Marylin UCHASARA

1er year, PhD candidate

IFP Energies Nouvelles

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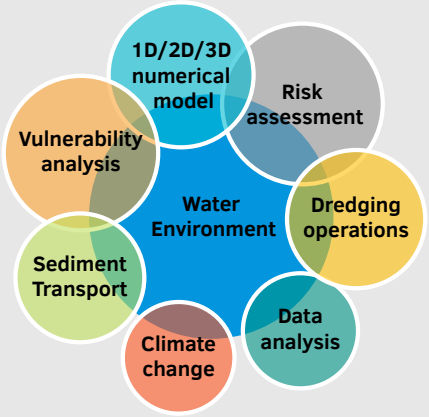
Supervisors

- John ARMITAGE (IFPEN)
- Christine Franke (Mines PSL)
- Veronique Gervais (IFPEN)
- Claire Alary (IMT Nord Europe)

Skills



Education

2023 - Now **PhD Candidate - Geosciences and Geoengineering** — **Mines Paris PSL**
Fontainebleau, France
Thesis: Uncertainty reduction and risk estimation for landscape evolution models, application to the Canche catchment (France)

2018 - 2019 **M2 - Master in Civil Engineering** — **Ecole Polytechnique de Lille**
Lille, France
Internship: Numerical modeling of the transport of micro-pollutants in the estuaries zone

2017 - 2018 **M1 - Master in Mechanical Fluid Mechanics** — **University Paris Saclay**
Ile-de-France, France
Internship: The study of equilibrium of beach profiles based on thermodynamic principles

2009 - 2014 **Civil Engineering** — **National University of Engineering**
Lima, Peru
Thesis : Demand prediction through neural networks

Work Experience

2021 - 2023 **Engineer** — **CNRS/IPSL/LMD**
Ecole Polytechnique

- Team HYDRO.
- To participate in the development of a semi-distributed hydrological model on a national scale for flood forecasting.
- Working on the algorithms that provide ORCHIDEE routing diagram and add the equations for water management.
- Add lakes, reservoirs and dams in the river graph used by ORCHIDEE.
- Perform simulations on the Euro-Mediterranean region to validate the new implementation of the scheme on ORCHIDEE routing diagram.
- IT development via collaborative tools such as GitLab

2019 - 2021 **Engineer** — **IFREMER/DYNECO/DHYSED**
IFREMER Brest

- Team of geoscientists and environmental engineers.
- 3D Hydro-sedimentary-modeling for sediment transit management.
- Numerical modeling of sediment exchanges between a macrotidal estuary on MARS 3D.
- Data analysis and sediment impact studies in Loire Estuary.

Conferences and Summer Schools

July 2022 **FDSE, Summer School** — **Palaiseau(France)**

- To give an advanced understanding of geophysical and environmental fluid dynamics and to foster networking.

Sept 2020 **Estuary Summer School** — **Bordeaux (France)**

- This is an intensive introduction to the physical oceanography of estuarine and coastal regions. We cover the coupled systems of estuarine dynamics, river plumes, and coastal circulation.

Software

CAESAR-LISFLOOD, ArcGIS, Hec-RAS, Hec-HMS, Iber 2.0, Telemac2D, CCH2D, River2D, Flo-2D, MARS 3D, ORCHIDEE, Fortran, Python, Matlab, C++, R, Wolfram Mathematica 10.4, AutoCAD Civil 3D, Excel-VBA, LATEX