

# Jorge M. Villa-Girón

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<b>Objective</b>	Obtain a full-time position in the Electrical Engineering Field to apply and improve skills developed through my education increasing my professional abilities.
<b>Education</b>	<b>PhD in Electrical Engineering, Michigan State University</b> All But Dissertation, Major: Electromagnetic Theory. <b>MS in Electrical Engineering, University of Puerto Rico, Mayagüez Campus</b> Major: Digital Signal Processing. Thesis: "Cirrus Clouds Ice Crystal Study Using 33 and 95 GHz Radar" <b>University of Puerto Rico, Mayagüez Campus</b> <b>Laboratory Instructor Training</b> , Center for Development Professional. <b>BS in Electronic Engineering, Universidad Del Valle, Cali – Colombia</b> Major: Control Systems. Thesis: "A Fuzzy Control Structure Applied to Multivariable Control"
Expected 12/2007 12/2002  7/2000  5/2000	
<b>Important Courses</b>	Advanced Computational Methods in Electromagnetic and Acoustics, Advanced Electromagnetic Theory, Antenna Theory, Microwave Systems, Microwave Remote Sensing, Introduction to Remote Sensors, Fuzzy Control, Design of Digital Signal Processing Systems, Stochastic Processes, Adaptive Filter Theory.
<b>Professional Experience</b>	<b>Research Assistant</b> at the Computational Electromagnetic Group: Design and simulation of novel electromagnetic components (antennas, waveguides and microwave components) by developing customized computational electromagnetic codes ( <i>FEM, MoM, FE-BI, FMM</i> ). Development and implementation of high frequencies theories (UTD) for several antenna applications. <b>Teaching Assistant</b> at Michigan State University Advanced Electromagnetic Laboratory; Basic Electromagnetic Laboratory Advanced Senior Design Laboratory; Basic Electric Circuits Laboratory <b>Research Assistant</b> at University of Puerto Rico Mayaguez Campus. CLOUD Microwave Measurements of Atmospheric Events (CLIMMATE) Laboratory: Reflectivity radar data and radiosonde data analysis. Implementation of algorithms to extract different products such as particle size distribution within the cirrus clouds, atmospheric attenuation and validation with real data. <b>Laboratory Instructor</b> Electronic Laboratory. University of Puerto Rico Mayaguez Campus
8/2003 – 12/2007  8/2004 - 8/2006  1/2001 - 12/2002  8/2000 – 12/2000	
<b>Programming Skills</b>	Software Development (Fortran, C, Assembler) , MatLab, PSpice, HP-ADS, TI-DSP, IDL, Sonnet, SKYMesh, Mathematica
<b>Languages</b>	<b>Spanish</b> , Native. <b>English</b> , Fluent.
<b>Awards</b>	PhD Fellowship at Michigan State University, Honor Roll at the University of Puerto Rico. Three times Distinguished Student Scholarship winner at the Universidad del Valle, Cali - Colombia
<b>Activities</b>	IEEE Member, Tau Beta Pi Member, SHPE Member
<b>Conferences and Publications</b>	<b>"Hybrid Finite Element Analysis of Non-Resonant Antennas"</b> EMTS 2007, Ottawa Canada <b>"Multi-core Processors and CEM Codes: Parallelization with OpenMP"</b> URSI 2007, Ottawa Canada <b>"Generalized finite element method for analyzing scattering from non-Lipschitzian domains"</b> URSI 2006, Albuquerque New Mexico <b>"Asymptotic Near-to-Far-Zone Transformation for Conformal Antennas Embedded in an Elliptic Cylinder"</b> URSI 2006, Albuquerque New Mexico <b>"Performance of Scanning Millimeter-Wave Radar in a Tropical Environment"</b> IGARSS 2002, Toronto Canada <b>"Modeling, Simulation and Comparison Study of Cirrus Clouds' Ice Crystals"</b> SPIE 2002, Crete Greece <b>"A Fuzzy Control Structure Applied to Multivariable Control"</b> IFAC International Federation of Automatic Control, 11/2000 Cali-Colombia
<b>References</b>	Please do not hesitate to ask if needed.