

Measuring and Monitoring Systems

Lumire AB enhances water treatment efficiency with customized Condition Based Monitoring Solutions from Weidmüller

Lumire AB, a prominent player in the water treatment industry, embarked on a transformative journey with the implementation of our measuring and monitor system based on the Weidmüller Industrial IoT and Automation portfolio.

This strategic move was aimed at improving their Condition Based Maintenance capabilities across multiple remote pump stations. The first installation was made with the PLC M3000 and 8 wired sensors.

This project started as a collaborative test 'n' tune initiative with Lumire AB. Through close cooperation and iterative development, we gained valuable insights into Lumire's needs and operational context. This learning process guided several key improvements which ultimately shaped our current standard solution.

The sensors were installed on two raw water pumps that operate continuously, 24/7 throughout the year. The installation was designed to be user-friendly, with sensors mounted using powerful magnets secured at the bottom, facilitating easy repositioning during testing.

The complete platform, based on our operation system u-OS, is scalable both from a software as well as a hardware perspective. It can be a local installation, cloud installation or a hybrid installation. Sensors of relevans can also be added, such as temperature, pressure, rpm and energy data.

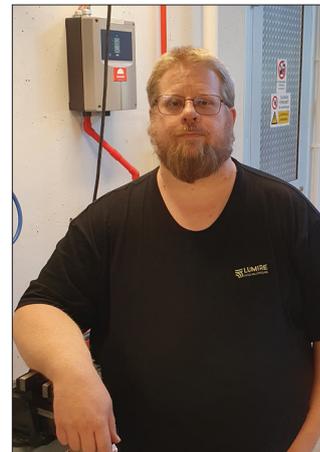
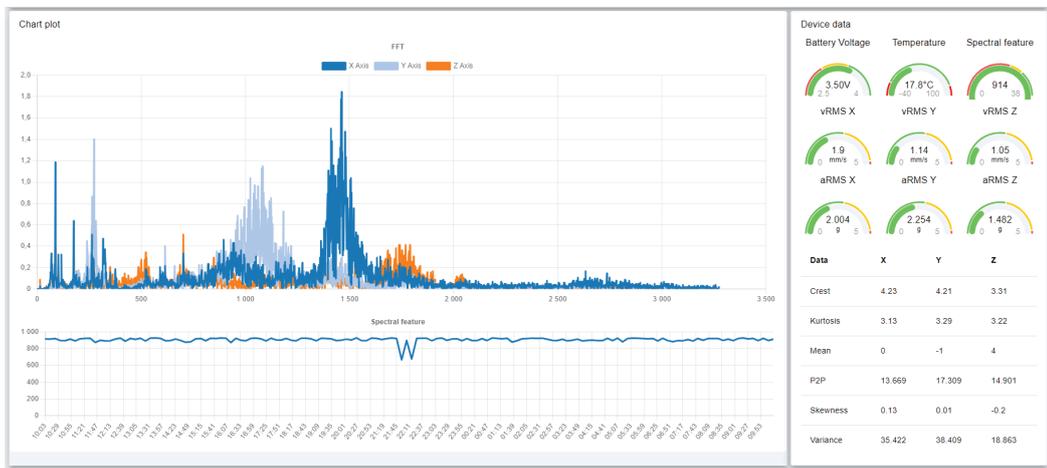
We decided to start measuring on 2 newly renovated pumps at our largest water treatment plant. We were surprised when it quickly showed deviations, revealing that the pumps had been misaligned after the service. A quick adjustment of them helped us avoid wearing down the pump or motor prematurely.

Håkan Öqvist, System Engineer, Lumire AB



Key features

- **Remote Access and Multi-Site Management:**
The u-CBM enabled remote monitoring across Lumire AB's various pump stations, significantly reducing the need for on-site personnel.
- **Ease of Installation and Operation:**
The straightforward installation process and intuitive software interface ensured that the system could be set up and managed without requiring advanced expertise in vibration analysis.
- **Automated Alerts and Maintenance Planning:**
The system's ability to generate alerts for potential issues allowed Lumire AB to plan maintenance activities proactively, minimizing downtime and ensuring continuous operation of their water pumps.
- **Data Ownership and Customization:**
Lumire AB retained full ownership of their data, providing them with invaluable insights for decision-making. The heavily modified software catered precisely to their operational needs, enhancing the overall efficacy of the solution.
- **Versatility and Retrofit Capability:**
This system is highly versatile, making it easy to retrofit onto existing machines or implement during the construction of new machinery.



Håkan Öqvist

These sensors allow us to focus on planned maintenance rather than emergency repairs when something breaks down. This approach will help us save both time and money while avoiding operational disruptions.

The challenge moving forward is to learn how to read and interpret the data. We need to define what constitutes a deviation and determine the best way to plan and implement this new way of working within our existing organization. I am confident that Weidmüller will support us in scaling this project across all our facilities.

Håkan Öqvist, System Engineer, Lumire AB

The deployment of our u-CBM vibration sensors at Lumire AB resulted in several notable achievements:

Operational Efficiency:

The remote monitoring and alert system streamlined maintenance processes, reducing unexpected break-downs and extending the lifespan of critical machinery.

Cost Savings:

By minimizing downtime and enabling planned maintenance, Lumire AB achieved significant cost savings in both operational and repair expenses.

Enhanced Reliability:

Continuous monitoring and timely interventions ensured the reliability of the water pumps, crucial for their 24/7 operations.

Customer Satisfaction:

Lumire AB expressed high satisfaction with the simplicity, effectiveness, and customization of the solution.

The successful implementation of vibration sensors and the u-CBM at Lumire AB stands as a testament to our commitment to delivering innovative, user-friendly, and effective CBM solutions.

By addressing their specific needs and providing a robust platform for remote monitoring and maintenance, we have empowered Lumire AB to achieve greater operational excellence and reliability in their water treatment processes.

This project highlights the versatility of our system, demonstrating its suitability for both retrofitting existing machinery and integrating into new installations.