kapiolani.teagai@ifpen.fr

linkedin.com/in/kapiolaniteagai

+33 1 47 52 61 60

IFP Energies Nouvelles
Direction Géosciences
1 et 4 avenue de Bois-Préau
92852 Rueil-Malmaison Cedex

Thesis supervision

Supervisor & Promotor:
John ARMITAGE (*IFPEN*)

Co-promotor:
Léo AGÉLAS (*IFPEN*)

Co-supervisor:
Christoff ANDERMANN (*GFZ Potsdam*)

Co-supervisor:
Niels HOVIUS (*GFZ Potsdam*)

IT Skills

QGiS
Modflow/FeFlow
Python/Matlab
Hydrus-1D

Languages

French (native)
English (professional)
Japanese (basic)
Korean (basic)

Hobbies

Travels	Asian culture
Humanitarian actions	Photography

Kapiolani TEAGAI

#Hydrology #Mountains #Python #Himalayas #Environment

3rd year PhD student

PhD topic: Groundwater pathways and storage dynamics in steep mountain topography: A study case of the Kahule Khola catchment (Nepal)

About me

I am a PhD student at the French institute IFP Energies Nouvelles and the German research centre for geosciences GeoForschungsZentrum (GFZ). My work focuses on understanding hydrological processes in mountainous environments and especially in the Nepal Himalayas. In my study, I examine the coupling between the surface and subsurface and characterise the water flow pathways at the watershed scale. This will help to better understand where and how water is stored in the steep Himalayan topography. In addition, in order to further investigate the functioning of groundwater recharge in a changing climate system, a two-dimensional numerical model for subsurface-groundwater interactions is being developed. It is designed to work in topography with steep slopes, rugged flanks, and is currently adapted to fractured bedrock. My study area is the unglaciated Kahule Khola catchment (~33 km²) located north of Kathmandu in the central Himalayas (between ~1000 m asl and ~3500 m asl).

Work Experience

Strategic water metering Project Manager

SUEZ Eau France

Oct. 2016 – March 2018

- Implementation and follow-up of the strategic metering directive
- Planification (phoning/mailing) of field audits
- Carrying out on-site meter station surveys throughout the southern France
- Budget and performance monitoring.

Education & Trainings

Master's degree Hydrogeology and Transfers

Université de Poitiers

2018 – 2020

Research internship in Hydrology

Feb. 2020 - July 2020

- Estimation of soil hydrodynamic parameters in a Mediterranean environment (France)
- Data processing using MATLAB R2020a.

Research internship in Hydrogeology

April 2019 - June 2019

- Characterization of the lateral heterogeneity of an aquifer by test pumping
- Data processing using the AQTESOLV software.

Master's degree Expertise and Treatment in Environment

ULCO Université du Littoral Côte d'Opale

2014 – 2016

Company work-study training

Sept. 2015 – Sept. 2016

- Implementation and follow-up of the strategic metering directive
- Planification (phoning/mailing) of field audits
- Carrying out on-site meter station surveys throughout the northern France
- Budget and performance monitoring.