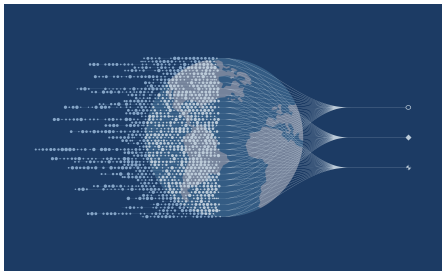

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-cost Digitizer based on FPGA and Raspberry.

Ecuador is a country surrounded by a great variety of natural hazards. Hence, it is necessary to carefully watch seismic and volcanic activity within the country, which requires a great number of resources. The Geophysical Institute of EPN (IG-EPN) oversees monitoring activities in the country, however, budget is usually a problem. With over 300 monitoring sites, IG-EPN must manage the way of having everything working properly. Therefore, a low-cost digitizer based on FPGA and Raspberry was developed. It is intended to provide an economic way to obtain seismic signals transmitted to the monitoring center.
The device has first been tested on nearby locations such as Cotopaxi volcano, which is 2 hours away from IG-EPN headquarters. It has shown a good performance in this environment which can achieve very low temperatures. It has been tested on the lab, where it achieved proper local storage and ethernet transmission. Therefore, with further development, it is intended to help first with lahar detection activities.
In conclusion, this work addresses a problematic situation where low-income countries struggle to have an adequate monitoring system operating in their countries.

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