
José A. Faria, Ph.D., PMP, A.M.ASCE

Research Interests Operations Research and Management Science, Project Management, Multi-objective Optimization, Genetic Algorithms, Object Oriented Database, Integer Programming, Computer Algorithms, Information Technology.

Dissertation: Multiobjective Optimization Models and Solution Methods for Planning Land Development using Minimum Spanning Trees, Lagrangian Relaxation and Decomposition Techniques.

Advisor: Dr. Steve Gabriel
University of Maryland Civil and Environmental Engineering
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College Park, MD 20742
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Education

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| 2005 | ▪ Ph.D. Civil Engineering with Specialization in Operations Research, University of Maryland College Park, MD |
| 2001 | ▪ M.S. Systems Engineering, University of Maryland College Park, MD |
| 1990 | ▪ B.S. Industrial Engineering, Universidad Católica Andrés Bello Caracas, Venezuela |

Certifications

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| 2005 | ▪ PMP: Project Management Professional from the Project Management Institute |
| | ▪ PMP 286.458 |

Professional Affiliations

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| 1990 | ▪ C.I.V.: Colegio de Ingenieros de Venezuela (Professional Engineer) |
| | ▪ C.I.V. 82.568 |

Work Experience

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| 2006 – Present | 2006 – Assistant Professor |
| Department of Construction Management | ▪ Course: Construction Cost Analysis & Control (Summer and Fall 2006) |
| College of Engineering and Computing | |
| Florida International University | |
| Miami, Florida | |
| 2001 – Present | 2006 – Adjunct Professor |
| Civil and Environmental Engineering, and Institute for Systems Research | ▪ Course: Life Cycle Cost Estimation |
| University of Maryland | Teaching tools and techniques to create a successful cost estimate |
| College Park, MD | 2004 – Lecturer |
| USA | ▪ Course: Life Cycle Cost Estimation |
| | Teaching tools and techniques to create a successful cost estimate |
| | ▪ Course: Project Performance Measurements |
| | Introductory course to operations research applied to project management |
| | 2001 Faculty Research Assistant |
| | Support principal investigator in research activities |
| | <u>Research Projects</u> |
| | ▪ Decomposition techniques for large optimization problems |
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	<ul style="list-style-type: none"> ▪ Smart Growth, a Multi-objective approach for land development. ▪ Optimization of portfolio selection under uncertainty
2005 Kogod School of Business American University Washington D.C. 20016-8044 USA	Fall 2005 –Adjunct Assistant Professor <ul style="list-style-type: none"> ▪ Course: Quantitative Methods for IT Management ▪ Introductory course to operations research and project management applied to information technology
2001 – 2004 Civil and Environmental Engineering, and Institute for Systems Research University of Maryland College Park, MD USA	2001 – 2004 Teaching Assistant <ul style="list-style-type: none"> ▪ Multi-objective Optimization ▪ Decision Analysis for Engineers. ▪ Life Cycle Cost Estimation ▪ Project Performance Measurements
Summer 2001, 2002 U.S. Department of Energy Washington D.C.	2001 and 2002 – Research Assistant <ul style="list-style-type: none"> ▪ Accelerating Convergence in NEMS. FORTRAN subroutine analysis, convergence criteria evaluation, parameter testing and documentation.
1993 – 2000 AMBEC Owings Mills, MD USA	1995-2000 Process Engineer / Project Manager <ul style="list-style-type: none"> ▪ Design, integration, fabrication supervision, programming, installation and commissioning of pasteurization systems for beverages equipment in the United States and Latin America. Project designer using AutoCAD. ▪ PLC programming, Graphic User Interface design and system integration. 1994 – 1995 Latin America Region Sales Manager <ul style="list-style-type: none"> ▪ Established representation relationships with industry partners. 1993 – 1994 Systems Engineer <ul style="list-style-type: none"> ▪ Design of conveyor systems and complete bottling line layouts.
1990 – 1993 Pepsi Cola Caracas, Venezuela	Project Engineer <ul style="list-style-type: none"> ▪ Responsible to maintain accurate AutoCAD drawings of all 19 plants. ▪ Mechanical design for piping systems and new production line design.
Publications	
	<ul style="list-style-type: none"> ▪ S.A. Gabriel, J.F. Ordóñez, and J.A. Faria. “Contingency Planning in Project Selection Using Multiobjective Optimization and Chance Constraints,” August 2005, ASCE Journal of Infrastructure Systems. ▪ S. A. Gabriel, J.A. Faria, G.E. Moglen 2005. A Multi-objective Optimization Approach to Smart Growth in Land Development. Socio-Economic Planning Sciences. ▪ Moglen, G.E., S.A. Gabriel and J.A. Faria. A Framework for Quantitative Smart Growth in Land Development. Journal of The American Water Resources Association, Vol. 39, No. 4, August 2003
Work in Progress	
	<ul style="list-style-type: none"> ▪ Lagrangian Relaxation and Column Generation Techniques Applied to a Land Development Problem ▪ Benders Decomposition and Column Generation Techniques Applied to a Quadratic Mixed Integer Programming Problem ▪ Embedded Minimum Spanning Tree as a Compactness Measure in a Multiobjective Land Development Problem ▪ Alternative Formulation for the Crashing Problem in Project Management

Referee Experience	
2005 - Present	▪ Network and Spatial Economics – Springer
Reviewer	▪ ASCE Journal of Infrastructure Systems
Conferences	
2002 - 2004	▪ INFORMS 2005 – San Francisco, California. Session Chair of : “Applications to Land Development”. Talks: ▪ INFORMS 2004 - Denver, Colorado. Minimum Spanning Trees and Multi-objective Optimization for Smart Growth Land Development Planning. ▪ INFORMS 2002 - San Jose, California. Smart Growth as a Multi-objective optimization problem.
Workshops Taken	
2006	▪ Maryland Real Estate course for salesperson
2005	▪ Teaching Management Science Workshop. Sponsored by INFORMS.
2003	▪ Maryland Smart Growth Leadership Program. Sponsored by the National Center for Smart Growth Research and Education. University of Maryland.
Scholarship Awards	
2005	▪ INFORMS – Institute for the Operations Research and the Management Sciences
2003	▪ CMAA - Construction Management Association of America Mid-Atlantic
Memberships	
	▪ <u>Omega Rho</u> : International Honor Society – INFORMS
	▪ <u>INFORMS</u> : Institute for Operations Research and the Management Sciences
	▪ <u>PMI</u> : Project Management Institute
	▪ <u>INCOSE</u> : International Council on Systems Engineering
	▪ <u>ASCE</u> : Associate Member of American Society of Civil Engineers
	▪ <u>AACE International</u> : Association for the Advancement of Cost Engineering
Software Experience	
	▪ @Risk for Projects: Simulation tool added to MS Project
	▪ @Risk: Statistical tool for decision analysis and simulation
	▪ AutoCAD - Computer Assisted Drawing software.
	▪ Expert Choice – Decision analysis software using the Analytical Hierarchy Process.
	▪ Fortran programming
	▪ Frontline’s Solver for EXCEL – Mathematical Add-in to solve optimization problems
	▪ LINDO/LINGO – Mathematical Programming Language for optimization modeling
	▪ MATLAB – A high level technical computing language
	▪ Microsoft .NET framework programming in Visual Basic
	▪ Microsoft Access – General database application and programming software.
	▪ Microsoft Project – Project management tool software.
	▪ MOSEL - A Mathematical Programming Language for optimization modeling
	▪ MPL – Mathematical Programming Language for optimization modeling
	▪ RSLogix500 - Industrial SLC ladder logic software for industrial controls.
	▪ VisualBasic. NET – Programming language.
	▪ Wonderware - Graphical user interface design software.
	▪ WBS Pro – Software to create work breakdown structures
Languages	
	▪ <u>Spanish</u> : Fluent - Native language
	▪ <u>English</u> : Fluent - Second language