

Lina T. Cardenas Caro

EDUCATION

Civil Engineering from Universidad de los Andes.
Time to study: January 2015 to December 2018
Bogotá, D.C. Colombia.

English as a Second Language
Southern Crescent Technical College
Time to study: August 2019 to July 2020
Fayetteville, Georgia. USA.

Erasmus Mundus Master: Flood Risk Management (2020-2022)
TU Dresden, Germany. (Winter Semester 2020)
IHE Delft, Netherlands (Summer Semester 2021, Summer Semester 2022)
UPC Barcelona, Spain (September 2021- December 2021)
University of Ljubljana, Slovenia (December 2021 – January 2022)

TECHNICAL SKILLS:

ArcGIS, QGIS, EPASWMM, EPANET, HEC-RAS, AutoCAD, REVIT, MIKE SHE, HEC – HMS, RIBASIM, R-Software,
Python(basic).
Languages: English, Spanish (native).

RESEARCH PROJECTS:

OPUS Project: Second Semester 2018

OPUS: Optimal Power Use Surface.
Project directed by Professor Juan Guillermo Saldarriaga. Bogota, Colombia.

Research project of the Universidad de los Andes and COLCIENCIAS to compare Pareto borders based on the OPUS research to improve the convergence of the optimization of drinking water distribution networks in terms of cost and network resilience.
*COLCIENCIAS: Administrative Department of Science, Technology, and Innovation of Colombia.

Bachelor Thesis Project: Second Semester 2018

Comparison of two methodologies of flow calculation to estimate flood footprints modeled with HEC-RAS, through data of IDEAM stations.
*IDEAM: The Institute of Hydrology, Meteorology and Environmental Studies.
Universidad de los Andes, Colombia.

MSc Thesis research January 2022- September2022

Approaching flood forecasting influenced by hydropower releases. A hydrological and energy market analysis. Case study of upper Magdalena River basin, Colombia.
Supervisors: Leonardo Alfonso Segura, Micha Werner.
IHE Delft, Netherlands.

WORK EXPERIENCE:

-High School mentor: August 2015- December 2018
Bogotá Colombia.

- Mentor for different high schools in Bogota, teaching Mathematics, Physics and Chemistry.

-Teaching assistant of Geomatics:

August 2016- December 2018

Place: Universidad de los Andes, Bogotá Colombia.

- Teacher assistant, lecturing complementary classes for the students of this course: Topography and GIS.
- Management of laboratory equipment: GPS, total station, and drones.

-Teaching assistant of Hydraulics:

August 2017- August 2018

Place: Universidad de los Andes, Bogotá Colombia.

- Teaching the complementary class of the course for 16 weeks per semester: Topics related to open channel design and energy.

-Teaching assistant of Hydrology:

First semester 2018

Place: Universidad de los Andes, Bogotá Colombia.

- Teacher assistant, lecturing complementary classes for the students of this course: Topics related to precipitation models, river flow and environment.

-Support engineer to develop flood risk projects in towns of Argentina:

May 2018- August 2018

Company: ITEC: Technical and scientific engineering, adviser's engineers, and consultants. Bogotá-Colombia.

- Collaboration in development with flood risk mitigation project for a presentation to the IDB (Inter-American Development Bank).
- Generate and identify rainfall and storm patterns for the towns of La Madrid and Corrientes in Argentina.
- Mapmaking using ArcGIS and AutoCAD software.

-Support engineer in audit project in maintenance of jails in Colombia.

February 2019 – Junio 2019

Company: INGESCOR Consortium and FONADE (National Development Fund of Colombia).

- Supporting budget analysis, auditory reports, negotiation between Government and Consultants.

PARTICIPATION IN CONFERENCES:

Assistant

- Ibero-American Seminar on Water and Drainage Networks - SEREA 2017. Bogotá, Colombia. November 2017
- XX User Conference CCU- ESRI Colombia. Bogotá Colombia. September 2018.

Speaker

- International perspectives on water resources and the environment. IPWE Cartagena Colombia, December 2018.

CERTIFICATIONS

- Advanced hydraulic modeling with HEC-RAS. Issued by ASCE, December 2018.
- Cartography. Issued by ESRI, June 2020.
- QGIS for hydrological applications. Issued by IHE-Delft Institute for water education. October 2020.
- Programming for geospatial hydrological applications. Issued by UNESCO, March 2021.

ACHIEVEMENTS

- Graduated from the first generation of the scholarship ("Ser Pilo Paga") of the National Government of Colombia.
- Erasmus Mundus Scholarship: Join Erasmus Mundus Master in Flood Risk Management (TU Dresden (Germany), IHE Delft (Netherlands), UPC (Barcelona), University of Ljubljana (Slovenia). Scholarship awarded by the European Union.