UNIVERSITÀ DI PISA

Artificial Intelligence and Data Engineering

Internet of Things

Iot Irrigation System

Project Documentation

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1 — Introduction

The agriculture is one of the most fundamental resource of food production and also plays a vital role in keeping the economy running of every nation by contributing to the Gross Domestic Production. But there are several issues related to traditional methods of agriculture such as excessive wastage of water during irrigation of field, dependency on non-renewable power source, time, money, human resource etc. Since every activity now a days becoming smart it needs to smartly develop agriculture sector for growth of country. Out project aims at developing a Smart Irrigation System Using IoT Technology with an objective of automating the total irrigation system which provide adequate water required by crop by monitoring the moisture of soil and climate condition in order to prevent the wastage of water resource. It will also have many advantages for farmers. The irrigation at remote location from home will become easy and more comfortable. In addition, it will not only protect the farmer from scorching heat and severe cold but also save their time for to and from journey to the field.

1.1   System Scheme and Architecture

2 — CoAP Network

AAa

3 — MQTT Network

4 — Collector

4.1 MQTT Side

4.2 CoAP Side

4.3 Database And Data Visualization