Zerynth

ERGSENSE

CASE STUDY
Power Consumption IoT Monitoring

- Industria 4.0
- Monitoraggio consumo energetico
- Identificazione sprechi
- Ottimizzazione risorse

www.zerynth.com

Zerynth

DISCOVER HOW ZERYNTH EMPOWERED ERGSENSE WITH AN IOT BASED SOLUTION ENABLING A REAL-TIME MONITORING OF POWER CONSUMPTION

>35% Energy waste identification

40% Machine Downtime Reduction

10.000 times Optimized Data Space

Ergsense transitioned from a development environment using Arduino to the professionally supported Zerynth platform about 3 years ago. Through several design iterations, functional changes and increasing complexity of our product the Zerynth environment and platform management products have worked flawlessly. Customer support, when needed, has been excellent.

Tomm Aldridge, Ergsense's partner

Industry

System integrator

Goals

Scalability, adaptability, innovation

The Challenges

Modern production organizations strive to **optimize all processes and make the data collection process much easier**, faster and cost-effective. But the reality is that equipment such as pump motors or HVAC units is often located in hard-to-reach places making tracking of the running their parameters time-consuming and expensive.

Moreover, losing time to unplanned response equipment malfunction and failure is even worse. Therefore, Ergsense LLC was looking for an IoT solution capable of **quickly collecting information about production** with non-invasive implementation into machines. However, there was no such solution available on the market.

So Ergsense needed to find a cost-effective technology that could **analyze the energy efficiency in real-time**. Hence, the company was faced with the task of finding a partner that could create such a tool by using the certified and reliable technologies and taking into account all the pitfalls of the IoT sphere.

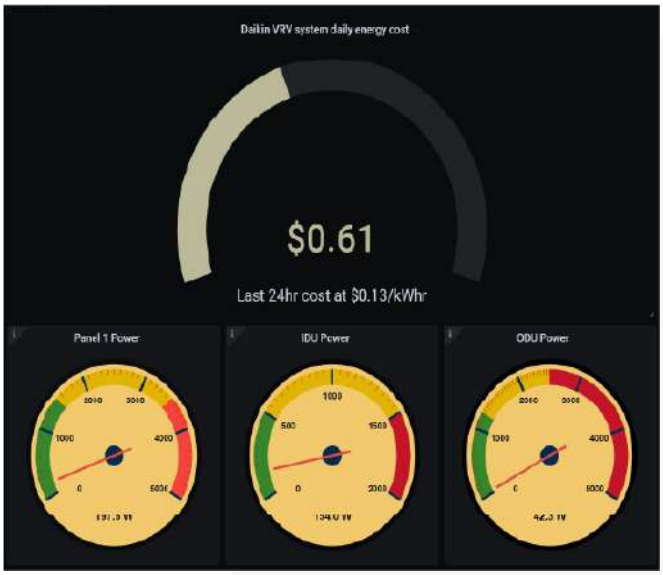
Zerynth

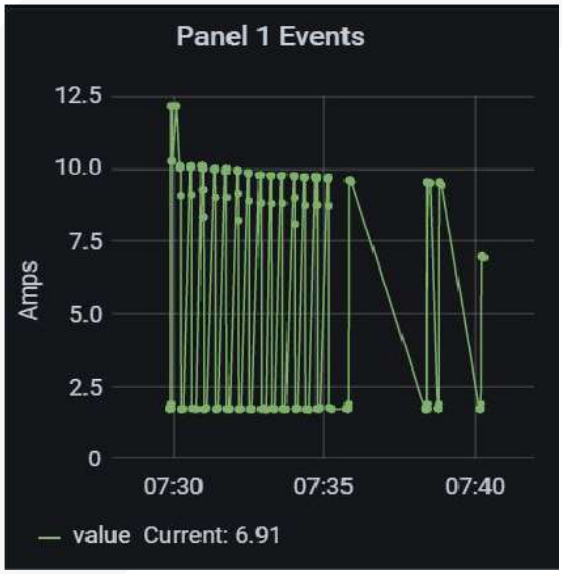
The Solution

The Zerynth team helped Ergsense release DTECTS (Detection and Tracking of Energy and Condition Trends System), an IoT-enabled solution designed for **real-time monitoring of power consumption**.

DTECTS is a conventional three channel power meter adaptable to many different load configurations, including non-energy sensor reading, it also can reduce data footprint dramatically. This technology replaces conventional time series data with compact 'KPI Event Vectors' (KEVs) describing changes significant to the user without loss of meaning. Thanks to Zerynth expert knowledges in IoT and Ergsense' expertise in electrical systems, these KEVs may be customized based on collected system data through manual or machine learning means. Similarly, the user defined KEV trigger levels may be set manually or through machine learning process.

DTECTS continually **monitors and improves energy performance of the systems**. Multiple D.Hat boards can support optimization and condition monitoring of complete systems. It helps to achieve electrical, mechanical condition and hydraulic monitoring of a pumping 'skid' containing a VFD, three phase motor and a pump. In this application condition monitoring alerts are delivered from the server to the pump management system while optimization signals are delivered from the server to the VFD to adjust operational parameters.





The Results

More accurate alerts
24/7 real-time monitoring for better informed data alerts.
ML/AI ready data
100% ready to use in training and recognition systems KPI Event Vectors.
Data footprint reduction
$$$ saved due to optimizing data footprint

Zerynth

Why did ERGSENSE choose Zerynth?

Many industrial sensor solutions rely on expensive on-site data collection through hard-wire links or storage removal. Thanks to Zerynth' technology and consultancy, Ergsense has successfully completed the creation of an IoT solution that allows you to remotely view data at any time using specially designed dashboards.

Using proprietary data packaging, Ergsense can send reliable and useful data from relatively small sensors to customers via Wi-Fi, cellular or LoRA. In just 3 months of concentrated technology integration, Zerynth helped Ergsense create a finished product that is able to monitor energy consumption parameters in real-time and send intelligent alerts.

Zerynth quickly deployed the solution, in a cost-effective way leveraging an easy-to-use technology in both residential and industrial applications world wide.

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!

+39 050 8068225 | info@zerynth.com | www.zerynth.com