

A global chemical manufacturer reduced repair costs by 35% through **predictive maintenance and real-time sensor monitoring**

Background

A global chemical manufacturing company, faced challenges with frequent and costly equipment failures. The company sought a predictive maintenance solution to enhance equipment reliability, reduce maintenance costs, and ensure consistent production quality.

Objectives

- ◆ **Enhance Equipment Reliability:** Predict and prevent equipment failures.
- ◆ **Reduce Repair Costs:** Minimize emergency repair expenses.
- ◆ **Maintain Product Quality:** Ensure consistent production quality.

Benefits

Lowered repair costs by **35%**

Challenge

- ◆ **Unscheduled Downtime:** Unexpected equipment breakdowns disrupting production.
- ◆ **High Repair Costs:** Significant expenses incurred due to emergency repairs.
- ◆ **Quality Control Issues:** Equipment failures affecting product quality and consistency.

Approach

- ◆ **Data Acquisition:**
 - ◆ Deployed advanced sensors on critical equipment to monitor parameters such as pressure, temperature, and flow rates.
 - ◆ Collected and stored data in a centralized system for analysis.
- ◆ **Predictive Maintenance Algorithms**
 - ◆ Developed machine learning models to analyze sensor data and detect early signs of equipment degradation.
 - ◆ Implemented predictive algorithms to estimate the remaining useful life of critical components.
- ◆ **Proactive Maintenance Strategy:**
 - ◆ Created a proactive maintenance schedule based on predictive insights.
 - ◆ Set up a notification system to alert maintenance teams of impending failures.

About Straive

Straive helps operationalize the data → insights → knowledge → AI journey with its deep domain expertise, process knowledge, and tech and analytics capabilities. Serving a diverse range of industries-including science and research publishing, information services, EdTech, life sciences, and banking and financial services-Straive boasts a global client base spanning over 30 countries. Our strategically positioned resource pool operates across seven countries, including the Philippines, India, the United States, Nicaragua, Vietnam, the United Kingdom, and Singapore, where the company is headquartered.