



SCAPIGLIATO

CASE STUDY

IoT solution for monitoring leachate wells

- Industria 4.0
- Decrease in operating costs
- Remote monitoring
- Early detection of anomalies

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LEARN HOW SCAPIGLIATO REMOTELY MONITORS THE LEACHATE LEVEL, PUMP STATUS, AND PREVENTS FAILURE.

32

Wells monitored in real-time

<2

Months Implementation

12%

Decrease in operating costs

7

Thanks to IoT and the automation of the plants, we can ensure continuous monitoring of flows and greater efficiency of our leachate management processes.



Matteo Giovannetti - Responsabile Gestione Impianti, Scapigliato Srl

Industry

Environmental Services

Asset

Facilities consisting of leachate wells and extraction pumps

The Challenge

An increasing number of companies are involved in organizing specific solutions to address the various environmental problems in recent years, mainly caused by the non-recycling of waste or the decrease in the volume of natural energy sources.

Scapigliato, an Italian company that manages waste treatment and disposal plants, was looking for a solution capable of optimizing its production processes, particularly, for **improving the management and monitoring of the leachate** produced in its landfill.

With regard to the leachate, the plants consist of several wells, all equipped with a leachate level indicator and a pump which, whenever the level exceeds the threshold value, the pump will automatically turn on to empty the well until the level falls below a certain measure. In order to record the daily level of leachate in all wells of the landfill, the company used traditional paper tools and, then later, transferred the data into tables.

Therefore, the reduction of manual work, the transmission of data from the plant and the **resolution of the critical issues** related to the operation of the automatic leachate extraction system, together with the compliance with the prescriptive framework contained in the authorization and the malfunction of these pumps were the main reasons why Scapigliato decided to turn to Zerynth with the aim of **improving safety and compensating for damage** to equipment.



The Solution

Thanks to the use of the Zerynth Industrial IoT & AI Platform and, additionally, the internal presence of a GSM module, it was possible to **monitor each leachate** well and the entire operation process of the pumps.

The use of the IoT platform allowed **interfacing with the automation systems** of the leachate wells and visualizing the performance with corresponding data processing visualizations. The gathered information included **monitoring the pump status (on/off)**, the **water level in the well**, and the **total running time** of each pump.

Monitoring the pumps through timely anomaly detection, simplified data reporting, and the complete elimination of manual work enable the measurement of the well filling level and activations of the drainage pump.

Furthermore, thanks to the presence of the GSM module, Scapigliato can **track real-time data** from various locations without the need for a Wi-Fi/Ethernet connection.



The Results

Increased Automation on data analysis

24/7 remote monitoring

Improved Quality

100% early detection of anomalies

Decreased Consumption

ZERO operational costs for data recording

Why did Scapigliato choose Zerynth?

Scapigliato was able to complete the digitization process through an IoT solution capable of real-time monitoring of all 32 wells. With the assistance of Zerynth, in just 1 month, he managed to implement all IoT devices and configure data processing functions.

The reliability of the Zerynth platform ensures the security of production data, which is hardly susceptible to loss, as Zerynth can store data both on-the-edge and in the cloud.

Now, thanks to Zerynth systems, liquid levels are automatically recorded at more precise time intervals, and Scapigliato can remotely monitor the status of pumps, detecting failures or anomalies without having to manually check the well around the landfill.

Operating costs have been reduced by 12%, while efficiency and security have experienced a significant increase, also benefiting from the advantage of real-time monitoring.

About Zerynth

Zerynth enables companies to streamline production processes and increase the value of connected industrial products. Through a plug-and-play IoT & AI platform, we connect any industrial machine, allowing for a complete 4.0 transformation quickly, flexibly, and securely.

Founded in 2015, Zerynth has grown steadily. Today it has 40+ team members with deep IoT expertise and industry knowledge with over 150 customers across many industries: from manufacturing to agriculture to energy to logistics. Zerynth is based in Pisa, Italy, but also is active in international projects, and foresees an expansion both in EU and non-EU countries during the next three years.

GET START WITH ZERYNTH

Ready to see what Zerynth can do for your business?

LET'S TALK!

