### Case Study

# COMPLETE TELEMETRIC IRRIGATION SYSTEM AT LOCAL IRRIGATION WATER UTILITY "IRAS-KOURTAKIOU"





#### **Project ID:**

Complete network for **Remote Control and Telemetry** of irrigation discharges. The network communicates with a **state of art pumping station**, with system for continuous measuring of **spent electricity** and with an **Agrometeorological Stations Network**.

Continuous logging of total supplied water quantity to the irrigation network, through a high accuracy central Doppler flow meter. Measuring and logging of each irrigation flow and automatic control of water availability of each producer.

Calculation on 10 minutes basis **of leaks**, by automatic calculation of water volume difference, from the central flow meter and the total water of irrigation discharges.

#### **IN BRIEF:**

**System**: Complete system for remote

control and telemetry of Irrigation Network

Place : Argos

(Peloponnese - South Hellas)

Year: June 2019





Handling & monitoring of the system via mobile devices

All the systems communicate with the center wirelessly, without any service subscription fee. They are self-powered, using small solar panels. The network is expandable and accepts and manages up to 5.000 measuring points (discharges). Apart from discharges, accepts data from the meteorological stations of the area and accepts data from boreholes and canals, of water quality and quantity.

#### **ADMINISTRATOR:**

Local Irrigation Water Utility "Iras – Kourtakiou"

#### Important!

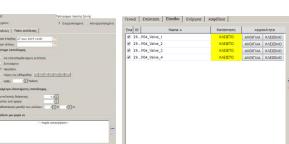
The most complete automatic irrigation network

#### **Important!**

Paired with a unified pump administration center

#### Important!

Paired with ERP system





The control center can controls the irrigation with many different ways, depending on the plan and needs of the utility.

- Determination of time, duration and repeatability of each irrigation.
- Immediate start of irrigation for specific time.
- Programming of specific irrigation quantities.
- Irrigation under conditions:
  - Water loss calculation (ETo)
  - o Soil moisture

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# COMPLETE TELEMETRIC IRRIGATION SYSTEM AT LOCAL IRRIGATION WATER UTILITY "IRAS-KOURTAKIOU"







The utility has a state of art pumping station, based on last generation pumps, with power supply by inverters. The data and control of the pumps are made locally or via internet, while the controller of the pumping station is connected with the central server in the control room of the pumping station.

The irrigation management software is installed to a modern server in the control room. To the same server are installed the ERP, the power supply management software and the pumping station control software.









A modern Doppler flow meter based on ultrasound system has been installed to the conduit, providing the water supplied to the irrigation network with accuracy of cubic meter, every 10 minutes.

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