

LINA MARCELA RAMÍREZ ARBELÁEZ

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EXECUTIVE SUMMARY

Skilled engineering professional with 5+ years of experience in power systems, specifically in power system operations, power markets and voltage stability analysis. Excellent capacity for working under pressure and with minimal supervision, outstanding interpersonal skills, leadership ability, and perseverance for getting the goals in the best terms.

CORE COMPETENCIES

Power system operations	Electricity Market	Voltage stability
Analytical studies of power systems PSS/E- DlgSILENT	Data Acquisition PI System	Spectrum Power SCADA and Energy Management Systems
Power Market Modelling Plexos	Power system simulations RTDS Electrical/Lighting Design	Transient studies- ATP-EMTP
AutoCAD	Microsoft Office including Access and Visio	Electrical/Lighting Design

PROFESSIONAL EXPERIENCE

Iowa State University Ames, Iowa United States Aug 2012-Present

Research Assistant:

- Develop mathematical algorithms to evaluate voltage stability across areas using synchrophasor measurement units.
- Collect and analyze data, summarize project results, and prepared progress reports and presentations.
- Prepare journal and conference articles, reports, and presentations.
- Develop solution to problems of the Electric Power Research Center at Iowa State University.

XM-Colombian's ISO Medellin, Colombia Jan 2010 to July 2012

Operation Analyst:

- Coordinating and implementing actions to balance and maintain reliable.
- Operation of the bulk power system and the energy market.
- Monitoring and analyzing information.
- Maintaining daily logs with complete documentation.
- Preparing reports as required.

PC Mejía S.A Medellín, Colombia Medellín, Colombia.

May 2007 - Dec 2009

Lighting/ Electrical Design Engineer:

- Performing initial and detail lighting designs for commercial and industrial facilities.
- Designing electrical schematics and substations physical drawings for LV and MV projects using international standards and according with the customer specifications.
- Providing support troubleshooting during installation and commissioning.

ISA Interconexión Eléctrica S.A. E.S.P Medellín, Colombia

Jul 2006 – Jan 2007

Internship:

- Performing a technical report analyzing the principal components of a Back to Back HVDC substation and their principal requirements.
- Developing technical specifications for a Back to Back HVDC substation to interconnect the Power Systems of Peru and Bolivia.

EDUCATION

Doctor of Philosophy - Electrical Engineering

December 2015

Iowa State University, Ames, United States.

Dissertation Title: Online Voltage Stability Indicator across Areas using Phasor Measurement Units.

Master of Engineering Administration

March 2015

Universidad Nacional de Colombia, Medellín, Colombia.

Dissertation Title: Evaluation of the expansion signals in the Colombian electric Market since the point of view of the investor.

Energy Management Graduate Certificate

June 2011

Universidad Pontificia Bolivariana, Medellín, Colombia.

Energy Markets Graduate Certificate

December 2010

Universidad Nacional de Colombia, Medellín, Colombia.

B.S in Electrical Engineering

September 2007

Universidad Nacional de Colombia, Medellín, Colombia.