. **Presentation.** "Marco para Medir el Retorno de la Inversión para Hacer Entrenamiento en Medicina con Simulación", Primer Encuentro de Simulación SIMex 2017, Mexico City, Mexico, March 14-16, 2017
15. INFORMS 2016 Annual Conference in TN, USA, November 13-16, 2016. "A Study on the Operations Analysis Using Big Data Developed by Simulations" co-authored by Hongseon Park, Yong Bok Lee, Gakgyu Kim, Gene Lee and Rabelo Luis.
16. **Plenary Speaker**, "Investigaciones en Simulación Virtual, y la Caracterización de la Computación de Alto Desempeño con Aprendizaje Profundo", November 2016, Universidad Tadeo Lozano, Santa Marta, Colombia (**INVITED**).
17. "Investigaciones en Simulación Virtual, y la Caracterización de la Computación de Alto Desempeño con Aprendizaje Profundo", November 2016, Universidad Tadeo Lozano, Bogota, Colombia, (**INVITED**).
18. **Plenary Speaker**, "Liderazgo en Ingenieria y sus Retos", Latin American Conference in Industrial Engineering and New Trends, Porto Alegre, Brazil, October 2016.
19. **Plenary Speaker**, "Tendencias y su Impacto en Ingenieria Industrial: Big Data, Business Analytics, Economy Sharing, Social Media, Supply Chain Analytics, Internet of Things", Latin American Conference in Industrial Engineering and New Trends, Porto Alegre, Brazil, October 2016.
20. **Supply Chain Management,** Society of Engineers and Architects of Bolivia, Santa Cruz, Bolivia, Junio 2016 **(INVITED).**
21. **Liderazgo usando Virtual Reality,** Universidad San Pablo, Santa Cruz, Bolivia, Junio 2016 **(INVITED).**
22. "Fuzzy Expert Model for Emergency Department Overcrowding Assessment," ISERC 2016 conference, Anaheim, California, May 2016.
23. **"New Technologies in Teaching Engineering**," Universidad del Pacifico, Lima, Peru, Junio 2017, **INVITED**.
24. "Decision-Making Frameworks Using System Dynamics: Examples in Value Chain Management and Operational Innovation", **Plenary Speaker** at the XIII Conference of Latin American System Dynamics Conference, Cartagena, Colombia, October 2015**.**
25. "Software Agents", **Plenary Speaker** at the ELAN, Bogota, Colombia, October 2015**.**
26. "Leadership and Innovation in Logistics and Engineering Management," November 2014, Universidad de la Sabana, Bogota, Colombia, **INVITED.**
27. **Plenary Speaker**, "Leadership and Innovation in Logistics and Engineering Management," October 2015, Universidad Tadeo Lozano, Bogota, Colombia, **INVITED.**

28. "Latest Trends in Engineering Management," April 2016, Universidad de la Sabana, Bogota, Colombia, **INVITED.**

29. "Simulation in Industrial Engineering," September 2015, Universidad de Costa Rica.

30. "Research in NASA," September 2015, Universidad de Costa Rica, **INVITED.**

31. "Artificial Intelligence and Deep Learning," September 2015, Universidad de Costa Rica, **INVITED.**

32. "Engineering Management, Innovation, Leadership," 24 April 2015, Universidad de la Sabana, Bogota, Colombia, **INVITED.**

33. "LVC Simulation," 27 April 2015, Escuela Naval Almirante Padilla, Cartagena, Colombia, **INVITED**.

34. "El Liderazgo en Ingenieria," 16 October 2014, Universidad Luis Amigo, Manizales, Colombia, **INVITED.**

35. "Mis Experiencias en la NASA," 14 October 2014, Universidad Luis Amigo, Medellin, Colombia, **INVITED.**

36. Albar, Abdulrahman, Elshennawy, Ahmed, Rabelo, Luis "Quantifying and Managing Emergency Department Overcrowding," UCF Annual, 2015. Graduate Student Forum, Orlando, FL, March 31, 2015.

37. "Engineering Management", Luis Rabelo during Engineering Week at Universidad de la Sabana, Bogota, Colombia, 2015, **INVITED.**

38. "Herramientas para la administración de technologia e innovación a nivel Corporativo/Empresarial," Universidad del Valle de Guatemala y la Direccion de Egresados de la Decanatura de Asuntos Estudiantiles, Guatemala City, Guatemala, October 11, 2013, **INVITED.**

39. "Research in NASA," July 2013, Universidad del Valle de Guatemala, Guatemala City, Guatemala, **INVITED.**

40. "Hybrid Real Options for Emerging Technologies, Green Energy, and Innovation," *2013 Industrial and Systems Engineering Research Conference, San Juan, Puerto Rico*, 2013 (18 May 2013).

41. "Effective Leadership using System Dynamics and the Matrix of Change," *2013 Industrial and Systems Engineering Research Conference, San Juan, Puerto Rico,* 2013 (20 May 2013).

42. "Hierarchical Distributed Simulation Modeling of Space Missions," *2013 Industrial and Systems Engineering Research Conference, San Juan, Puerto Rico,* 2013, (20 May 2013).

43. "International Technology Investments Using Real Options: A Case Study in Telecommunications," IEMS Conference 2013, Cocoa Beach, FL, March 25, 2013.

44. "Impact of the Leadership Transition on Innovations," IEMS Conference 2013, Cocoa Beach, FL, March 24, 2013, (CD-ROM).

45. Rabelo L. "Engineering Management and Trends," Bogota, Colombia, Universidad de La Sabana, 17 April 2013, **INVITED.**

46. Rabelo L. "Experiencias de Simulacion en la NASA," Santiago, Chile, Universidad del Desarrollo, November 2012. http://ingenieria.udd.cl/noticias/2012/11/seminario-%E2%80%9Cexperiencias-de-simulacion-en-la-nasa%E2%80%9D/, **INVITED.**

47. **Plenary Speaker**, Rabelo L. "Simulation en NASA," CONGRESO CIENTÍFICO LATINA 2012, Panama City, Republic of Panama, Universidad La Latina, 20 November 2012, **INVITED**.

48. Rabelo L. "Simulacion y la Cadena de Suministro" Seminario de la Cadena de Suministros, Panama City, Republic of Panama, Universidad Maritima Internacional de Panama, 21-23 November 2012**, INVITED**.

49. Rabelo L. "Simulation in NASA" Primer Congreso de Tecnologia e Informacion, Tuxtla Gutierrez, Chiapas, UNAC, November 2012, **INVITED**.

50. Rabelo L. and J. Compton, "Systems Engineering: Experimental Program to Stimulate Competitive Research," NASA Project Management Challenge 2012, February 22-23, 2012, Caribe Royale Hotel and Convention Center in Orlando, Florida, Level: National.

51. Elattar A., and L. Rabelo, "A Framework for Transitional Management," Session: Engineering Management Tuesday PM, Applied Solutions Sessions, IIE Annual Conference & Expo, Orlando, FL, May 19-22, 2012.

52. NASA EPSCoR Update, Luis Rabelo, presented to the NASA EPSCoR Caucus, Washington DC, March 2011.

53. Simulation Agents in Retailing, Luis Rabelo, Presented to Diego Portales University and Ripley Corporation, Santiago, Chile, November 24, 2010, **INVITED**.

54. NASA EPSCoR Update, Luis Rabelo, presented to the NASA EPSCoR Caucus, Portland, Maine, October 2010.

55. NASA EPSCoR, Luis Rabelo, Presented to HBCUs - White House Initiative, Huntsville, Alabama, April 2010.

56. NASA EPSCoR Update, Luis Rabelo, presented to the NASA EPSCoR Caucus, Washington DC, March 2010.

57. Supply Chain Management, Luis Rabelo, Presented to Diego Portales University and Ripley Corporation, Santiago, Chile, November 24, 2009, **INVITED**.

58. Presentation about the NASA EPSCoR Project, National Space Grant Directors Fall Meeting, Portland, Oregon, October 2009.

59. Stabilization of the Supply Chain by Using a Policy Optimization Approach Presenting Author: Alfonso Sarmiento,University of Central Florida, 4000 Central Florida Blvd., Orlando FL 32816, United States of America, sarmient@mail.ucf.edu Co-Author: Luis Rabelo, Informs Conference Fall 2009, San Diego, 2009.

60. Luis Rabelo, **Keynote Speaker** in Congreso Internacional de Tecnologias Informaticas para la Educacion en Salud, Tuxtla Gutierrez, Chiapas, Mexico, March 31 – April 03, 2009.

61. Presentations to students and Faculty of the UNACH (Universidad Autonoma de Chiapas) and La Universidad Politecnica de Chiapas (March 31st, and April 3rd, respectively). Tuxtla Gutierrez, Chiapas, Mexico, **INVITED**.

62. Presentations: "Multi-Agent System for Complex Systems" and "Simulation for Health Care Systems", Industrial Engineering Research Conference, Miami, Florida, 2009,

63. Luis Rabelo, presentation in the National Science Foundation, Selected by EEC, May 2008, **INVITED**.

64. Luis Rabelo, presentation in "My Experiences as a NASA Fellow," **Plenary Speaker**, IIE National Meeting, Celaya, Guanajuato, Mexico, 2008, **INVITED.**

65. Luis Rabelo, presentation in "Supply Chain Management," IIE National Meeting, Queretaro, Mexico, 2008.

66. Luis Rabelo, presentations in "Systems of Systems", and "A Methodology for Detecting and Minimizing Disturbances in the Supply Chain," INFORMS International, Puerto Rico, 2007.

67. Serge N. Sala-Diakanda, Yanshen Zhu, Haluk Hakin, Luis C. Rabelo, Jose Sepulveda, "Using GIS to Enhance the Visualization of an Object-Oriented Simulation of Ship Behavior in a Combat Environment," Industrial Engineering Research Conference, 2007 (Nashville, TN).

68. Faculty Colloquium given at the Industrial Engineering Research Conference (International Level), Orlando, Florida, May 2006 about Tenure Experiences.

69. Keynote Speaker, Presentation "My Experience in NASA as a NASA Fellow," XIX Congreso Nacional y V Congreso Internacional de Informática y Computación de la ANIEI, (CNCIIC-ANIEI 2006), Chiapas, 2006. **INVITED**.

70. Presentation "Exploration Program and Simulation," Centro Regional Autonomo de la Universidad Tecnologica de Panama, November 2006.

71. Presentation "Simulacion por Computadoras para la Equidad, Igualdad y Sustanibilidad,," Congreso de Ingenieria de Azuero 2006, La Villa de los Santos. Keynote Speaker.

72. Presentation "A Methodology for Suply Chains using System Dynamics and Genetic Algorithms," Industrial Engineering Research Conference, Orlando, Florida, 2006.

73. Presentation "Desarrollo de un Modelo de Simulacion para Toma de Decisiones Utilizando Dinamica de Sistemas," Technological University of Panama, First Congress in Engineering and Technology "Perspectivas Innovadoras Para el Desarrollo del Pais", October 3 – 5, 2005, **Plenary Speaker**, **INVITED**.

74. **Keynote Speaker** , "Advanced Simulation Environments for Decision-Making", TECNOCOM (Regional Conference of South America), Medellin, Colombia, August 2005, **INVITED**..

75. Seminar "Operations Research", Tools for Your Future, **Plenary Speaker**, Society of Women Engineers – Space Coast, May 2005, **INVITED**.

76. **Panel** "Systems Engineering", Tools for Your Future, Society of Women Engineers – Space Coast, May 2005.

77. Seminars at NASA about the Virtual Test Bed and its recent developments, Kennedy Space Center, June – August 2005.

78. Seminar in "Advanced Decision-Making", IceConsult Inc., Reykjavik, Iceland, May 2005, **INVITED**.

79. **Keynote Speaker** and Conference-Presentation in "Inteligencia Artificial", Universidad de Lima, Lima, Peru, October 2004, **INVITED**.

80. **Keynote Speaker** and Seminar in "Gestion de Proyectos", Universidad de Lima, Lima, Peru, October 2004, **INVITED**.

81. **Keynote Speaker** and Conference-Presentation in "Gestion de Proyectos", Universidad de Lima, Lima, Peru, October 2004, **INVITED.**

82. **Keynote Speaker** for the Information Technologies Congress in Chihuahua City, Chihuahua, Mexico, February 2004, **INVITED**.

83. **Keynote Speaker** for Electronics Commerce, Congress in Power Integration for Latin America, Panama, Republic of Panama, March 2004, **INVITED**.

84. **Keynote speaker** with CIAPEM, the committee of Information Technologies of the Mexican States and the Central Government, Culiacan, Sinaloa, September 2003**, INVITED**.

85. Rabelo, L. **Virtual Test Beds,** World Space Congress, Titusville, Florida, May 2003.Rabelo, L.

87. **Virtual Test Bed for NASA Shuttle Re-Entry Seminar**, Boeing Phantom Works, Huntsville, Alabama, March 2003. **INVITED.**

88. Rabelo, L. **A Virtual Range,** INCOSE Regional Conference, Huntsville, Alabama, November 2002.

89. Rabelo, L. **Integration of Simulation Models at NASA**, Seminar presented at the National Institute of Standards and Technology, Washington DC, March 2003, **INVITED**.

90. Bardina, J., Rabelo, L. **Intelligent Launch and Range Operations (ILRO),** NASA Johnson Space Center, Houston, Texas, October 2002.

91. Rabelo, L., **Virtual Test Bed: Seminar** NASA Wallops Flight Facility, January 2003, **INVITED**.

92. Rabelo, L. **A study and Simulation of the Entry of the New Generation of Wireless Communication Technology (3G) on the North American Market,** INFORMS Telecommunications Conference, Boca Raton, Florida, March 2002.

94. Rabelo, L. **Neural Networks and eCommerce (Keynote)** University of Aguas Calientes Aguas Calientes, Mexico, March 2001, **INVITED.**

95. **Keynote speaker** with CIAPEM, the committee of Information Technologies of the Mexican States and the Central Government, Aguas Calientes, Aguas Calientes, Mexico, September 2000, **INVITED.**

96. Rabelo, L. **A Hybrid Scheduler Using Neural Nets & Genetic Algorithms (Invited)** INFORMS Washington DC May 1996 Conference.

97. Rabelo, L. **Computational Intelligence (Invited)** Electrical Engineering Week, Technological University of Panama, Panama, June 1996.

98. Thomas, G., Rabelo, L, and Hjartarson, G., **Self-Organizing Genetic Algorithms (Invited)** INFORMS New Orleans Fall 1995 Conference.

99. Rabelo, L. **Adaptive Scheduling Using the Integration of OR and AI (INVITED)** Seminar Given to Manugistics, Inc., Rockville, Maryland, November, 1995.

100. **Hybrid Scheduling (INVITED)** Seminar Given to AutoSimulations, Inc, Bountiful, Utah, December 1995.

101. Rabelo, L. **A Hybrid Intelligence View of Scheduling (INVITED)** INFORMS New Orleans Fall 1995 Conference.

102. Rabelo, L. **Neural Networks in Control (INVITED)** Cal Poly, NSF sponsored workshop, June 1995.

103. Rabelo, L. **Integrating OR and AI for Production Sequencing and Scheduling** 1995 NSF Design and Manufacturing Grantees Conference, San Diego, California, January 1995.

104. Rabelo, L. **Neural Networks and Genetic Algorithms**, 2-day Workshop given to ICE Consultants, Inc., Reykjavik, Iceland, December 1994**, INVITED**.

105. Mehta, B., Rabelo, L. **Using Fuzzy ARTMAP for Prediction of the Secondary Structure of Proteins** Workshop **(Invited)** IEEE EMBC, Baltimore, MD, November 2, 1994.

106. Rabelo, L., Sahinoglu, M. **Using Neural Networks and Dynamic Programming for real-time Learning** ORSA/TIMS Joint National Meeting, Detroit, October 1994.

107. Jones, A., Rabelo, L., Yih, Y. **Artificial Intelligence Approach to Real-Time Sequencing Problems (Invited)** ORSA/TIMS Joint National Meeting, Detroit, October 1994.

108. Rabelo, L., Vila, J. **Artificial Neural Networks**, 3-Day Workshop, supported by InfoTech and TRP, Springfield, Illinois, September 26-28, 1994.

109. Rabelo, L., **Soft Computing and Neural Networks (Invited),** ITESM, Tampico, Tamaulipas, Mexico, 1995**.**

110. **Soft Computing (INVITED)**, ITESM, Leon, Guanajuato, Mexico, September 1995.

111. **Neural Networks (INVITED),** University of Baja California, Mexicali, Mexico, November 1994**.**

112. **Computers and Neurons (INVITED),** ITESM, Torreon, Mexico, October 1994**.**

113. **Artificial Neural Networks (INVITED),** ITESM Toluca, Mexico, September 1994**.**

114. **Principles of Artificial Intelligence (INVITED), ITESM,** Tuxtla Gutierrez, Mexico, October 1994.

115. **Genetic Algorithms (INVITED),** University of Baja California, Mexicali, Mexico, February 1996**;**

116. Jones, A., Rabelo, L., Yih, Y. **Intelligent Scheduling Systems** Fifth Annual Meeting of the Production and Operations Management Society (POMS), Washington D.C., October 8-11, 1994.

117. Rabelo, L. **Multimedia in Engineering Education** Panel "Multimedia" **(INVITED)**, Midwestern Computer Conference, Illinois State University, Normal, Illinois, 1994.

118. Rabelo, L., Avula, X., Ma, H. **Neuro-Control of a Robotic Manipulator with Multiple Degrees of Freedom (INVITED)** IMACS World Congress, Atlanta, Georgia, July 1994.

119. Yih, Y., Rabelo, L., Jones, A. **An Artificial Intelligence Framework for Intelligent Scheduling Systems** Workshop at the AAAI'94 Conference, Seattle, Washington, August 1994.

120. Keynote Speaker, Rabelo, L. **Neural Network: an Introduction for Engineers (INVITED)** XIX Simposium Internacional de Sistemas Computacionales, Monterrey, Mexico, February 24-26, 1994.

121. Rabelo, L., Jones, A., Yih, Y. **Candidate Rule Selection for FMS Scheduling (Invited)** TIMS/ORSA Joint National Meeting, Chicago, May 16-19, 1993.

122. Rabelo, L. **OU- CIM Experience (INVITED)** National Science Foundation, CIM Summer Workshops for Undergraduate Engineering Faculty, University of Missouri, Rolla, Missouri, 1993.

123. Rabelo, L. **Hybrid Artificial Intelligence (Invited)** Compuexpo 92, Panama City, Panama, 1992 (**INVITED**).

124. Rabelo, L. **Integration of Artificial Neural Networks and Knowledge-Based Systems: A Case Study (INVITED)**, Neural Information Processing Systems, Post Meeting Workshop, November 29 - December 1, 1990, Keystone, Colorado. **This is the top Neural Networks Conference and Workshop in the world.**

125. Alptekin, S., Rabelo, L. **Modeling Artificial Neural Networks for Adaptive FMS Scheduling (Invited)** TIMS/ORSA Joint National Meeting, Las Vegas, May 7-9, 1990.

126. Rabelo, L., Alptekin, S. **Increasing the Degree of Automation in CNC Systems Using AI and the integration of CAD/CAM** Manufacturing International 1990, (ASME, IEEE, IIE) Atlanta, March 25-28, 1990.

127. Rabelo, L., Alptekin, S. **Simulation in Design of Parallel Processing Systems for Manufacturing** Xth International Conference on Production Research, Nottingham, England, August 14-17, 1989.

128. Rabelo, L., Alptekin, S. **Using Hybrid Neural Networks/Expert Systems for Intelligent Scheduling in Flexible Manufacturing Systems** International Joint Conference on Neural Networks (IJCNN), sponsored by the IEEE and the International Neural Network Society, (IEEE, INNS), Washington D. C., June 18-22, 1989

- **Patents and Inventions**

For the first time, two of his patents have allowed neural networks to meet the requirements of civil aviation regulations and allows neural networks to fly in civilian aircrafts. (US 6,577,960 and US 6,157,894)

1. **Liquid gauging apparatus using a time delay neural - .US 6,577,960 (Year 2003) (First Inventor)**
   Liquid gauging apparatus using a time delay neural network for determining a quantity of liquid in a container that is not directly measurable by sensors is disclosed. The apparatus comprises a plurality of sensors and a processor. Each of the sensors are capable of measuring a respective parameter of the liquid and for producing a time varying sensor output signal representative of the respective parameter measured thereby. The processor is programmed to process the sensor output signals by a time delay neural network algorithm to determine a current quantity of the liquid in the container based on current and past parameter measurements of the sensor output signals. https://www.google.com/patents/US6577960.

2. **Liquid Gauging Using Sensor Fusion and Data Fusion for Aircrafts - .US 6,157,894 (Year 2000)**
   Sensor Fusion, Data Fusion, and Information Fusion using the integration of Neural Networks, Fuzzy Logic, Extended Kalman Filtering schemes, and Bayesian Approaches. The system does not need a model(s) initially to work. Estimation is superior to any other known methodology used in Aerospace industry for the particular problem addressed. This is an algorithm/methodology embedded in a blackboard-architecture of a product already being used in airplanes/aircrafts.
   https://www.google.com/patents/US6157894

One of the first patents in Genetic Algorithms (US 6,006,604) and to be utilized by Industry.

3. **Probe Placement Using Genetic Algorithm Analysis for Aircrafts - US 6,006,604. (Year 1999). (First Inventor)**
   This patent introduced a new type of genetic algorithm/optimization analysis for sensor and data fusion. The methodologies optimizes configuration of sensors and models for aerospace systems. The methodology can be used to identify ways to fuse signals from numerous/different sensors/models, where to locate the sensors, what type of sensors, what signal conditioning/processing models should be made, and how many sensors.

4. **Provisional Patent: Methodologies for Software to Modify Human Voice. (First Inventor - 2003)**
   This provisional patent deals with the utilization of Ontologies, Artificial Intelligence Techniques, Speech Recognition, Speech Synthesis, software engineering, visualization, and delivery of these services over the Internet to improve the performance of Human Speakers with Speech Pathological Problems.

- **Grants and Contracts (2002 – 2016) (Strictly at UCF)**

  o **Including Grants managed by the Office of Research (ORC) at UCF and Other Funding such as Fellowships (e.g., 5 NASA Fellowships and Fulbright), several undergraduate students research grants, and projects such as i-CORPS and Florida Space Institute – Following strictly the guidelines provided by the "Straight Talk: Building my Promotion Dossier" – UCF Faculty Excellence (June 13, 2016).**

At University of Central Florida (UCF), I contributed to generating more than **$3,735,717.00** as Principal and Co-Principal Investigator of numerous projects (2002-2017).
- **$3,380,959.00** (from ORC report – Dividing *J Column (each project)* by *% of Credit/Effort D Column (each project)*)
- **$354,758.00** (i-CORPS, NASA Fellowships, Fulbright, IEEE Grant, Florida Space Institute)

  o As credit/effort assigned ("Split"), generated over **$1,668,010.00** in projects.
    - As credit/effort assigned and managed by UCF ORC **$1,508,466**
      - ***This amount is also shown in the ORC report***
    - As credit/effort managed by others (e.g., i-CORPS, Fulbright, NASA, FSI) **$164,544.00**

  o As principal investigator, generated in excess of **$ $1,704,312.00** in projects.
    - As provided by the ORC Report is **$1,605,282.00**
    - As PI from fellowships and others is **$99,030.00**

  o As co-principal investigator, generated $**2,031,405.00** in projects.
    - As provided by the ORC Report is **$1,775,677.00**
    - As co-PI from fellowships and others is **$255,728.00**

1. *Research on Implementation Issues in Multi-Resolution Combat Modeling, Co-Principal Investigator, (Dr. Gene Lee – PI), Korean* Real Time Visual*, $167,000.00 (2017). Luis Rabelo, Co-Principal Investigator, credit/effort assigned to Dr. Rabelo = 50% of the $167,000.00 assigned to UCF. Managed by Office of Research (UCF).*

2. *The Internet of Things for Fire Protection Systems, National Science Foundation (NSF – I-Corps), $2,600.00 (2016). Luis Rabelo, Principal Investigator, credit/effort assigned to Dr. Rabelo = 100% of the $2,550.00 assigned to UCF. Managed by Office of Research (UCF).*

3. *Virtual Safety Simulation, National Science Foundation (NSF – I-Corps), $2,600.00 (2015). Luis Rabelo, Principal Investigator, credit/effort assigned to Dr. Rabelo = 100% of the $2,600.00 assigned to UCF. Managed by Office of Research (UCF).*

4. *Development of 3-D virtual electric safety training by applying National Electric Safety Code (NESC) 2016, Institute of Electronics and Electrical Engineers (IEEE) Standards Division, $800.00 (2016). Luis Rabelo, Co-Principal Investigator, credit/effort assigned to Dr. Rabelo = 37.5% of the $800.00 assigned. Managed by IEEE.*

5. *An interoperability technology for LVC components and its prototype in the component-based simulation environment (AddSIM),* Co-Principal Investigator, (Dr. Gene Lee – PI), Korean Agency for Defense Development, **$520,000.00** (2014). **Luis Rabelo, Co-Principal Investigator, credit/effort assigned to Dr. Rabelo = 50%** of the $520,000.00 assigned to UCF. Managed by Office of Research (UCF).

6. *Developing ROK-ADD M&S Program,* Co-Principal Investigator, (Dr. Gene Lee – PI), Boeing Company, **$150,000.00** (2014). **Luis Rabelo, Co-Principal Investigator, credit/effort assigned to Dr. Rabelo = 50%** of the $150,000.00 assigned to UCF. Managed by Office of Research (UCF).

7. Applications of Advanced Lean Manufacturing Principles, **Principal Investigator**, ScreenWorks., $34,662.00 (2013-2014). **Credit/effort assigned to Dr. Rabelo = 100%**. $34,662.00 transferred to UCF in 2013. Managed by Office of Research (UCF).

8. *Computation-based discovery, A Summer Program Scholar.* **Principal Investigator**, National Science Foundation's Pan-American Advanced Studies Institutes (PASI) program, $3,000.00 (2008). **Credit/effort assigned to Dr. Rabelo = 100%** of the $3,000.00. Managed by Organization of American States (OAS).

9. Adaptive Virtual Response Trainer (AVRT) Regression Testing Process, **Principal Investigator**, Engineering & Computer Simulations, Inc., $13,020.00 (2013-2013). **Credit/effort assigned to Dr. Rabelo = 100%**. $13,020.00 transferred to UCF in 2013. Managed by Office of Research (UCF).

10. NASA IPA Assignment, **Principal Investigator**, NASA, $121,762.00 (2010-2011). **Credit/effort assigned to Dr. Rabelo = 100%**. 121,762.00 transferred to UCF in 2010. Managed by Office of Research (UCF).

11. NASA IPA Assignment – Performance Bonus (due to high performance and achievements in the position), **Principal Investigator**, NASA, $**2,271.00** (2009-2010). **Credit/effort assigned to Dr. Rabelo = 100%**. $2,271.00 transferred to UCF in 2010. Managed by Office of Research (UCF).

12. NASA IPA Assignment, **Principal Investigator**, NASA, $151,475.00 (2009-2010). **Credit/effort assigned to Dr. Rabelo = 100%**. 151,475.00 transferred to UCF in 2009. Managed by Office of Research (UCF).

13. *User Interface for Gas Flames and Detection Modeling,* **Principal Investigator**, Enterprise Energy Research, $4989.00 (2008). **Credit/effort assigned to Dr. Rabelo = 100%** of the $4,989.00 assigned to UCF. Managed by Office of Research (UCF).

14. *Fulbright Scholar.* **Principal Investigator**, US Department of State, $17,880.00 (2008). **Credit/effort assigned to Dr. Rabelo = 100%** of the $17,880.00 . Managed by US State Department. **Grantee Number is G49414721,** 2008.

15. *Trade Study of Existing Commercial RTI Solutions and Distributed Simulation Environment for Undersea Unmanned Vehicles and Sensor Fusion,* **Principal Investigator**, Lockheed Martin Corporation, **$20,967.00** (2007). The Grant has been utilized to fund primarily Ph.D. Students as Graduate Research Assistants. **Luis Rabelo, Principal Investigator, credit/effort assigned to Dr. Rabelo = 50%** of the $20,967.00 assigned to UCF. Managed by Office of Research (UCF).

16. *Engineering Leadership,* Co-Principal Investigator, (Dr. Pamela McCaulley Bell – PI), National Science Foundation, **$103,219.00** (2006). The Grant has been utilized to fund primarily Ph.D. Students as Graduate Research Assistants. **Luis Rabelo, Co-Principal Investigator, Credit/effort assigned to Dr. Rabelo = 40%** of the $103,219.00 assigned to UCF. Managed by Office of Research (UCF).

17. *Reengineering The Undergraduate Industrial Engineering Program,* Co-Principal Investigator, (Dr. Lesia Crumpton-Young – PI), National Science Foundation, **$5,000.00** (2006). The Grant has been utilized to fund primarily Ph.D. Students as Graduate Research Assistants. This is an extension to the current grant. **Luis Rabelo, Co-Principal Investigator, credit/effort assigned to Dr. Rabelo = 25%** of the $5,000.00 assigned to UCF. Managed by Office of Research (UCF).

18. *A Framework and Taxonomy for the Simulation of Spaceport Ground Processing and Launch Operations,* Co-Principal Investigator, (Dr. Sepulveda – PI), Florida Space Institute (State of Florida Grant), **$250,000.00** (2006). $125,000.00 were assigned to the University of Florida (Dr. Paul Fishwick – PI). The Grant has been utilized to fund primarily Ph.D. Students as Graduate Research Assistants and 0.25FTE release for Professors. **Luis Rabelo, Co-Principal Investigator, credit/effort assigned to Dr. Rabelo = 50%** of the $250,000.00 Managed by Office of Research (UCF).

19. *Simulation Modeling Environment to Measure Sensors' Effectiveness Using GIS information and Sensor Fusion,* Co-Principal Investigator, (Dr. Sepulveda – PI), Office of Navy Research (ONR) Award, **$179,947.00** (2006). The Grant has been utilized to fund primarily Ph.D. Students as Graduate Research Assistants and 0.25FTE release for Professors. **Luis Rabelo, Co-Principal Investigator, credit/effort assigned to Dr. Rabelo = 50%**. Managed by Office of Research (UCF).

20. *Simulation Modeling Environment to Measure Sensors' Effectiveness Using GIS information*, Co-Principal Investigator, (Dr. Sepulveda – PI), Office of Navy Research (ONR) Award, **$80,000.00** (2006). The Grant has been utilized to fund primarily Ph.D. Students as Graduate Research Assistants and 0.25FTE release for Professors. **Luis Rabelo, Co-Principal Investigator, credit/effort assigned to Dr. Rabelo = 50%**. Managed by Office of Research (UCF).

21. *Studies of the RTI for SGOS*, Principal Investigator, NASA Kennedy Space Center, **$26,800.00** ($14.1 K for students support, $10K Software, $2.7K for seminars, $5k Computers and overhead from USTDC), Fall 2005 (Total of $38,000.00). **Luis Rabelo, Principal Investigator, credit/effort assigned to Dr. Rabelo = 100%.** To be managed , $11.2K by USTDC (NASA KSC – ASRC) and $26.8K by Office of Research (UCF).

22. **NSF Center for e-Designs, Co-Principal Investigator, (Dr. Chris Geiger – PI), NSF $379,055.00 (2005-2008). The Grant has been utilized to fund primarily Ph.D. Students as Graduate Research Assistants. Luis Rabelo, Co-Principal Investigator, credit/effort assigned to Dr. Rabelo = 10%. Previously managed by Department Chairperson: Dr. Crumpton-Young and Office of Research (UCF).**

23. *Modeling the Effectiveness of Underwater Sonar*, Co-Principal Investigator, (Dr. Sepulveda – PI), Office of Navy Research (ONR) Award, **75,000.00** (2005). The Grant has been utilized to fund primarily Ph.D. Students as Graduate Research Assistants and 0.25FTE release for Professors. **Luis Rabelo, Co-Principal Investigator, credit/effort assigned to Dr. Rabelo = 50%**. Managed by Office of Research (UCF)

24. *Usability of Distributed Simulation Environments*, Principal Investigator, (Dr. Sepulveda – CoPI), NASA Johnson Space Center, **$42,998.00** (2004-2005) (**Research ID: 1041756 and 1041757**) . Extra $2,000.00 to travel as a member of ASTWG and ARTWG to Colorado Springs during Winter 2005). Total Funds: **$52,000.00.00**. The Grant has been utilized to fund primarily Ph.D., MS, and Undergraduate students as Research Assistants. **Luis Rabelo, Principal Investigator, credit/effort assigned to Dr. Rabelo = 50%**. Managed by Office of Research (UCF) and USTDC (NASA KSC – ASRC). Funds provided by NASA KSC and NASA JSC (Shuttle Program through the Industrial Engineering and Safety Program).

25. *Re-engineering the Undergraduate IEMS Program*, **Principal Investigator**, National Science Foundation, NSF, **$950,588.00** (2004-2007). This is a very unique grant. It was given to UCF over other universities. The Grant has been utilized to fund primarily Ph.D. and MS Students as Graduate Research Assistants, release for Professors, and trips to different professional meetings and conferences. **Luis Rabelo, Principal Investigator, credit/effort assigned to Dr. Rabelo = 25%.** Managed by Office of Research (UCF).

26. *Development of a Virtual Test Bed using Software Agents and Risk Assessment for Aerospace Range Safety Systems, Phase II*, Co- Principal Investigators, (Dr. Sepulveda – Principal Investigator), Florida High Tech Corridor Initiative (**Internal Funding**), January 1 to December 31, 2004, **$33,861**. The Grant has been utilized to fund primarily Ph.D. Students as Graduate Research Assistants and 0.25FTE release for Professors. **Luis Rabelo, Co-Principal Investigator, credit/effort assigned to Dr. Rabelo = 50%**. Managed by Office of Research (UCF).

27. *Development of a Virtual Test Bed using Software Agents and Risk Assessment for Aerospace Range Safety Systems, Phase II*, Principal Investigator, (Dr. Sepulveda – Co-PI), All Points Logistics and NASA Ames Research Center, January 1 to December 31, 2004, **$67,721**. The Grant has been utilized to fund primarily Ph.D. Students as Graduate Research Assistants and 0.25FTE release for Professors. NASA provided extra funding for Dr. Rabelo and Dr. Sepulveda to attend the FAA Research Center in New Jersey (Atlantic City) for $2,500.00 and the SAE World Aviation Congress in Reno, Nevada ($3,000). In addition, All Points Logistics contracted one of our Ph.D. Students: Jaebok Park as a Co-op for the grant, providing an extra $6,000.00 benefit to UCF. Total: **$81,500.00**. **Luis Rabelo, Principal Investigator, credit/effort assigned to Dr. Rabelo = 50%**. Managed by Office of Research (UCF) and All Points Logistics, Source of Funds: NASA ARC/NASA HQ/NASA KSC.

28. *Development of a Virtual Test Bed using Software Agents and Risk Assessment for Aerospace Range Safety Systems*, Luis Rabelo, Principal Investigator, (Dr. Sepulveda – Co-PI), Florida High Tech Corridor Initiative, January 1 to December 31, 2003, **$16,197,000**. The Grant has been utilized to fund primarily Ph.D. Students as Graduate Research Assistants and 0.25FTE release for Professors. **Luis Rabelo, Principal Investigator, Credit/effort assigned to Dr. Rabelo = 65%**. Managed by Office of Research (UCF).

29. *Development of a Virtual Test Bed using Software Agents and Risk Assessment for Aerospace Range Safety Systems*, Luis Rabelo, Principal Investigator, (Dr. Sepulveda – Co-PI), All Points Logistics, January 1 to December 31, 2003, **$40,000**.

The Grant has been utilized to fund primarily Ph.D. Students as Graduate Research Assistants and 0.25FTE release for Professors. **Luis Rabelo, Principal Investigator, Credit/effort assigned to Dr. Rabelo = 65%.** Managed by Office of Research (UCF).

30. *Integration Study of Virtual Range and Virtual Test Bed*: Dr. Rabelo, Principal Investigator and Dr. Sepulveda, Co-PI, Funding by APL – NASA Kennedy Space Center and NASA Ames Research Center, September 2003 to May, 2004, **$24,216**. **Luis Rabelo, Principal Investigator, credit/effort assigned to Dr. Rabelo = 50%**. Managed by Office of Research (UCF).

31. *Model Assessment of the Virtual Test Bed II*: Dr. Rabelo, Principal Investigator and Dr. Sepulveda, Co-PI, Funding by APL – NASA Kennedy Space Center and NASA Ames Research Center, September 2003 to May, 2004, **$16,931**. **Luis Rabelo, Principal Investigator, credit/effort assigned to Dr. Rabelo = 100%**. Managed by Office of Research (UCF).

32. *A Virtual Test Bed/Model Assessment of the Virtual Test Bed I*, Luis Rabelo: Principal Investigator, APL – APL – NASA Kennedy Space Center and NASA Ames Research Center, , January 1, 2003 to May, 2004, **$64,277**. NASA provided extra $15,000.00 to trips to conferences and to the different NASA Centers (NASA Johnson Space Center, NASA Ames Research Center, NASA Wallops, INCOSE Conference, AIAA Conference, and ASEM Conference in St. Louis). One student: Amith Paruchuri was hired for 12 months as a Co-OP student by All Points Logistics (approx. $30K). Total of benefits to UCF: Approx. **$109,000.00**. **Luis Rabelo, Principal Investigator, credit/effort assigned to Dr. Rabelo = 100%**. Managed by Office of Research (UCF).

33. *Reengineering the Undergraduate IEMS Program*, Co-Principal Investigator, (Lesia Crumpton-Young – PI), NSF, 2002-2004, **$99,962.00**. The Grant has been utilized to fund primarily Ph.D. and MS Students as Graduate Research Assistants, release for Professors, and trips to different professional meetings and conferences. **Luis Rabelo, Co-Principal Investigator, credit/effort assigned to Dr. Rabelo = 25%**. Managed by Office of Research (UCF).

34. NASA- Internship (NASA Kennedy Space Center), Principal Investigator, 2008, **$22,000**. Luis Rabelo, Principal Investigator, credit/effort assigned to Dr. Rabelo = 100%. Managed by NASA - KIP.

35. *NASA- ASEE Fellowship (NASA Kennedy Space Center)*, Principal Investigator, 2005, **$12,000**. **Luis Rabelo, Principal Investigator, credit/effort assigned to Dr. Rabelo = 100%**. Managed by NASA - ASEE.

36. *NASA- ASEE Fellowship (NASA Kennedy Space Center and Ames Research Center)*, Principal Investigator, 2004, **$12,000**. **Luis Rabelo, Principal Investigator, credit/effort assigned to Dr. Rabelo = 100%**. Managed by UCF – KSC office.

37. *NASA- ASEE Fellowship (NASA Kennedy Space Center)*, Principal Investigator, 2003, **$12,000**. **Luis Rabelo, Principal Investigator, credit/effort assigned to Dr. Rabelo = 100%**. Managed by UCF – KSC office.

38. *NASA- ASEE Fellowship (NASA Kennedy Space Center)*, Principal Investigator, 2002, $12,000 and complemented with $3,000.00 to travel to NASA Ames Research Center and NASA Wallops Flight Facility. Total **$15,000.00**. **Luis Rabelo, Principal Investigator, credit/effort assigned to Dr. Rabelo = 100%**. Managed by UCF – KSC office.

39. *Grants from the UCF Office of Research to Involve Undergraduate Students in Research (Principal Investigator, and Co-PI, UCF)* **$4,928.00:**

    a. Student: Ethling Hernandez (2004-2005) - **Luis Rabelo, Co-PI, credit/effort = 50%**. Managed by UCF Research Office.

    b. Student: Alvaro Cantillo (2004-2005) - **Luis Rabelo, Co-PI, credit/effort = 50%**. Managed by UCF Research Office.

40. Student Support Fellowships (**Luis Rabelo, Principal Investigator, credit/effort assigned: 100%**) $4,667.00.

PROFESSIONAL ACTIVITIES

- ## Service to the Department, College and University:

UNIVERSITY, COLLEGE AND DEPARTMENTAL COMMITTEES

Support the IEMS Department in several committees:
- Graduate Assessment (Ph.D. Program, MSIE, MS) (2014 – Present)
  - **Achievement – Our programs are classified as Exemplary in 2015-2016**

Plan Report Ratings:
5 = Exemplary, 4 = Accomplished, 3 = Maturing, 2 =Emerging, 1=Beginning, 0=Not submitted

Our Program/Units Plan are in Rubric Level: Exemplary (rating 5) in 2015-2016
Engineering Management - Professional Science Master's - M.S.
Industrial Engineering - M.S.I.E./M.S.
Industrial Engineering - Ph.D.

- Undergraduate Program Coordinator (Starting August 15, 2016)

Other Assignments:

1. CECS Dean Review Committee Fall 2017-Spring 2018
2. Search Committee (IST Deputy Administrator) – Spring/Summer 2018
3. IEMS Department Chairman Review Committee
4. Library University Committee
5. Promotion and Tenure Committee (CECS Level)
6. RIA (CECS Level)
7. Undergraduate Committee (IEMS Level)
8. ABET Committee (IEMS Level)
9. Search Committee Spring/Summer 2018 (IEMS Level)
10. UCF IEMS Chair of the Admissions Committee (2013 – 2016)
11. UCF IEMS Graduate Committee (2015 – 2016)
12. UCF IEMS Search Committee (2015-2016)
13. UCF IEMS Chair of the Search Committee 2014-2015
14. UCF CECS College Committee Representative for I/L Promotion Committee
15. UCF University Level Library Committee, 2011-2013
16. UCF University Level IRB Committee, 2006 – Present.
17. UCF CECS RIA Committee, 2013 – Present.
18. UCF University Level Interdisciplinary Center Committee 2004.
19. UCF College Level Committee for the Honor Students Selection, 2004.
20. UCF, College Level Committee for Excellence Awards, 2006.
21. UCF IEMS Member of the Qualifying Examination for Engineering Management, 2002 – 2004.
22. UCF IEMS Member of the Qualifying Examination for Industrial Engineering, 2004.
23. UCF IEMS Member of the Qualifying Examination for Simulation Modeling, 2003.
24. UCF IEMS Strategic Planning and Revamping Curriculum Committee, 2002 - 2005.
25. UCF IEMS Research Committee, 2004 – 2005.
26. UCF IEMS Graduate Committee, 2002 - 2004.
27. UCF IEMS Search Committee (Industrial Engineering), 2002-2005.
28. UCF IEMS Search Committee (Administrative Vice Chairman Position) 2002.
29. UCF IEMS Revamping Curriculum for Engineering Management Committee 2002-2003.
30. UCF IEMS Department Engineering Management Committee 2001.
31. UCF IEMS Department Real-Time Simulation Committee 2001.

32. UCF IEMS Department Research Committee 2001.
33. UCF College Search Committee for "IEMS Chair", 2001 - 2002.
34. OU University Search Committee for "Dean of Engineering and Technology", 1995 - 1996.
35. OU University Curriculum Council, 1994 - 1996.
36. OU Computer Education Advisory Committee, College of Engineering, OU, 1991 - 1992
37. OU Intergraph CAD/CAM Steering Committee, College of Engineering, OU, 1991 -1996
38. OU CIM College-wide Advisory/Action Committee, 1991 - 1996
39. OU College Curriculum Committee, 1995 - 1996
40. OU Department Search Committee 1994
41. OU Department Search Committee 1993
42. OU Department Search Committee 1992

UNIVERSITY STUDENTS GROUPS ADVISOR

1. **Faculty Advisor to the Society of Hispanic Professional Engineers (SHPE) (2003 – 2010)**
2. **Faculty Advisor the Society for International Business at UCF and Rollins College (2003 – 2005)**

- ## Service to the Profession

PROFESSIONAL SOCIETY MEMBERSHIPS in the LAST 15 Years

IIE	Institute of Industrial Engineers
IEEE	Institute of Electrical and Electronics Engineers
ASEE	American Society for Engineering Education
ASEM	American Society for Engineering Management
INFORMS	Institute for Operations Research and the Management Sciences
IAMOT	International Association for Management of Technology
SAE	Society of Automotive Engineers
System Dynamics	Society of System Dynamics

INTERNATIONAL OFFICES (Executive Officer)

1. Member of the Governing Board of the American Society for Engineering Management (2003 – 2007)
2. Member of the Supply Chain Council (SCC) Special Interest Group (SIG) Steering Committee in Aerospace & Defense (A&D) 2005 – Selected by Peer Review. The Supply Chain Council has more than 1,000 companies as members.
3. Member of the Executive Group of Aerospace Operations of the Society of Automotive Engineers (SAE) (2003 – Present)
4. Goodwill Ambassador for the United States of America of the Internacionale Comitato Per Cristoforo Colombo, ICCC, Genoa, Italy (2012 – 2014)

- ## List service as editor, associate editor, or member of editorial board

1. Member of the **Editorial Board of IIE Transactions (2000-2002)**
2. Member of the Editorial Board of the International Journal of Computational Intelligence and Organizations
3. Member of the Editorial Board of the Modelling and Simulation in Engineering Journal (2010-Present)
4. Current Member of the Editorial Board of the International Journal of Technology Marketing
5. Member of the Editorial Board of the UCF Undergraduate Research Journal (2006-2009)

6. Member of the Editorial Board of the Recent Patents on Aerospace Journal (2008-2012)
7. Member of the Editorial Board of the Industrial Engineering & Management Journal (2010-2015)
8. Current Associate Editor of International Journal of Manufacturing Systems and Industrial Engineering (IJMSIE)
9. Member of the **Program Committee of the Winter Simulation Conference** (Orlando, 2005)
10. Former Member of the **International Committee of the 2005 IEEE International Conference on Service Operations and Logistics,** and Informatics (Beijing, China, 2005)
11. Former Member of the **International Committee of the 2005 IEEE International Conference on Service Operations and Logistics,** and Informatics (Shanghai, China, 2006)
12. Member of the Organizing Committee of **SAE AeroTech International Conference** 2007 (Los Angeles, CA)
13. Member of the Organizing Committee of **SAE AeroTech International Conference** 2009 (Seattle, WA)
14. Member of the Organizing Committee of **SAE AeroTech International Conference** 2011 (Toulouse, France)
15. Member of the Organizing Committee of **SAE AeroTech International Conference** 2013 (Montreal, Canada)
16. Member of the Organizing Committee of **SAE AeroTech International Conference** 2015 (Seattle, WA)
17. Member of the Organizing Committee of **SAE AeroTech International Conference** 2017 (Fort Worth, TX)
18. Editorial Member of the Journal of Aerospace – Florida Institute of Technology (2015 – Present)
19. Member of the Organizing Committee of the IX Latin America Industrial Engineering Conference 2016
20. Current Member of the Editorial Board of Revista Mutis (UniTadeo, Bogota, Colombia)
21. Current Member of the Editorial Board of Revista de Ingenieria Industrial, Universidad del Bio Bio, Chile.
22. Current Member of the Editorial Board of Inquiry (the Journal of Health Care Organization)
23. Member of the Program Committee of the WinterSim Conference 2018 – Military Applications.
24. Member of the Program Committee of the 1st International Conference on Applied Informatics - 1st to 3rd November 2018, Bogota, Colombia

• **List consulting activities**

1. Dr. Rabelo coached and produced with two graduate students a business plan: AccentFree.com. This business plan competed in an entrepreneurial competition that included the universities from Latin America, Spain, and the State of Florida. The entrepreneurial competition was sponsored by the College of Business of Florida International University. AccentFree.com got the first prize from 63 international entries and got the sum of $10,000.00 as complement of the prize.
2. Dr. Rabelo has started companies in Latin America and Europe.
3. Dr. Rabelo has participated several times in the most famous entrepreneurial competition: the MIT 50K (2000, 2003).
4. Dr. Rabelo is in the board of several ventures.
5. Dr. Rabelo has been doing consulting for many companies such as Tyco International, Boeing Phantom Works, Productivity Apex, Inversiones Panama Florida, All Points Logistics, Goodrich Aerospace, and the State of Illinois.

• **List professional license and certifications held**

Professional Engineer (Licensed) – Republic of Panama and Central America
Green Belt – Lean Six Sigma

• **List other external professional service activities**

MEMBER OF PANELS OF THE NATIONAL SCIENCE FOUNDATION AND GOVERNMENT PROPOSALS

1. Panelist for the NSF EPSCoR Program 2014 (Revision of Current Programs)
2. Panelist for the NSF EPSCoR Program 2014 (New Programs)
3. Panelist for the NSF EPSCoR Program 2013 (Revision of Current Programs)
4. Panelist for the NSF EPSCoR Program 2013 (New Programs).
5. Reviewer of the NASA EPSCoR Program 2012, 2013, 2014, 2015.

6. Panelist of the HENAAC to choose the prizes and awards for the STEM Professional community (US Hispanics) in 2012.
7. Reviewer and Panelist of the NASA Exploration Schools Program (http://www.nasa.gov/offices/education/programs/national/nes2/home/index.html), May 2011.
8. Review for the NASA Minority Forum in 2010 and 2011 by Invitation, May 2010 and May 2011.
9. Support to the Lunabotics Competition (http://www.nasa.gov/offices/education/centers/kennedy/technology/lunabotics.html).
10. Panelist of the NASA CIPAIR (Curriculum Improvements Partnership Award for the Integration of Research) by Invitation, July, 2009, NASA Kennedy Space Center, Florida.
11. Panelist of the NASA MSP (MUREP (Minority University Research and Education Program) Small Projects) by invitation, June, 2009, NASA Kennedy Space Center, Florida.
12. Panelist of the Panamanian Government to Select the Best Technological News (Written Press, Radio, and Television) in the Republic of Panama (November 2009) – by invitation, Technological University of Panama, Panama City, Republic of Panama, November 2009.
13. Panelist of the NASA URC (University Research Centers) by invitation, May 2009, NASA, Washington DC.
14. Panelist of the NSF (Invitations) - Manufacturing Enterprise Systems (MES) Program Division (Design, Manufacture, & Industrial Innovation(DMII)) (December 2003 and April 2004), Washington DC.
15. Panelist of the NSF (Invitations) - Information & Intelligent Systems (IIS) Program Division (Computer & Information Science & Engineering (CISE)), Washington DC.
16. Reviewer for the National Institute of Standards and Technology (NIST – US Department of Commerce) for their internal programs, Gaithersburg, Maryland.

UNIVERSITY/INDUSTRIAL BOARDS

1. Member of the Industrial Board of the Complex Systems Research Center of Carnegie Mellon University (sponsored by NSF), 2000-2001.

• **Other activities**

POLITICAL ACTIVISM

1. Advisor to the Senate of the Republic of Panama (1995-1997, 2004-2005, 2011- Present)
2. Attended United Nations Security Council Meetings (New York) related to Nuclear Research and Proliferation (1995) – Advisor (Government of the Republic of Panama).
3. Member of the Initial Committee to study the policies to improve the Social Security System in the Republic of Panama (appointed by the President of the Republic of Panama) in 2004-2005.

SAMPLE OF PROFESSIONAL DEVELOPMENT (1993-2015)

1. CyberSecurity (Certificate), Massachusetts Institute of Technology, September-October, 2015.
2. Tackling the Challenges of Big Data (Certificate), Massachusetts Institute of Technology, February-March, 2015.
3. IAP Course Coolnetworking 3.0, Coolhunting and Coolfarming through Swarm Creativity, Massachusetts Institute of Technology, January 2015
4. Simigon and LVC Simulation, November 2014.
5. Parallel Discrete-Event Simulation and WARP IV (Jeff Steinman), Orlando, Florida, November 2014.
6. Filmmaking and Production: April 7-8, 2013, Panama City, Republic of Panama.
7. Methods in Computation-Based Discovery (CBD), Pan-American Advanced Studies Institute (PASI) - July 15-26, 2013, at the Universidad del Valle de Guatemala in Guatemala.
8. SAP (Enterprise System Courses): IEM1054 PR REVIEW PROCESS, CORE FINANCIAL CROSS-FUNCTIONAL (FM-FI-MM-CO RELATIONSHIPS) OVERVIEW December 17-18, 2009, Kennedy Space Center.
9. Project Management Courses: ETHICS TRAINING (2009), Identifying Project Risks; Approach to NPR 7120.7 (MODULE 1) – PROJECT MANAGEMENT LITE/MEDIUM FRAMEWORKS, October 2009, Kennedy Space Center.
10. **Human Research Protection Program**, Huron Consulting Group, June 9, Orlando, FL, 2009.

11. "**Agent-Based Simulation: A New Approach to Systems Modeling**," Averill M. Law & Associates. Washington DC, 2008.
12. "**Human Research Protection Programs in an Evolving Research Landscape**," December 1-4, 2007, Boston, MA.
13. Local **UCF IRB Training Session** – UCF, October 24, 2007.
14. Executive Education: **The Art and Practice of Leadership Development**. May 18-25, 2007. Harvard University, John F. Kennedy School of Government, Cambridge, 2007.
15. Forum: **Challenges in Protecting Human Subjects in Research**, February 2007, Florida Hospital Institutional Review Board.
16. Training Course: **AnyLogic: Discrete-Event Simulation, Software Agents, Continuous Simulation, and System Dynamics**, , Version 6.0, Orlando, February 2007.
2. Course: **CITI Course in The Protection of Human Research Subjects**, Orlando, Florida, December 2006.
17. Course: **A Practical Guide to HLA Programming**, Distributed Simulation Technology Inc., Orlando, Florida, April 2006.
18. Course: **DMSO Modeling and Simulation Staff Officer Course**, Department of Defense, Orlando, Florida, July 2005.
19. Course: **Faculty International Studies Summer Institute**, University of Central Florida, Orlando, Florida, May 2005.
20. Course: **SCOR Model 6.1** Supply Chain Council, Phoenix, Arizona, January 2005.
21. Courses to teach On-line/Internet/WebBased University Courses to Adults: 9a Jornada de Capacitación: " **Diseño Visual**", "**Comunicación Educativa**", and "**Psicología y Educación de Adultos**", Technological University of Panama, August 2004 to October 2004, using the Web.
22. Training Course: **AnyLogic: Discrete-Event Simulation, Software Agents, Continuous Simulation, and System Dynamics**, , Chicago, July 2004.
23. Training Course: **High Level Architecture and DMS Adapter**, National Institute of Standards and Technology, Orlando, August 2003.
24. Training Course: **Satellite Tool Kit**, Analytical Graphics, Melbourne, August 2003.
25. Training Course: **Intelligent Geographical Information Systems**, Boeing Autometric, Orlando, May 2003.
26. Training Course: **SPEEDES: Distributed Simulation**, METRON Inc., Orlando, April 2003.
27. Workshop: **Nuclear Power to go to Mars**, MIT, Boston, January 2003.
28. Tutorial: **Inside Discrete-Event Simulation Software**, WinterSim, San Diego, California, December 2002.
29. Workshop: **Human-Centered Computing,** NASA Johnson Space Center, October 2002.
30. Tutorial: **Unmanned Aerial Vehicles**, WinterSim, San Diego, California, December 2002.
31. Seminar: **Advanced in Robotics at MIT Draper Laboratories**, MIT, Boston, January 2003.
32. Tutorial: **Object Oriented Simulation Using JAVA**, WinterSim, San Diego, California, December 2002.
33. Training Course: **IDL6543**, Office of Web Services, Fall 2002.
34. Seminar: **Internationalization of Courses**, University of Central Florida, Orlando, April-May 2002.
35. Seminar: **H.NET Information Technologies**, MIS University of Toledo, Cocoa Beach, March 2002.
36. Seminar: **Data Mining in Financial Systems**, Hyperion, Orlando, June 2001.
37. Seminar: **WebCT**, University of Central Florida, December 2001.
38. Course: **Supply Chain Management and the SCOR Model** Supply Chain Council, Chicago, June 2000.
39. Course: **Java and Interactive Programming** Department of Electrical Engineering, Massachusetts Institute of Technology, Cambridge, Massachusetts, June 1998.
40. Course: **Advanced Neural Networks and Process Control,** AspenTech, Pittsburgh, April 1998.
41. Course: **G2: Intelligent Objects and Multiple Inheritance**, Gensym Corporation, Cambridge, Massachusetts, March 1998.
42. Course: **Finite Scheduling and Supply Chain Using MILP,** Advanced Process Combinatorics, West Lafayette, Indiana, February 1998.
43. Course: **Neural Networks and Process Control,** AspenTech, Pittsburgh, 1997.
44. Course: **Computer-Aided Multivariable Control System Design,** Department of Electrical
45. Engineering, Massachusetts Institute of Technology, Cambridge, Massachusetts, June 1997.
46. Course: **G2 Part 2: Intelligent Objects and Multiple Inheritance**, Gensym Corporation, Cambridge, Massachusetts, March 1997.
47. Course: **G2 Diagnostic Assistant: Information Flow Diagrams and Diagnostic Procedures for Intelligent Operator Applications**, Gensym Corporation, Chicago, Illinois, January 1997.
48. Tutorials: (1) **From Traditional Statistical Models to Neural Networks,** (2) **Reinforcement Learning,** and (3) **Challenges of Time Series Prediction**, Natural Information Processing Systems, Denver, Colorado, December 1996.
49. Course: **G2 Part 1: Intelligent real-time Systems**, Gensym Corporation, Cambridge, Massachusetts, October 1996.
50. Course: **Fuzzy Logic Inference**, Intelligent Inference Systems Corp., San Francisco, California, 1996.
51. Tutorials: (1) **Neural Networks for Identification and Control,** (2) **Computational Learning and Statistical Prediction,** and (3) **Unsupervised Learning Procedures**, Natural Information Processing Systems, Colorado, November 1995
52. Course: **AutoSched Scheduling System**, AutoSimulations, Washington DC, August 1995
53. Course: **FACTOR 5.2 Scheduling System**, Pristker Corporation, Washington DC, July 1995

54. Course: **QUEST: The Simulation Language**, Deneb Robotics, Washington DC, June 1995
55. NSF Sponsored Workshop, "**Mechatronics**," California Polytechnic Institute, California, June 1995
56. Course: **Simulation with ARENA**, Systems Modeling Corporation, Washington DC, May 1995
57. Tutorials: (1) **Intelligent Data Modeling**, (2) **Neural Networks and Statistical Methods**, St. Louis, Missouri, November 1994
58. NSF Sponsored Workshop, "**Parallel Processing**", Illinois State University, Illinois, June 1994
59. Tutorials: (1) From **Backpropagation to Neurocontrol**, (2) **Visual Pattern Recognition** with Neural Networks, and Short Course: **Genetic Algorithms**: Theory and Applications (INNS), San Diego, June 1994
60. **Evolutionary Computation**, Natural Selection, Inc., Sponsored by IEEE, California, April 1994
61. Tutorials: (1) **Rapid Prototyping for Robotics and Automation** (2) The **Automated Factory of the Future**, IEEE Robotics and Automation, San Diego, April 1994
62. L*.net **Simulation Modeling** of Local Area Networks (CACI), Arlington, Virginia 1993
63. **Reinforcement Learning**: A Machine Learning Workshop (University of Massachusetts), Amherst, Massachusetts, July 1993
64. **Neural Networks, Statistics,** and **Information Theory** in Sequence Analysis (Intelligent Systems for Molecular Biology-NIH), Bethesda, Maryland, June 1993
65. **Automatic Data Collection** and **Bar Code Systems** (Automatic Identification Manufacturers, Inc.), Athens, Ohio, May 1993
66. **Berkeley Initiative for Soft Computing** (BISC) Extended Seminar (**Fuzzy Logic**), University of California, Berkeley, California, March 1993.

AWARDS Received by STUDENTS (SAMPLE)

1. Viet Trinh - Best Honor Thesis in Technology in the University of Central Florida 2003
2. Fred Gruber – Graduate Merit Fellowship Award for Graduate Studies at UCF (2003-2004).
3. Asisa Musa – GEM Fellowship and Intel Fellowship (2003-2006)
4. Rana Riad – Pegasus Award
5. Stuart Laval – Best Employee (Duke Energy)
6. Tomi Joledo – Graduate Merit Fellowships
7. Sayli Bhide – IEEE and Graduate Merit Fellowships

OTHER SCHOLARLY ACTIVITIES – CONFERENCE AND SESSION CHAIRPERSON

1. IX Simposium of Industrial Engineering - Present and New Trends, Organizer, 2016, Porto Alegre, Brazil, October 19-21, 2016.
2. ACM SIGSIM PADS International Program Committee, London, UK, 2015.
3. Aerospace Operations Committee Vice-Chair for the SAE Aerotech Conference, Seattle, USA, 2015.
4. Aerospace Operations Committee Vice-Chair for the SAE Aerotech Conference, Montreal, Canada, 2013.
5. Man-Machine Interface Committee Vice-Chair for the SAE Aerotech Conference, Toulouse, France, 2011.
6. Session Chairman of the Winter Simulation Conference. Baltimore, Maryland, December 2010.
7. Man-Machine Interface Committee Member for the SAE Aerotech Conference, Seattle 2009.
8. Man-Machine Interface Committee Member for the SAE Aerotech Conference, Los Angeles 2007.
9. Organizer of three sessions in Aerospace for the SAE Aerotech Conference, Los Angeles 2007.
10. Session Chair of "Aerospace Operations III", SAE Aerotech Conference, Los Angeles 2007.
11. Session Chair, "Methodologies to Tame Complexity" INFORMS, 2007, Rio Grande, Puerto Rico, July 2007.
12. Cluster Chair, "Complex and Dynamic Systems" INFORMS International, Puerto Rico, 2007.
13. Session Chair, "Winter Simulation Conference" 2006, Monterrey, California, December 2006.
14. Program Committee, "Winter Simulation Conference" 2005, Orlando, Florida, 2005.
15. Aerospace and Military Applications – Track Coordinator, "Winter Simulation Conference" 2005, Orlando, Florida.
16. Organizer of the World Aviation Congress 2005 and organizer of the following sessions in space robotics and business intelligence.
17. Organizer of 4 sessions in "Aerospace Simulation and Modeling", "Ontologies in Simulation", and "Why System Dynamics" for the Winter Simulation Conference, 2005.
18. Program Committee, "IEEE International Conference on Service Operations and Logistics, and Informatics", 2005, 2006, 2007.
19. Session Chair, "Industrial Engineering Research Conference" 2006, Orlando, Florida, May 2006.
20. Session Chair, "Industrial Engineering Research Conference" 2005, Atlanta, Georgia, May 2005.

21. Session Chair, "Winter Simulation Conference" 2004, Washington DC, December 2004.
22. Session Chair, "World Aviation Congress" 2004, Reno, Nevada, November 2004.
23. Session Chair, "American Society for Engineering Management" 2004, Washington DC, October 2004.
24. Session Chair, "Industrial Engineering Research Conference" 2004, Houston, Texas, May 2004.
25. Organizer of the "Human-Centered Computing" Meeting from the NASA Intelligent Systems Program at UCF, October 2003.
26. Session Chair, "Winter Simulation Conference" 2003, New Orleans, Louisiana, December 2003.
27. Program Committee, "Information Systems Conference" 2002, Cocoa Beach, Florida, June 2002.
28. Session Chair, "Industrial Engineering Research Conference" 2002, Orlando, Florida, May 2003.
29. Session Chair, "Industrial Engineering and Management Systems Conference" 2002, Cocoa Beach, Florida, March 2002.
30. Program Committee, IAMOT, Miami Beach, Florida, 2002.
31. Conference/Symposium Chairperson with B. Mehta: "OAI Neural Net Symposium 1995", sponsored by the Ohio Aerospace Institute (OAI), NASA Lewis Research Center, Wright Patterson Air Force Base, and OU Research and College of Engineering, August 21, 22, 1995.
32. Support to the AI Cluster for INFORMS, New Orleans, and Session Chairperson with T. Velasco: (1)"Hybrid Intelligent Systems" and Session (2)"Applications Based on Soft-Computing Paradigms", October 1995.
33. Organizer with B. Mehta: (1) "Soft Computing", (2) "Adaptive Techniques," Eleventh International Conference of Mathematical and Computer Modeling and Scientific Computing, Washington DC, March 1997.
34. Session Chairperson and Organizer with B. Mehta: (1) "Artificial Intelligent Systems," (2) "Optimization Using Genetic Algorithms and Neural Networks," Tenth International Conference of Mathematical and Computer Modeling and Scientific Computing, Boston, MA, July 1995.
35. Member of the Organizing Committee: Adaptive Distributed Parallel Computing Symposium, Wright Laboratory and Wright State University, Dayton, Ohio, August 8-9, 1996.
36. Member of the Organizing Committee: Tenth International Conference of Mathematical and Computer Modeling and Scientific Computing, Boston, MA, July 1995.
37. Support to the AI Cluster for ORSA/TIMS Conferences and Session Chairperson: "Intelligent Systems Based on Soft Computing Paradigms," ORSA/TIMS Joint Meeting, Detroit, October 1994.
38. Session 5: Flexible Manufacturing Systems II, International Conference on Object Oriented Manufacturing Systems, Calgary, Canada, 1992.
39. Member of the IFIP Working Group Special Interest on Knowledge-Base Reactive Scheduling representing US.
40. Conference Organizer and Chairperson, Neural Networks Symposium and Workshop, Sponsored by NASA Lewis Research Center and Wright Patterson Air Force Base, 1995.

BOOKS, JOURNALS, CONFERENCES, RESEARCH PROJECTS REFEREEING

1. John Wiley & Sons, Inc. (MIS textbooks), 2004 - Present
2. National Institute of Standards and Technology (**NIST**), 1992 - Present.
3. National Science Foundation (**NSF**), 1992 - Present.
4. Ohio Board of Regents, 1993 - 1996.
5. Ohio University Research Committee, 1993 - 1996.
6. Journal of Intelligent Manufacturing, 1990 - Present.
7. International Journal of Production Research, 1991 - Present.
8. European Journal of Operations Research, 1991 - Present.
9. International Journal of Systems Automation, 1991 - Present.
10. Mathematical and Computer Modeling and Scientific Computing Journal, 1992 - 2000.
11. Journal of Optimal Control Applications and Methods, 1992 - Present.
12. International Journal of Computer Integrated Manufacturing, 1992 - Present.
13. Interfaces (TIMS), 1993 - Present.
14. Computers & Industrial Engineering: an International Journal, 1990 - Present.
15. IIE Transactions, 1993 - Present.
16. IEEE Control Systems Magazine, 1992 - Present.
17. IEEE Transactions on Neural Networks, 1992 - Present.
18. IEEE Transactions on Systems, Man, and Cybernetics 1992 - Present.
19. IEEE Transactions on Robotics & Automation, 1994 - Present.
20. IEEE Transactions on Engineering Management, 1994 - Present.
21. Computers in Industry, 1993 - Present.

22. International Journal of Computational Intelligence and Organizations, 1995 - 1996.
23. International Journal of Technology Management, 2004 – Present
24. International Journal of Simulation and Process Modeling, 2004 – Present
25. Communications of the ACM, 2004 – Present
26. International Journal of Technology Marketing, 2005 – Present
27. American Society for Engineering Management Conference, 2003- Present
28. International Transactions in Operations Research, 2005 – Present
29. IEEE International Conference on Service Operations and Logistics, and Informatics, 2005 – Present
30. SAE World Aviation Congress, 2004 – Present
31. IEMS Conference, Cocoa Beach, 2002 – Present
32. IEEE Conference on Control Applications, 1992 - Present.
33. IEEE Decision and Control Conference, 1993 - Present.
34. IEEE Robotics and Automation Conference, 1993 - Present.
35. American Control Conference, 1993 - Present.
36. Flexible Automation and Information Management Conference, 1992 - Present.
37. Industrial Engineering Research Conference (IERC), 1993 - Present.
38. ASEE International Conference, 2002 - Present.
39. Winter Simulation Conference, 2003 - Present.
40. IFIP 5.7 Advances in Production Management Systems, 2005 – Present
41. International Journal of Simulation and Process Modeling, 2007 – Present
42. International Journal of Production Economics 2009 – Present
43. International Journal of Information Technology & Decision Making 2009 - Present

SAMPLE OF PH.D DISSERTATION COMMITTEE MEMBERSHIPS

Student's Name	Dissertation Title	Current Status	Expected Defense Term	Other Comments
Razmjoo, A.	**Improved Multi-Task Learning Based on Local Rademacher Complexity Analysis**	Passed Proposal	Summer 2018	UCF
Yousefi, N.	**Improved Multi-Task Learning Based on Local Rademacher Complexity Analysis**	**Defended Summer 2017**	**Completed**	UCF
Aldamarki, A.	**A framework for prioritizing opportunities of improvement in the context of business excellence model in healthcare organizations**	Passed Proposal	Fall 2018	UCF
White, I.	**Systems Dynamic Modeling for HIV**	Passed Qualifying	Fall 2018	UCF
Unlu, R.	**Weighting Policies for Robust Unsupervised Ensemble Learning**	**Defended Spring 2017**	**Completed**	UCF
Panagopoulos, O.	**Data mining models for tackling high dimensional datasets and outliers**	**Defended Summer 2016 University of New York**	**Completed**	UCF
Yeaton, A.	**Body Mass Biass Mitigation for Females in Military Physical Readiness Testing**	**Defended Fall 2015 US Army**	**Completed**	UCF

	Through Load Carriage Implementation			
Gibson, D.	A Method for Evaluating the Systems Engineering Practices of Aerospace Organizations	**Passed Proposal**	**Fall 2018**	UCF
Rabinowitz, M.	**Assessing the Effect of Social Networks on Employee Creativity in a Fast-Food Restaurant**	**Defended Summer 2016**	**Completed**	UCF
Abdulelah Ali	**A Predictive Model To Identify Caregivers At Risk Of Musculoskeletal Disorders**	**Defended Spring 2016**	**Completed**	UCF
Melissa Francisco	**A Framework of Critical Success Factors for Business Organizations that Lead to Performance Excellence Based on a Financial and Quality Systems Assessment**	**Defended Summer 2014**	**Completed**	UCF
Julie Sisson	**A Framework for the Development of a Model for Successful, Sustained Lean Implementation and Improvement**	**Defended Spring 2014**	**Completed**	UCF
Andreas Kuncoro	**An Empirical Study of the Effect of ISO 9001 on the Performance of Administrators and Teachers in the Indonesian Vocational Education System**	**Defended Spring 2014**	**Completed**	UCF
Abdullah Halawany	**Design for Six Sigma as a Methodology to Assess Curriculum**	**Defended Summer 2014**	**Completed**	UCF
Joe Bass	**Success in Technology Organizations**	*Defended Spring 2013*	**Completed**	UCF
Saleh Al-Foraih	**The Effect of Curriculum Organization on the Acquisition of Abstract Declarative Knowledge in Computer-Based Instructions**	*Defended Spring 2013*	**Completed**	UCF
Chandre Butler	**The Development of a Human-Centric Fuzzy Mathematical Measure of Human Engagement in Interactive Multimedia Systems Applications**	**Defended Spring 2010**	**Completed**	UCF
Haluk Akin	**Ontologies for Simulation and Optimization**	**Defended Spring 2009**	**Completed**	UCF
Robert Beaver	**Expertise, Collaboration and Organizational Learning in the AEC**	**Defended Summer 2009**	**Completed**	UCF

Melissa Balderrama	**Design of a Methodology to Elaborate Curriculo CIM of the Industrial Engineer in Spain based on QFD**	**Defended Fall 2008**	**Completed**	Student from Ramon Lull Universitat in Barcelona, Spain
Ferreras, A.	**A Comprehensive Multi-faceted Approach for Simultaneously Analyzing Critical Factors Related to Operational level Multi-Criteria Decision Making within Organizations**	**Defended Spring 2008**	**Completed**	UCF
Dayana Cope	**Ontologies and Supply Chain Management**	**Defended Summer 2007**	**Completed**	UCF
Melissa Guzman	**The Mediating Role of Motivation and Job Satisfaction in Work Environment-Outcome Relationships**	**Defended Summer 2007**	**Completed**	Psychology Department (UCF)
Luis Beltran	**Using Nonparametric Methods to Lower False Alarm Rates in Multivariate SPC**	**Defended Fall 2006**	**Completed**	UCF
James Barnard	**A Multi-View Framework for Defining the Services Supply chain using Object Oriented Methodology**	**Defended Fall 2006**	**Completed**	UCF
Shalam, T.	**Supply Chains Design for Make-to-Order**	**Defended Summer 2006**	**Completed**	UCF
Jose Nunez	**Knowledge Management in International Projects**	**Defended Summer 2005**	**Completed.**	UCF
Carolyn Mizell	**Quantitative Assessment of Software Development Project Management Issues Using Process Simulation Modeling with Continuous Simulation Element**	**Defended Summer 2006**	**Completed.**	UCF
Mohamed Asiri	**ISO 9000 in International Environments**	**Defended Spring 2005**	**Completed**	UCF
Grant Cates	**Managing Project Completion Time Distributions with Discrete Event Simulation**	**Defended Fall 2004**	**Completed**	UCF
Jose Sierra	**Quality Constraint Approach**	**Defended Spring 2004**	**Completed**	UCF
Sandra Furterer	**A Framework for Lean Six Sigma in Local Government Entities**	**Defended Spring 2004**	**Completed**	UCF
Gorana, Knezevic	**Measuring Process Quality**	**Defended spring 2004**	**Completed**	UCF
Jia, J.	**A Methodology for Cold Rolling Processes**	**Defended Fall 1997**	**Completed**	Ohio University
Ali, Zulfikar	**Effects on Temperature Dependent Thermal Cylindrical Ingots**	**Defended Fall 1995**	**Completed**	Ohio University

Fang, Xuefeng	**VLSI Design for Artificial Neural Vision Learning System**	**Defended Fall 1994**	**Completed**	Ohio University

SAMPLE OF M.S. THESIS COMMITTEE MEMBERSHIPS

Student's Name	MS Thesis Title	Degree Program	Institution	Completion Date
Jimenez, C.	**Transformacion del Envase de Agua Embotellada Utilizando ECOVIO® en Colombia**	**UniSabana – Engineering Management Program**	**UniSabana – Bogota, Colombia**	**Spring 2018**
Vezina, A.	**Quality by Design Procedure for Continuous Pharmaceutical Manufacturing: An Integrated Flowsheet Model Approach**	**MS IEMS**	**UCF**	**Fall 2017**
Valencia, R.	**Viabilidad socioeconómica y tecnológica para la implementación de una red de internet con tecnología PLC en un municipio sin interconexión a la red eléctrica del país**	**UniSabana – Engineering Management Program**	**UniSabana – Bogota, Colombia**	**Spring 2017**
Lozada, M.	**Viabilidad socioeconómica y tecnológica para la implementación de una red de internet con tecnología PLC en un municipio sin interconexión a la red eléctrica del país**	**UniSabana – Engineering Management Program**	**UniSabana – Bogota, Colombia**	**Spring 2017**
Gonzalez, J.	**Viabilidad socioeconómica y tecnológica para la implementación de una red de internet con tecnología PLC en un municipio sin interconexión a la red eléctrica del país**	**UniSabana – Engineering Management Program**	**UniSabana – Bogota, Colombia**	**Spring 2017**
Maestre, J.	**Modelo socioeconómico y ambiental eficiente para el reciclaje de residuos de construcción de la ciudad de Bogotá.**	**UniSabana – Engineering Management Program**	**UniSabana – Bogota, Colombia**	**Fall 2016**
Gonzalez, B.	**Modelo socioeconómico y ambiental eficiente para el reciclaje de residuos de construcción de la ciudad de Bogotá.**	**UniSabana – Engineering Management Program**	**UniSabana – Bogota, Colombia**	**Fall 2016**
Toro, Guillermo	**Análisis del modelo de negocio de una nueva Mipyme del sector de fabricación de estructuras metálicas mediante dinámica de sistemas**	**UniSabana – Engineering Management Program**	**UniSabana – Bogota, Colombia**	**Spring 2016**
Buitrago, Gladys	**Análisis del modelo de negocio de una nueva Mipyme del sector de fabricación de estructuras metálicas mediante dinámica de sistemas**	**UniSabana – Engineering Management Program**	**UniSabana – Bogota, Colombia**	**Spring 2016**

Sendi, Y.	**Integrated Maritime Simulation Complex Management, Quality and Training Effectiveness from the Perspective of Modeling and Simulation in the State of Florida, USA (A Case Study)**	IST	UCF	**Fall 2015**
Koo, Y.	**A study on the analyzing priority of limiting factors in live, virtual, and constructive (LVC) simulation interoperability using analytic hierarchy process (AHP) method**	IEMS	UCF	Spring 2015
Aboodi, M.	**A Framework for Measuring and Analyzing Customer Satisfaction at Computer Service Companies Using Lean Six Sigma**	IEMS		Spring 2014
Haghtalab, S.	**An Unsupervised Consensus Control Chart Pattern Recognition Framework**	IEMS	UCF	Spring 2014
Maher Al-Shamkhani	**Managing, Controlling, and Improving the Treatment of Produced Water Using the Six Sigma Methodology for the Iraqi Oil Fields**	IEMS	UCF	**Spring 2013**
Ahmad, A.	**Ontologies for Supply Chain Management**	IEMS	UCF	**Spring 2003.**
Sala-Diakanda, S	**Comparison between Riveting and Friction Stir Welding for Aircraft Assembly - Aerospace**	IEMS	UCF	**Spring 2003.**
Ismail, S.	**Process Capability Analysis Using Motorola's Six Sigma Characterization Methodology**	IEMS	UCF	**Spring 2002.**
Bakshi, G.	**Comparison of Ridge Regression and Neural Networks for Modeling Multicollinear Data**	IMSE	Ohio University	**Winter 1996.**
Rajendran, V.	**Coordinated Measuring Machines**	IEMS	UCF	**Fall 1995**
Malkani, A	**Implementing FuzzyARTMAP on a Hypercube (iPSC)**	ECE	Ohio University	
Huang, Z.	**Computer-Aided Modeling and Simulation of Molecular Systems and Protein (WT-bGH) Structure Minimization**	ME and Biomolecular Engineering	Ohio University	**Spring 1995.**
Kanumury, R.	**Integrating Business and Engineering Processes in Manufacturing Environments Using AI Concepts"**	ECE	Ohio University	**Spring 1995.**
Gautam, S.	**Computer-Aided Modeling and Analysis of the Human Femur**	ME and Biomolecular Engineering	Ohio University	**Winter 1995.**
Matta, V.	**Prediction of Proteins Secondary Structure using the Probabilistic Neural Network**	ME and Biomolecular Engineering	Ohio University	**Fall 1994.**
Thomas, G.	**Genetic Algorithms in Reliability Engineering**	ISE	Ohio University	**Fall 1994.**

Rajani, S.	**3-D Modeling and Finite Element Analysis of the Tibia**	ME and Biomolecular Engineering	Ohio University	**Fall 1994.**
Roy, P.	**Prediction of Proteins Secondary Structure using FuzzyARTMAP**	ME and Biomolecular Engineering	Ohio University	**Summer 1994.**
Lanka, S.	**Object-Oriented Simulation at Real-Time for a Manufacturing Facility**	ECE	Ohio University	**Spring 1994.**
Yang, Y-W	**Segmentation and Clustering in Neural Networks for Image Recognition**	ECE	Ohio University	**Winter 1994.**
Reddy, S.	**Object Oriented Cell Controller for a Manufacturing Shop Floor**	ECE	Ohio University	**Fall 1993.**
Soni, R.	**Computer-Aided Modeling and Simulation of Molecular Systems and Proteins Secondary Structure**	ME and Biomolecular Engineering	Ohio University	**Fall 1992.**
Ansari, N.	**Handwritten Character Recognition by Using Neural Networks Based Methods**	ECE	Ohio University	**Summer 1992.**
Lee, Y-G.	**An Algorithm for Solving the TSP with 3D Polygonal Barriers**	ISE	Ohio University	**Summer 1992.**
Lockesh, R	**Prediction of Proteins Secondary Structure**	ME and Biomolecular Engineering	Ohio University	**Summer 1992.**
Kellmeyer, D.	**Detection of Highway Warning Signs in Natural Color Images**	ISE	Ohio University	**Winter 1992.**
Chen, S	**Development of a Neural Network Based Software Package for the Automatic Recognition of License Plate Characters**	ISE	Ohio University	**Fall 1991.**

SAMPLE OF INDEPENDENT STUDIES AND DIRECTED RESEARCH (UCF, 2002 – PRESENT)

Student's Name	**Topic**	**Term**
Edgar Gutierrez	Visual and Predictive Analytics	Spring 2016
Mengmeng Chen	Social Networks, Agents, and Reinforcement Learning	Spring 2015
Bibi Ibrahim	The SCM of Energy Storage	Spring 2015
Joe Pastrana	The Simulation Life Cycle	Summer 2010
Joe Pastrana	SysML and Hybrid Simulation	Spring 2010
Lo Tsai	Options Theory and Simulation	Fall 2009
Joe Pastrana	Hybrid Simulation for the Enterprise	Fall 2009
Mario Marin	Research about Patient Simulators and Ecology of Infectious Diseases	Summer 2009
Jose Cintron	Research about Quantification of Knowledge Using System Dynamics	Summer 2009
Jose Cintron	System Dynamics	Spring 2009
Jose Cintron	Knowledge and Engineering Economics	Fall 2008
Daisy Mueller	Complex Systems	Spring 2007
Gus Laurens	Foreign Project Management	Spring 2007
Yanshen Zhu	Object Oriented Simulation	Fall 2006

Yanshen Zhu	Object Oriented Simulation	Fall 2006
Jose Cintron	Knowledge Management	Fall 2006
Alfonso Sarmiento	Non-Linear Control Theory	Fall 2006
Haluk Akin	Ontology Design	Fall 2006
Gus Laurens	MIS and Industrial Marketing	Fall 2005
Gus Laurens	MIS and Industrial Marketing	Summer 2005
Mario Marin	Distributed Simulation and Integration	Summer 2005
Judy Mueller	MIS	Summer 2005
Asisa Musa	UAVs and Usability II	Spring 2005
Serge Sala-Diakanda	Blast and Debris Sensor Fusion	Spring 2005
Tarek Shaalan	Supply Chain Management	Spring 2005
Mario Marin	Distributed Simulation with HLA	Spring 2005
Asisa Musa	UAVs and Usability I	Fall 2004
Oscar Martinez	Cost and Operations	Fall 2004
Ping Chen	High Level Architecture	Fall 2004
Jeffrey Dawson	Usability of Distributed Simulation Environments	Fall 2004
Fakir Noor-Mohideen	System Dynamics	Fall 2004
Vinay Rajendran	Coordinate Measuring Machines	Fall 2004
Hamid Eskandari	Optimization and Genetic Algorithms	Fall 2004
Fred Gruber	Support Vector Machines	Fall 2004
John Pastrana	Supply Chain Management and TALC	Fall 2004
Sergio Quijada	System Dynamics	Fall 2004
Serge Sala-Diakanda	Virtual Range	Fall 2004
Ahmad Rahal	Technology Transfer Frameworks	Summer 2004
Jeffrey Dawson	High Level Architecture	Summer 2004
Amani Saleh	Supply Chain Management	Spring 2004
Jaebok Park	Integration and Software Agents	Spring 2004
Jose Rivera	IT and Organizational Issues	Spring 2004
Hamid Eskandari	C++ Programming	Fall 2003
Magdy Helal	Hybrid Simulation	Fall 2003
Cesar Munoz	Options Theory	Fall 2003
Mayra Carrasquillo	Supply Chain Management	Fall 2002
Omar Thompson	System Dynamics	Summer 2003
Mario Marin	Advanced Artificial Intelligence	Summer 2003
Nabeel Yousef	Artificial Intelligence	Fall 2002
Mario Marin	Artificial Intelligence	Fall 2002
Ankit Shah	Supply Chain Management	Fall 2003
D. Lebo	MIS	Summer 2002
M. Woltman	MIS	Summer 2002

RECOGNITION AND AWARDS

TEACHING and INTERNAL RESEARCH AWARDS

1. Recipient of the **UCF Teaching Incentive Program (TIP) Award** 2006-2007 for outstanding teaching performance.
2. **Outstanding Professor** (Recipient of the Prize RUSS AWARD) College of Engineering and Technology Ohio University by College of Engineering and Technology Review, 1995-1996.
3. **Industrial Engineering and Management Systems (IEMS) Department, UCF, Research Award**, 2006-2007,
4. **Industrial Engineering and Management Systems (IEMS) Department, UCF, Research Award**, 2005-2006,
5. **Industrial Engineering and Management Systems (IEMS) Department, UCF, Research Award**, 2004-2005,
6. **Industrial and Systems Engineering Department Outstanding Professor** by ISE Undergraduate Students Review, 1995-1996.
7. **Industrial and Systems Engineering Department Outstanding Professor** by ISE Undergraduate Students Review, 1994-1995.
8. **Industrial and Systems Engineering Department Outstanding Professor** by ISE Undergraduate Students Review, 1991-1992.

SCHOLARSHIPS AND AWARDS

1. **2018 Faculty Excellence in Mentoring Doctoral Students**, University of Central Florida, April 2, 2018
2. **2018 SAE Forest R. McFarland Award**, May 2018
3. Helal, M., and L. Rabelo (2017). "Synchronizing Discrete Event Simulation Models and System Dynamics Models." Proceedings of the International Symposium on Industrial Engineering and Operations Management (IEOM), Bristol, UK. July 24-25, 2017. **Best track paper winner.** Award of the 1st UK Symposium on Industrial Engineering and Operations Management on July 25 (Tuesday) at Bristol City.
4. **SAE Russell S. Springer Award for SAE paper entitled**, 2015-01-2388, "Modeling Space Operations Systems Using SysML as to Enable Anomaly Detection". This award is given annually by SAE to authors of an outstanding original technical paper which is a distinct contribution to the profession of mobility engineering and for the encouragement of younger members. Given in Detroit, April 4, 2017.
5. Received the ISERC Best Track Paper Award in Engineering Management with the paper "A Framework for Operational Innovation Selection Using Real Option Dynamic Decisions" in May 28, 2014.
6. **Meritorious Son and keys to the City of David (2013):** Hometown and Second City in Importance in the Republic of Panama.
7. **Society of Automotive Engineers (SAE) Forest R. McFarland Award 2013.** Prof. Luis Rabelo received the Forest R. McFarland Award as outstanding session organizer and chair of Aerospace Operations technical sessions in the SAE 2011 Aerotech Congress & Exhibition (Toulouse, France). He has contributed to the success of this conference through manuscript reviews, and active planning, development and dissemination of information in eight Aerospace Operations technical sessions in this international meeting. His long-standing contribution has been accomplished and supported with outstanding enthusiasm since 2003.
8. **Engineers' Council: Distinguished Engineer Educator Award 2012.** National level recognition and prize sponsored by NASA, ASEE, SWE, IEEE, and the Aerospace Industry. National Ceremony at Hollywood, California, 25 February 2012.
9. **NASA KSC Group Achievement Award** to 2nd Lunabotics Mining Competition Team (For exceptional teamwork from across the Agency for the successful orchestration of the Second Annual Lunabotics Mining Competion). 21 September 2011 (by Cheryl Hurst – Kennedy Space Center).
10. **2011 Hispanic Engineer National Achievement Awards Corporation (HENAAC) Education Award winner**. HENAAC Award winners represent highly accomplished STEM professionals who have achieved both academic and professional success in their respective fields. The HENAAC Award highlights and honors these Hispanic success stories and provide this emerging and still largely untapped segment of our great nation's population access to these role models in order to motivate more students to pursue degrees.
11. **NASA Group Achievement Award** to Inaugural Lunabotics Mining Competition Team (For outstanding teamwork for the highly successful Lunabotics Mining Competition, engaging hundreds of students and partners in science, technology, engineering, and math). 30 June 2011 (by Charlie Bolden – NASA Administrator).
12. Recipient of the Scholarship for **Distinguished Researcher of the Government from Catalunya, Spain**, 2009.
13. **Distinguished Alumni of the Technological University of Panama** 2008 (First Time that this yearly award was given).
14. **Fulbright Scholar** 2008-2009.
15. UCF Sabbatical Year 2008-2009 (75%FTE).
16. Recipient of the **UCF Teaching Incentive Program Award 2006-2007** for outstanding teaching performance.

17. Dr. Rabelo received the **Emerald Literati Network Awards for Excellence 2007.** Every year Emerald invites each journal's Editorial Team to nominate what they feel has been that title's Outstanding Paper and up to three Highly Commended Papers from the previous 12 months. The paper "Simulation of range safety for the NASA space shuttle" published in Aircraft Engineering and Aerospace Technology: An International Journal was included among these and has been selected as a Highly Commended Winner at the Emerald Literati Network Awards for Excellence 2007. His paper was selected from 9,000 submissions (worldwide).
18. Dr. Rabelo received the award **"Distinguished Alumni"** given by the Technological University of Panama, November 2006 and **"Favorite Son – Chiriqui State"** by the authorities of the Technological University of Panama in the state of Chiriqui.
19. Dr. Rabelo received the prestigious "**ONE NASA Award**" from NASA due to his research work in NASA Kennedy Space Center and NASA Ames Research Center. He received this award in the June 2006.
20. **Dr. Rabelo has received the 2004 Arch T. Colwell Merit Award from the Society of Automotive Engineers (SAE).** His paper **A Distributed Environment for Analysis of Events Related to Range Safety**, was selected from 2,677 research articles which were published for SAE meetings during 2004. Papers are judged for their value as contributions to existing knowledge of mobility engineering, and primarily with respect to their value as an original contribution to the subject matter.
21. Nominee (with Dr. Phillip Meade by NASA for the 2005 State of Florida's Governor's Award in Modeling & Simulation for the development of the Agents-based Workforce Climate Simulation Models. Other finalists for the Award were Lockheed-Martin Corp. and PEO STRI. Orlando, Florida, November 29, 2006.
22. The article "Disaster and prevention management for the NASA shuttle during lift-off", published in the journal Disaster Prevention and Management: an International Journal, Vol 12 No. 2, was one of only 10 noteworthy articles selected by the Managing Editors for inclusion in August 2006 Monthly Highlights on the Emerald website - please see http://www.emeraldinsight.com/Insight//. Each month Emerald publishes on average 450 new research articles and case studies, and only 10 are featured in the Monthly Highlights.
23. Paper on "A Distributed Environment for Spaceports." It was judged and named by a panel of engineering experts as one of the most outstanding SAE technical papers of 2004.
24. Nominee (with Dr. Jose Sepulveda) by NASA for the 2005 State of Florida's Governor's Award in Modeling & Simulation for the development of NASA Virtual Test Bed. Other finalists for the Award were Lockheed-Martin Corp. and PEO STRI. Orlando, Florida, November 29, 2005.
25. **Distinguished Research of the Industrial Engineering and Management Systems Department**, University of Central Florida, 2004, 2005, 2007.
26. **NASA Fellow,** National Aeronautics and Space Administration, 2002, 2003, 2004, 2005, 2008.
27. **First Prize: Research Presentation Award: Internationalization of Research**, 2002**.**
28. **First Prize: Faculty Coach Advisor, International Competition of Business Plan,** Florida International University, 2002.
29. **Given Stock Options for Outstanding Performance in the Honeywell Technology Center, 1999-2000 (Top 25%).**
30. **Massachusetts Institute of Technology SDM Fellow,** MIT, 2001
31. **Who's Who in Science and Engineering** (Marquis - Selected by Peer Review) 1995, 1996, 1997.
32. **Who's Who** (Strathmore's - Selected by Peer Review) 1996, 1997.
33. Award "**Distinguished Alumni**" given by the Technological University of Panama, September 1995.
34. Stocker ENT funds and Ohio Research Office, Ohio University, to attend workshops and organize conferences during 1991, 1992, 1993, 1994, and 1995 ($10,000.00).
35. NSF and GERMAN Operations Research Society, to attend US and Germany Joint OR Conference in Hagen, Germany, 1992 ($900.00).
36. Grant for **Neural Networks Research and Process Control**, Summer 1990 ($4,000), from the State of Illinois
37. SME Gift Grant to attend Neural Networks and Manufacturing Clinic in Detroit, 1991 ($700.00).
38. Dean of the School of Mines and Metallurgy Grant (UMR) to attend Systematic Course and Conference in Neural Networks at Boston University , 1991 ($750.00).
39. Grants-in-Aid of Research Award from **SIGMA XI, The Scientific Research Society** to further research in Neural Networks and FMS, December 1989 ($500).
40. University Faculty Grant to attend the 1990 National Communications Forum by NEC Information Industry Faculty Selection Committee ($1,250).
41. Several UMR and industry grants (AT&T and IBM) to attend various short courses, seminars and conferences, 1988 - 1990 ($3,000).
42. Grant for Summer Proposal Preparation, UMR Associate Dean for Research and Graduate Affairs, May 1990 - August 1990 ($5,000).
43. Honor Scholarship for graduate studies in Engineering Management at the University of Missouri-Rolla **"Ricardo Galindo Quelquejeu"** by Panamanian Society of Executives, 1987 ($5,000).
44. Honor Scholarship for undergraduate studies in Engineering at the Technological University of Panama, 1978 - 1983 ($7,000).
45. **Gold Medal "Guillermo Andreve"** for educational achievements in 1978 (given to 45 students - from 12,000).

INTERNATIONAL MEDIA ATTENTION (2002 to 2017)

1. Today at UCF (Hispanic Month 2016) - http://today.ucf.edu/ancient-civilizations-artificial-intelligence-simulation-just-routine-day-ucf-professor/

2. Telemundo – Miami, Florida, USA - "Vida Simulada" Special for Telemundo (Latinoamerica and USA) acerca de las Investigaciones del Dr. Rabelo en Simulacion. http://www.telemundo51.com/videos/Vida-simulada_TLMD---Miami-346142082.html.

3. Canales de TV de Costa Rica y presentaciones:
    a. http://semanariouniversidad.ucr.cr/etiqueta/luis-rabelo/
    b. http://www.elpais.cr/2015/07/24/esta-semana-en-la-universidad-de-costa-rica-del-25-de-julio-al-1-de-agosto-de-2015/
    c. http://www.ucr.ac.cr/noticias/2015/10/19/ninas-y-ninos-se-adentran-en-el-mundo-de-la-tecnologia-y-la-robotica.html

4. Main newspaper in Manizales, Colombia: http://www.lapatria.com/economia/el-liderazgo-no-se-ensena-con-power-point-luis-rabelo-138036

5. Universidad del Desarrollo (Santiago, Chile) Noticias - http://ingenieria.udd.cl/noticias/2012/11/seminario-%E2%80%9Cexperiencias-de-simulacion-en-la-nasa%E2%80%9D/

6. **Canal 10 del Sistema Chiapaneco de Radio Televisión y Cinematografía** – Reportaje acerca del Dr. Luis Rabelo – Noviembre 2012.

7. Newspaper UCF Today (2011) - http://today.ucf.edu/ucfs-rabelo-born-to-be-an-engineer-honored-nationally/

8. Dario Tribuna de Chiapas – http://www.diariolatribunadechiapas.com.mx/index.php?option=com_content&task=view&id=16703

9. The major newspaper in the Republic of Panama, **La Prensa**: "Dos historias de superación", February 8, 2010. http://www.prensa.com/hoy/vivir/2085063.asp

10. The major newspaper in Chile, **El Mercurio**: "Gran convocatoria en conferencia de Ripley y Universidad Diego Portales", November 29, 2009. http://diario.elmercurio.cl/detalle/index.asp?id={2c606e66-6726-4b37-a629-7e9cc2417873}

11. Epicentro Chiapas, Mexico, Web News, about Potential Academic Agreement between UCF and UNACH, April 8, 2009. http://epicentrochiapas.com/index.php?option=com_content&task=view&id=14547&Itemid=28 and http://issuu.com/chiapashoy/docs/estado080409

12. Central Florida Future (Newspaper): "UCF professors head overseas for Fulbright", February 2009.

13. UCF News Room, Florida Central: "UCF Fulbright Scholars to Study Teacher Education in Kenya, Near-Earth Asteroids and More", November 2008. http://news.ucf.edu/UCFnews/index?page=article&id=002400417681c879011d86dcaaa7007c9b

14. Panama America, Buscando Agua en la Luna, 2008: http://www.pa-digital.com.pa/periodico/buscador/resultado.php?story_id=704503&texto=centauro#axzz0piiuMUrW

15. Newspaper in Mexico "El Heraldo de Chiapas", about work as Intern in NASA and NASA Fellow, November 16, 2008.

16. The major newspaper in Panama, **La Prensa**, Reception in US Embassy for Astronaut Scott Parayznski, 2008. http://mensual.prensa.com/mensual/contenido/2008/10/08/hoy/sociales.shtml

17. Newspaper in Panama "Panama America", about the Phoenix Project, May 2008. http://www.padigital.com.pa/periodico/buscador/resultado.php?story_id=623145&page=2&texto=electromec%E1nica#axzz0pezeh6Zx

18. Mundo Social (Magazine in Panama): Interview with Dr. Rabelo, Review of "Science in NASA/Exploration."

19. El Tecnológico, Newspaper of the Universidad Tecnológica de Panamá, Edición: Octubre de 2006, "Reconocimiento a personalidades de la UTP en Chiriqui," October 2006.

20. TV 365, **Icelandic** Largest TV Network, Interview with Dr. Rabelo, October 2006, "International Trade Opportunities."

21. Morgunbladid (**Icelandic** Largest Newspaper), Interview with Dr. Rabelo, September 2006, "Expansion of the Panama Canal." http://www.mbl.is/mm/gagnasafn/grein.html?grein_id=1095881

22. La Prensa (Largest Newspaper in the Republic of Panama): Interview with Dr. Rabelo, September 2006, "With the Mind in the Universe." http://mensual.prensa.com/mensual/contenido/2006/09/02/hoy/panorama/718915.html

23. La Prensa (Largest Newspaper in the Republic of Panama): Interview with Dr. Rabelo, May 2006, "Expansion of the Panama Canal."

24. La Prensa (Largest Newspaper in the Republic of Panama): Interview with Dr. Rabelo, April 2006, "Globalization."

25. Mundo Social (Magazine in Panama): Interview with Dr. Rabelo, February 2006, "Science in NASA/Exploration."

26. SAE, Detroit, Michigan, USA, http://www.sae.org/servlets/pressRoom?OBJECT_TYPE=PressReleases&PAGE=showRelease&RELEASE_ID=403

27. El Tecnológico, Newspaper of the Universidad Tecnológica de Panamá, Edición: Agosto de 2006, "Luis Rabelo, un exalumno distinguido," August 2005.

28. Telefutura/Univision (Largest Hispanic TV Network in North America (USA, Mexico, Canada)): Program about Universities and NASA and Interview with Dr. Rabelo, August 2005.

29. El Comercio (Most important newspaper in the Republic of Peru): Announcement of Dr. Rabelo, October 2004.

30. La Prensa (Largest Newspaper in the Republic of Panama): (Semanario Ellas) Interview with Dr. Rabelo, October 2002.