Mónica Castañeda Riascos

Address: Cra 44b# 22-23, Bogotá, Colombia
Phone: +57 314 851 4223
Email: mcastanr@gmail.com

BRIEF

In 2011, I graduated from Management Engineering from National University of Colombia. I have a master in System Engineering from the same university. In 2018, I finished my PhD in computer science at National University of Colombia. I also received a meritorious thesis for my PhD dissertation. During my postgraduate studies, I always had a scholarship granted by MinCiencias. I have work experience in the power industry as well as university teaching experience. I love my job as teacher and researcher. I continuously enjoy learning and transferring my knowledge to my students. Currently, I am a senior researcher to MinCiencias:

https://scienti.minciencias.gov.co/cvlac/visualizador/generarCurriculoCv.do?cod_rh=0001426960

WORK EXPERIENCE

2017-01 - Current

Associate Professor
Universidad Jorge Tadeo Lozano, Bogotá, Colombia
I have taught following courses: *Operations Research, Methods and Models, Fundamentals of Programming using Python, Algorithms and Programming using Python, Modeling and Simulation, System Dynamics, Research Seminar and Sustainable Engineering*. I have advised to undergraduate and postgraduate students for the development of their thesis, which were related with industrial and system engineering. In addition, I have actively participated in marketing campaigns for promoting undergraduate and postgraduate programs. I have carried out renewable processes for graduate and undergraduate programs before the Ministry of Education. Lastly, I have developed other functions associated with research such as: writing scientific articles and participating in research projects

2016-07 – 2016-12	**Academic visitor** **Imperial College London, United Kingdom** During this academic visit I completed next activities: First, a literature review of business models for sustainable development of renewable energy in off-grid areas; second, a text about the British electricity market and its development on solar generation; third, a system dynamics model to study the long-term effects of distributed solar generation on the British electricity industry.
2014-08 – 2014-10	**Professor** **Instituto Tecnológico Metropolitano, Medellín, Colombia** I taught Quality Management Systems. Also, I advised to undergraduate students and developed research activities associated to writing articles.
2013-07 – 2014-07	**Energy market analyst** **XM, Medellín, Colombia** I prepared the ideal electricity dispatch for the determination of the electivity market price. I prepared reports about the Colombian market performance. I answered queries of market agents and institutions of the Colombian wholesale electricity market, for this I carried out next activities: queries in databases (sql server and golden), analysis of market exchanges (determination of losses, demand and generation of electricity), analysis of the behavior of the electricity market price and ideal electricity dispatch.

EDUCATION

2014-01 – 2018 -04	**PhD in Computer Science** **Universidad Nacional de Colombia** I received a meritorious recognition for my doctoral thesis entitled: "Framework for assessing environmental friendly strategies with the support of simulation"
2011-06 – 2014-04	**Master in System Engineering** **Universidad Nacional de Colombia**
2006-01 – 2011-06	**Management engineer** **Universidad Nacional de Colombia**
ADDITIONAL SKILLS	Software: PowerSim, Vensim, Netlogo, Flexsim, Ganttproject Programming: Visual Basic, PYTHON

SELECTED LIST OF PUBLICATIONS

1. Feasibility of using photovoltaic solar energy for water treatment plants, International Journal of Electrical and Computer Engineering, Vol 11, issue 3, 2021.

2. Simulating the efficient diffusion of photovoltaics in Bogotá: An urban metabolism approach, Energy, Vol 195, 2020.

3. The long-term effects of cautious feed-in tariff reductions on photovoltaic generation in the UK residential sector, Renewable Energy, Volume 155, 2020.

4. Clean and secure power supply: A system dynamics based appraisal, Energy Policy, Vol 131, 2019.

5. Castaneda, M., Zapata, S., & Aristizabal, A. (2018). Assessing the Effect of Incentive Policies on Residential PV Investments in Colombia. Energies, 11(10), 2614.

6. Zapata, S., Castaneda, M., Jimenez, M., Aristizabal, A. J., Franco, C. J., & Dyner, I. (2018). Long-term effects of 100% renewable generation on the Colombian power market. Sustainable Energy Technologies and Assessments, 30, 183-191.

SELECTED LIST OF PUBLICATIONS

7. Zapata, S., Castaneda, M., Garces, E., Franco, C. J., & Dyner, I. (2018). Assessing security of supply in a largely hydroelectricity-based system: The Colombian case. Energy, 156, 444-457.

8. Aristizábal, A. J., Hernán Ospina, D., Castañeda, M., Zapata, S., & Banguero, E. (2018). Fuzzy logic energy management for a microgrid with storage battery. International Journal of Ambient Energy, 1-9.

9. Castaneda, M., Franco, C. J., & Dyner, I. (2017a). Evaluating the effect of technology transformation on the electricity utility industry. Renewable and Sustainable Energy Reviews, 80(65), 341–351. http://doi.org/10.1016/j.rser.2017.05.179

10. Castaneda, M., Jimenez, M., Zapata, S., Franco, C. J., & Dyner, I. (2017b). Myths and facts of the utility death spiral. Energy Policy. 110:105–16. https://doi.org/10.1016/j.enpol.2017.07.063.

PERSONAL REFERENCES

Andrés Julián Aristizábal.
Electrical Engineer, PhD in Physics.
Professor at Universidad Jorge Tadeo Lozano.
Email: andresj.aristizabalc@utadeo.edu.co

Carlos Jaime Franco.
Civil Engineer, PhD in Engineering
Professor at National University of Colombia.
Email: cjfranco@unal.edu.co