

Yaneth Cristina Correa-Martinez, M.Sc., Ph.D.

Education

- Ph.D., Engineering Management and Systems Engineering
Old Dominion University, Norfolk, VA Aug. 2018
GPA 3.98/4.0
Dissertation: *A Representation of Tactical and Strategic Precursors of Supply Network Resilience Using Simulation-Based Experiments*
Advisor: Mamadou Seck, Assistant Professor, Old Dominion University
- Master of Sciences: Systems Engineering
National University of Colombia, Colombia Dec. 2002
GPA 4.1/5.0
Thesis: *Valuation of an Investment Project in the Colombian Electricity Market using Real Options and Stochastic Control Theory*
- BS Engineering
GPA 4.3/5.0
National University of Colombia, Colombia 1995 – 2000
Thesis: *A Portfolio Theory-Based Approach to Risk Management in the Colombian Electricity Market*

Teaching and Academic Experience

- Assistant Professor of Supply Chain Management/POM, Fall 2016-Present
Hasan School of Business, Colorado State University-Pueblo, Pueblo, CO
Courses: Online Operations Management for MBAs; Operations Management; Operations Management for MBAs; Project Management; Advanced Statistics; Inferential Statistics; Graduate Level Biostatistics for the Nursing Department.
- Visiting Assistant Professor of Supply Chain Management/POM, Fall 2015 - Summer 2016
Hasan School of Business, Colorado State University-Pueblo, Pueblo, CO
Courses: Project Management, obtained 4.4 and 4.1 in students' evaluations; Advanced Statistics, obtained 3.7 in students' evaluations; Inferential Statistics, ongoing.
- Adjunct, Engineering Department, Colorado State University-Pueblo, Pueblo, CO Spring 2015
Course: Engineering Economy, obtained 4.0 in students' evaluation.
- Instructor, EMSE Department, Old Dominion University, Norfolk, VA Spring – Fall 2006
Course: Engineering Economics, no students' evaluation available.
- Guest Scholar, ICPSR-ISR, University of Michigan, Ann Arbor, MI Summer 2005
I attended the Inter-University Consortium for Political and Social Research -ICPSR Summer Program in Quantitative Methods of Social Research. In a one-month period, an intensive, comprehensive, integrated program of studies in research design, statistics, data analysis, and research methodology applied to social sciences is covered. My research project for the program was oriented to the quantitative analysis of the impact that different learning attributes (e.g. learning rates) can have on the dynamics of individuals' opinion in groups.

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- Research Assistant, EMSE Department, Old Dominion University, Norfolk, VA 2002 to 2007
Projects:
 - Scheduling Policies for the dynamic assembly flow shop scheduling problem considering earliness and tardiness; the proposal for this project came up as the result of a team project for an Optimization course I took, and the funds were awarded by the ODU's Research Foundation. Contract 99200. Amt.: \$11,000
 - Systems of Systems Center of Excellence; in this project I was the co-lead research assistant for the modeling team who developed a simulation product for DHS. Funded by the Department of Homeland Security through NAVAIR, grant # 763641. Amt.: \$848,736 A follow up for further extensions of the model and the methodology was granted through the MITRE Corporation funded by the Department of Homeland Security, grant # 247591. Amt.: \$228,580
 - A Systems of Systems Engineering (SoSE) Analysis of Integrated Port Security for the Virginia Port Authority, I collaborated with the team that developed a methodology to analyze the security challenges the Virginia Port Authority faces and to provide with guidelines for designing and implementing a Port Security System, using a SoSE approach.
 - Instructor, Computer Sciences Department, University of Antioquia, Colombia Spring 2002
Course: Industrial Simulation, no students' evaluation available.
 - Instructor, Financial Engineering Department, University of Medellin, Colombia Spring 2002
Courses: Theory of Finance, Project Valuation; no students' evaluation available.
 - Research Assistant, Decision Sciences Dept., National Univ. of Colombia, Colombia 2001 – 2002
 - *Project:* Investment Valuation in Electricity Markets using Real Options, Department of Decision Sciences
 - Research Assistant, Center for Economic Research, Univ. of Antioquia, Colombia 1998 – 1999
Project: Price Policies on Contingencies in Electricity Generation.

Intellectual and Scholarly Work

Refereed Journal Publications

- **Correa-Martinez, Y. C., & Seck, M.** (2022). A generic representation of supply network resilience using simulation-based experimentation. *Journal of Simulation*, 1-34.
- Bhattarai, S., **Correa-Martinez, Y.**, & Bedoya-Valencia, L. (2022). A multi-objective home healthcare routing problem. *International Journal of Healthcare Management*, 1-15.

Manuscripts in Progress

- **Correa-Martinez, Y.C.** (2022). Embedding Societal Impact in the Undergraduate Curriculum: An Exploratory Study Applied to the Project Management Course. *To be submitted to the Journal of Education for Business. Currently with the Editor.*
- **Correa-Martinez, Y. C.**, Bedoya-Valencia, L., Correa-Espinal, A. (2022). The Effects of Product Structure in The Performance of a Supply Chain in the Presence of Disruptions when using Single Sourcing. *To be submitted to the Journal of Purchasing and Supply Management.*

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Conference Presentations

- **Correa-Martinez, Y.**, Teller, J., Sparks, K. COOP Operations Models for Hemp Based Geotextiles. Presented at the 32nd Production and Operations Management Society (POMS) Annual Conference. April 21 - 25 2021, Online
- Riveros-Gonzales, A., Bedoya-Valencia, L., **Correa-Martinez, Y.**, & Farrer, R. (2021). Application of the Taguchi Design Method to Analyze the Production Process of Cellulose Acetate Fibers by using Electrospinning. In IIE Annual Conference Proceedings, 1058-1063.
- Foechterle, K, **Correa-Martinez, Y.** Navigating Obstructive Sleep Apnea. Presented at the Sleep Research Society Annual Conference Sleep 2021. June 10th - June 13th, 2021, Online
- **Correa-Martinez, Y.**, Bhattarai, S., Bedoya-Valencia, L. Heterogeneous Home Healthcare Routing Problem with Dynamic Patient's Demand of Simultaneously Multiple Nurses. Presented at the 31st Production and Operations Management Society (POMS) Annual Conference. April 30 - May 2021, Online
- Bhattarai, S., **Correa-Martinez, Y.**, Wollega, E., Bedoya-Valencia, L. Building a Prediction Model for Forecasting Adult Care Facility Quarterly Patient Demand. In Proceedings of the 5th NA International Conference on Industrial Engineering and Operations Management Detroit, Michigan, USA, August 10 - 14, 2020 © IEOM Society International.
- Bedoya-Valencia, L., Riveros-Gonzales, A., **Correa-Martinez, Y.**, Farrer, R. Experimentation on Removal of Heavy Metals From Water by Using Single and Combined Filtration Systems With Hemp Based Fibers and Zeolites. Presented at the 2020 Institute of Cannabis Research –ICR Conference. August 11 - 14, Pueblo, CO
- **Correa-Martinez, Y.**, Willis, G., Bedoya-Valencia, L. Exploratory Pilot Assessment of the Sustainability of the Hemp Supply Chain in the State of Colorado. Presented at the 2019 Institute of Cannabis Research –ICR Conference. March 23 - 25, Pueblo, CO
- Willis, G., **Correa-Martinez, Y.** A Holistic Framework to Assess the Sustainability of the Hemp Industry in Colorado. Presented at the 2019 Institute of Cannabis Research –ICR Conference. March 23 - 25, Pueblo, CO
- Mendel, G., Farrer, R., **Correa-Martinez, Y.** Bedoya-Valencia, L. Extraction of Biopolymers from Hemp Biomass. Presented at the 2019 Institute of Cannabis Research –ICR Conference. March 23 - 25, Pueblo, CO
- Bedoya-Valencia, L., **Correa-Martinez, Y.** Palacio, K.S., Guzman Acuña, L., Universidad del Norte. (2019). Designing Blended Content Modules as Support to Traditional Face-to-Face Delivery: An Application to Data Analysis, Inferential Statistics, and Simulation Experiments Courses. Presented at the ASEE Annual Conference and Exposition. June 15 - 19, Tampa, FL
- **Correa-Martinez, Y.** & Bedoya-Valencia, L (2017, Sept). Designing Blended Content Modules as Support to Face-to-Face Delivery: An Application to Simulation Experiments and Inferential Statistics Courses. Presented at the *ASEE Rocky Mountain Section Conference*. Provo, UT.
- **Correa, Y.**, & Seck, M. (2016). An Operational Formulation of the Supply Network Resilience Concept using Simulation Based Experiments. Presented at the *28th Production and Operations Management Society (POMS) Annual Conference*. May 5 - 8, 2017 Seattle, WA
- Bedoya-Valencia, L. & **Correa, Y.** (2016, June). Designing Blended Content Modules as Support to Traditional Face-to-Face Delivery: An application to a Simulation Experiments Course. Presented at the *ASEE Annual Conference and Exposition*. New Orleans, LA.
- **Correa, Y.**, DeCuir, E. & Farmer, S. (2015, March). Toward an integrative approach to graduate

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student access and success. In *Higher Learning Commission Annual Conference: Collection of Papers*. Chicago, IL. Retrieved from <http://cop.hlcommission.org/Student-Success/correa15.html>

- Bedoya-Valencia, L., Palacio, K.S., Spencer-Workman, S. & **Correa, Y.** (2014, June). An Exploratory Study on the Contextual Challenges and Barriers of Introducing Sustainability to First Year Engineering Students. In *Proceedings of the 121st ASEE Annual Conference and Exposition*. Indianapolis, IN
- Bedoya-Valencia, L. & **Correa, Y.** (2014, May-June). An Agent-Based Model for Emergency Evacuation. In *Proceedings of the ISERC Annual Conference and Exposition*. Montreal, Canada
- **Correa, Y.**, Farrer, R., and Watkins, T. (2014, April). PROPEL: The Value Proposition of a Comprehensive Portfolio of Services Supporting Student Success. In *Higher Learning Commission Annual Conference: Collection of Papers*. Chicago, IL. Retrieved from <http://cop.hlcommission.org/Learning-Environments/correa.html>
- **Correa, Y.**, (2012, March) Southern Colorado STEM Community of Practice Pilot Project: Engaging Families to Increase STEM Awareness and Promote Community Interest in the STEM Fields. In *Proceedings of the American Society for Engineering Education (ASEE) Rocky Mountain Section Annual Conference*. Ogden, Utah. Awarded Best Presentation

Research Projects

- Pre-Feasibility and Feasibility Analyses of the Use of Pueblo's Hemp for Production of Bio-Textiles for Erosion Control and Other Soil Remediation Applications. Co P.I.
Sponsor: Pueblo County, \$50,000. Funding period: 03/01/2021-02/28/2023
- 2020 - 2021 SEED grant "Home Healthcare Routing Problem with Dynamic Patient's Demand of Simultaneously Multiple, Specialized Nurses", P.I.
Sponsor: Colorado State University, \$4,605.
- 2019 - 2020 ICR Grant: Application of Industrial Hemp, Co P.I.
Sponsor: Colorado State University-Pueblo – Institute of Cannabis Research Amount: \$210,000
- 2018 - 2019 ICR Grant: Application of Industrial Hemp, Co P.I.
Sponsor: Colorado State University-Pueblo – Institute of Cannabis Research Amount: \$215,000
- 2018 - 2019 SEED Grant: An Exploratory Assessment of the sustainability of the Hemp Supply Chain in the State of Colorado, P.I.
Sponsor: Colorado State University-Pueblo - Office of Research and Sponsored Programs
Amount: \$7,160
- 2018 SURP Grant: The role of product structure (BoM) on the resilience of complex supply networks, P.I.
Sponsor: Colorado State University-Pueblo - Office of Research and Sponsored Programs
Amount: \$1,440, P.I.

Institutional Service

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| ▪ Faculty Senate, HSB Senator | Fall '17-Present |
| ▪ President's Budget Advisory Committee | Aug. 2016-Present |
| ▪ Panel Reviewer for the National Science Foundation | Nov. 2020 – Present |

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| ▪ Chairwoman Faculty Handbook Committee | Aug. 2019 – Present |
| ▪ Grievance and Faculty Disciplinary Task Force | Dec. 2019 - Present |
| ▪ University Leadership Team | Aug. 2019-Present |
| ▪ Vison 2028 Implementation Team | Aug. 2019-Present |
| ▪ Women in Science Task Force | Oct. 2019-Present |
| ▪ Volunteer for the Track Centers | Fall '21 |
| ▪ Volunteer for Athletics (Meet and Greet potential recruits) | Fall '21 – Present |
| ▪ Member of several hiring committees for administrative and faculty positions | Jan. 2017-Present |

Professional Memberships

- Member of the Institute for Operations Research and the Management Sciences –INFORMS
- Member of Production and Operations Management Society (POMS)
- Member of the Project Management Institute

Other Professional Experience

- Instructional Designer, RAGE, Colorado State University-Pueblo May 2014 – Jun. 2015
 - Provide support and assist faculty in the design and deployment of the web-assisted or hybrid versions of their courses.
 - Develop training workshops on the pedagogical aspects of using instructional technologies in the classroom, with special emphasis in the use of Blackboard's features.
 - Manage the Faculty Development Stipends to support growth in the use of alternative delivery formats at CSU-Pueblo.
 - Provide support and assist in other grant related activities.
- Curriculum Development Specialist, PROPEL, Colorado State University-Pueblo 2012 – 2014
 - Design, planning, execution and coordination of the PROPEL Center at Colorado State University-Pueblo. Center services include, among others: personalized, walk-in and online tutoring; online self-assessments; supplemental instruction and teaching support.
 - Design and actualization of the Center's service portfolio based on students and Faculty needs.
 - Assist the Development and Implementation of the Sustainability Minor.
 - Planning and operation of the PROPEL Summer Institute for Faculty and the management of the Service Learning Research Seed Stipends for Faculty.
- Project Coordinator, STEM Education Program, CSU-P Dec. 2009 – Dec. 2011
 - Analysis and design of evaluation instruments (pre and post treatment) to measure student's and family's perceptions of Science, Technology, Engineering and Mathematics (STEM) career fields
 - Design of informational material about STEM and its careers, targeting a diverse population
 - Design and deployment of STEM related lesson plans, guided talks and hands-on activities
 - Writing of grant proposals. Co-wrote the Southern Colorado STEM Community of Practice Pilot Project, Amt.: \$125.000.
 - Participated in the team that wrote a proposal for the Department of Education Hispanic Serving Institutions STEM program, awarded to CSU-P. Amt.: \$4.35 million.

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- Modeling and Simulation Associate, Health Market Science, King of Prussia, PA. 2007 – 2008
 - Enhancement and management of agent-based models for simulation and optimization of physicians' personal promotion for tactical planning.
 - Design and development of several system dynamics simulation models to support strategic brand planning.
 - Design and development of a modeling and simulation approach that integrates both agent-based and system dynamics methodologies using a modular architecture.
- Junior-Senior Analyst, ALTEC, High Technology Consultants, Colombia 1996 – 1998
 - Audit and Controllorship of RedP, an initiative to design and implement the first governmental network to promote citizens participation in public issues.
 - Design and deployment of the evaluation indicators for the technical proposals (network acquisition, design and construction)