

**Edna Jessica Wilches
Kochinski**


Date of birth: 17/05/1992

Nationality: American, Colombian

Sex: Female

CONTACT



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EDUCATION AND TRAINING

01/2023 – 04/2024 Delft, Netherlands

Master of Science in Water Science and Engineering with specialisation in Hydroinformatics: Modelling and Information Systems for Water Management IHE Delft Institute for Water Education

01/2023 – 06/2024 Bogota,D.C, Colombia

Master of Science in Civil Engineering with specialisation in Hydraulic Resources and Environment Colombian School of Engineering Julio Garavito

01/2016 – 04/2020 Bogota,D.C, Colombia

Bachelor of Science in Environmental Engineering University of Los Andes

01/2016 – 04/2020 Bogota,D.C, Colombia

Complementary studies in Biology Universidad de Los Andes

WORK EXPERIENCE

Hidrologia, Geologia, Ambiental - HGA SAS Bogota D.C, Colombia

Environmental engineer

01/2020 – 01/2023

Environmental Impact Studies on hydrology, hydrogeology, hydraulics and water quality.

Hydraulic and hydrologic modelling in HEC-RAS and HEC-HMS

Flood mapping in ArcGIS

Data collection, interpretation and analysis of geoelectric studies (vertical electric sounding, electric tomography and well logging) for groundwater prospecting in Colombia.

Geotechnical instrumentation and monitoring.

Map development in ArcGis.

Sapienza University of Rome Rome, Italy

Associate Researcher

06/2024 – 06/2025

-Development of dynamic flood maps for pluvial urban modelling of the city of Rome using the rain on grid feature from HEC-RAS and QGIS.

-Papers on pluvial flood modelling methods and urban flood drifters.

LANGUAGE SKILLS

MOTHER TONGUE(S): Spanish | English

SKILLS

HEC-RAS	HEC-HMS	SWMM (Basic)	EPANET	MIKE + (Basic)	MIKE URBAN
Python	Visual Basic	ArcGis	QGIS	AQUASIM	QUAL2K
					IPI2Win

CONFERENCES & SEMINARS

06/2024 IHE Delft Institute for Water Education, Delft, South Holland, Netherlands.

● Short Course : Using Open data, QGIS and HEC-RAS for Hydraulic Modelling

+Teaching assistant to Dr. Ioana Popescu for HEC-RAS lectures.

28/04/2025 – 02/05/2025 Vienna, Austria

● European Geosciences Union - EGU

Oral presentation of the project "Pluvial flooding Dynamic Mapping under Historical Climatic Conditions in Rome, Italy " session HS5.4.2, abstract EGU25-12433.

PROJECTS

04/2020

● Environmental Impact Study for Solar Photovoltaic and Electrical Energy Transmission Projects in Galapa, Atlántico, Colombia

Hydrological and hydraulic assessment to build a solar farm in Galápa, Atlántico.
Flood mapping and design of a simple drainage system
Use of HEC-HMS, HEC-RAS and ArcGIS

2021 – 2022

● Environmental Impact Study on the San Juan de Uraba Basin, Uraba Colombia

Rainfall Runoff modelling of the San Juan de Uraba Basin
Flood mapping, elevation mapping, geological unit mapping, hydrogeological unit mapping in ArcGIS
Geophysical data processing

02/2021 – 12/2023

● Implemetation of geotechnical instrumentation over aqueduct network pipe - Tibitoc Usaquéen

Installation of geotechnical instrumentation for the monitoring of physical parameters leading to stress and soil deformations on the main pipeline of the aqueduct network, due to the construction of the AV. Laureano Gómez (AK 9) from Av. San José (AC 170) to street 193, in the north of Bogotá.

RESEARCH PROJECTS

12/2019

● Optimization of the evaluation of native species and enhanced substrates in green walls for nutrient treatment in the treatment of greywater in Bogotá, DC

Undergraduate Thesis Project

04/2024

● Assessment of mine spillage effects on receiving waters: hydrodynamic and water quality studies on Bacanuchi River, Mexico

International Masters Program Research Project
Python sensitivity analysis on dam discharge, hydrodynamic and water quality modelling of the Bacanuchi River using HEC-RAS and AQUASIM.

05/2024 – 07/2024

● Mine spillage modelling of the Sonora River

Scientific research on hydrodynamic and water quality studies on the Sonora river, Mexico.
Hydrodynamic and water quality modelling using Visual Basic and Python

HOBBIES AND INTERESTS

● PADI Advanced Open Water Diver

The undersigned declares to be aware that this curriculum vitae will be published on the institutional website of the University, in the "Transparent Administration" section, in the manner and for the duration provided for by Legislative Decree no. 33/2013, art. 15.