

Francisco Maldonado-Fortunet, Ph.D.

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Education

Ph.D., Construction Engineering and Management Program, School of Civil and Environmental Engineering, Georgia Institute of Technology, Atlanta, GA, August 2002.

M.S. Civil Engineering, Construction Engineering and Management Program, School of Civil and Environmental Engineering, Georgia Institute of Technology, Atlanta, GA, September 1994.

B.S. Civil Engineering, University of Puerto Rico, Mayagüez Campus, Mayagüez, PR, May 1993.

Word Experience

University of Puerto Rico, Mayagüez Campus

August 2002 to present

Assistant Professor (2002-2005) and Associate Professor (2005 to present) – Teaching courses including: Construction Engineering I; Construction Engineering II; Sustainable Design and Construction; Sustainable Infrastructure for Community Development; Planning and Scheduling of Construction Projects; Construction Methods and Equipment; Integrated Civil Engineering Project; and Civil Engineering Seminar; and Contracting in the Construction Industry. Ex-President of the Project Management Committee that created the first Project Management Certificate in the Mayagüez Campus of the University of Puerto Rico.

Researcher (recent projects) – Principal Investigator (PI) of the project titled Integrated Process to Stimulate Energy Efficiency Action in Puerto Rico from the US Department of Energy with an award of \$382,265. PI of the project titled Energy Audits and Metrics for the Improvement of the Process to Produce Coffee from the Puerto Rico Department of Agriculture with an award of \$79,280. Co-Principal investigator in applied scientific research in solar technology for housing to compete in the Solar Decathlon 2005, sponsored by the US Department of Energy.

Community Affairs Coordinator, College of Engineering

October 2006 to December 2009

Provide support for interdisciplinary service learning projects in the college of engineering, disseminate the results of participative action research projects in recognize national and international conferences and forums, coordinate the UPRM initiatives for the Engineering in Community Service (EPICS) program and get external funding for community service projects.

Institutional Research and Planning Office, UPR, Mayagüez

April 2002 to December 2009

Construction Management Consultant – Project site visits for the evaluation of change orders, claims and progress reports. Provide advise in decision making process for project completion within time and under budget by participating in periodic project meetings and providing full support to the Planning Office Manager.

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Nature's Power Tech Corp.

May 2006 to August 2010

Executive Vice-President – Principal in a leading consulting firm specialized in sustainable design and energy efficiency for institutional, commercial, industrial and residential buildings. Consulting services in project integration, project management and sustainable design and construction.

Perez Berenguer & Associates

September 2002 to 2003

Professional Consultant – Conducting evaluation of cost estimates and inspecting facilities and building for federally funded Housing and Urban Development (HUD) programs.

University of Puerto Rico, Mayagüez Campus

August 1999 to 2002

Instructor – Teaching courses including: Construction Management I & II; Construction Methods and Equipment; Integrated Civil Engineering Project; Civil Engineering Seminar; and Structural Analysis I. Teaching up to three sections of classes with more than 25 undergraduate students in fundamental aspects of construction engineering and management.

Center of Technology Transfer in Transportation

August 1999 to present

Seminar Lecturer – Preparing and conducting seminars in Construction Engineering and Management, Project Inspection, Claims and Dispute Resolution, Development of Construction Project Specifications for public and private organizations in Puerto Rico and for the Public Works Authority of the U.S. Virgin Islands.

Instituto de Evaluadores de Puerto Rico

February 2001 and January 2002

Seminar Lecturer – *Seminars in Construction Engineering and Management for Appraisals.* Preparing and conducting a seminar in construction project organization, cost estimating, and constructions permits and regulations.

Puerto Rico Infrastructure Financing Authority

October to December 2000

Professional Consultant – Conducting evaluation of contractors and overall construction program for water and sewage systems' projects located in the west region.

Real State Education Center, Inc.

September 2000

Seminar Lecturer – *Seminars in Construction Contracting.* Preparing and conducting a seminar in construction for the Real Estate Education Center.

Georgia Institute of Technology, Atlanta, GA

September 1993 to June 1999

Graduate Research Assistant. Conducting research supervised by Dr. Jorge A. Vanegas in the following areas: Sustainable Design and Construction; Cost-Effective Engineering; and Construction and Demolition Waste.

Graduate Teaching Assistant. Teaching and grading in the following courses: Design/Construction Integration of Building Systems; Construction Planning and Estimating.

Banco Popular of Puerto Rico, San Juan, PR

January 1993 to July 1993

Project Manager. Worked at the Construction and Real State Division of Banco Popular administering construction contracts, from contractor selection to site supervision and inspection.

Star Kist Caribe, Mayagüez, PR

December 1991 and Summer 1992

Site Superintendent and Inspector. Worked at the Construction and Maintenance Department of Star Kist Caribe managing construction crews, coordinating sub-contractors, and inspecting construction work.

Unpublished Research Report

Maldonado-Fortunet, F. (1994). *Construction and Demolition Waste in the Atlanta Region.* Georgia Institute of Technology, Atlanta, GA. Research report presented to the academic faculty at the School of Civil and Environmental Engineering at the Georgia Institute of Technology, Atlanta, GA in partial fulfillment of the requirements for the Master in Science in Civil Engineering degree.

Selected Conference Presentations and Publications

Maldonado-Fortunet, F., Seijo-Maldonado, L., and Colucci, B. (2006). "The Application of Interdisciplinary Engineering Education in Community Service." *The International Conference in Engineering Education 2006*, July 2006, San Juan, Puerto Rico.

Maldonado-Fortunet, F., and Gonzalez-Quevedo, A., (2005). "Research Methodology to Define Sustainability Criteria for Civil Infrastructure Systems." *Third LACCEI International Latin American and Caribbean Conference for Engineering and Technology (LACCET'2005) "Advances in Engineering and Technology: A Global Perspective"*, 8-10 June 2005, Cartagena de Indias, Colombia.

Maldonado-Fortunet, F., and Gonzalez-Quevedo, A., (2004). "Criterios de Desarrollo Sustentable para Evaluar Proyectos de Transporte." *Proceedings of the VI Congress in Transportation Engineering*, Zaragoza, España.

Maldonado-Fortunet, F., Gonzalez-Quevedo, A., and Vanegas, J. A. (2002). "Limitations of Environmental Impact Assessment for a Sustainable Highway Development." *Proceedings of the XII Pan-American Congress in Transportation Engineering*, Quito, Ecuador.

Maldonado-Fortunet, F., Hastak, M., and Vanegas, J. A. (1995). "Conceptual Framework for Sustainable Quality Management." *Proceedings of the 1995 Annual Conference of the Canadian Society for Civil Engineering*, CSCE, Montreal, Quebec, Canada, vol. 3, pp. 389-398.

Other Publications

Vanegas, J. A., Hastak, M., Pearce, A. R., Maldonado, F. (1998). *A Framework and Practices for Cost-effective Engineering in Capital Projects in the A/E/C Industry.* Georgia Institute of Technology. A report to the Construction Industry Institute (CII) at Austin, Texas.