

MOTIVATIONAL LETTER

My name is Melissa Medina and I am physical, Magister Mg. Sci in Applied Meteorology of the National Agrarian University La Molina and currently a candidate for the Doctorate in Water Resources. My work area is the study of the climate in of the Bolivian Peruvian highlands using neural networks and hierarchical ascending classification.

One of the tentative ideas for the group project that we could carry out is to be able to identify atmospheric circulation patterns and analyze the influence of low level jets and Cut of lows in winter precipitation for South America using neural networks of the SOM type. To identify atmospheric circulation patterns we can use wind data at 500 hPa of reanalysis using ERA-Interim and to visualize rainfall we can use data from OLR (Outgoing Longwave Radiation).

Keywords: Circulation, Precipitation, South America and neural networks patterns.

Being a research professor at the UPC Private University of Applied Sciences and teaching the physics course for computer science, I think I would be a multiplier agent in the university with my students and be able to carry out research projects with them.