**Data acquisition and transmission module for flowmeters**

The Hydraulic company has flowmeters installed in different facilities such as extraction wells, work centers and hotels. These facilities are far from the central control station. The flowmeters installed in these facilities have a 4-20 mA output. As these facilities are so distant from the control room, it is not possible to connect them with cables to the PLC and therefore to the SCADA. To know the behavior of these variables, it is necessary to move an operator to each of the locations. This situation leads to incurring unnecessary expenses and losing immediacy in receiving the data and making decisions regarding them. Therefore, a module capable of reading and wirelessly transmitting the readings of the flowmeters is needed.

The theme of this project is justified since it is known that there is a need for companies that control water resources in the country to manage data remotely. Associations such as Aguas Varadero have approached our university and have expressed their problems and their interest in collaborating once the reliability of the product has been demonstrated.

Additionally, the importance of data collection for decision-making and the proper management of resources has been evidenced. It should be noted that the operation without human intervention is capable of working more efficiently and in cases like this, where it is necessary to transfer personnel with their consequent logistical assurance to obtain the data, valuable resources would be saved.

The prototype intends to adopt an architecture that not only allows it to be integrated into hydraulic systems, but its operation can be extended to other areas of data collection and transmission.