

IoT (Internet of Things) in Irrigation and Water Distribution

Water scarcity is one of the biggest issues faced nowadays when it comes to city planning. Knowing where to draw water from, how to consume, treat and give back to the environment are the essential principles of good water sustainability.

In light of Jerusalem's problems with the lack of water, irrigation and how it's done has always been a concern. Lots of methods have been adopted over the years, going from patterns of irrigation, and the involvement of natural and foreign factors in these patterns to drip irrigation systems.

So how to monitorize effectively the consumption and distribution of water? Through smart sensing and data processing!

The evolution of technology and network reality comes new opportunities. One of these has to do with the concept of Internet of Things that has to do with the ability of common objects to gather data, connect with other machines and exchange that data.

If we apply this to the irrigation problem, it is possible for a number of sensors on sprinklers to gather data about humidity for example and process that information so that there isn't unnecessary waste of water.

And this is just one example. Another one would be to address the issue of NRW (Non Revenue Water): ideally we could put sensors or other devices that gather information in different parts of pipelines and drainpipes to measure the volume of water that passes in each part of the tubing. Considering all effluents and calculating the amount of water that should be passing at any point it is possible to find out about the existence of leaks or other problems in the pipes.

On another note it is also possible to evaluate the concentration of certain water quality indicators in a specific point.

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