

SUCCESSFUL DEPLOYMENT OF ETP PLANT ONLINE MONITORING SYSTEM USING IOT IN THE PHARMA INDUSTRY

INTRODUCTION

Avnee Enviro Solutions, based in Pune, is a leading provider of environmental management solutions specializing in wastewater treatment and industrial effluent management. Committed to innovation and sustainability, Avnee Enviro Solutions has continually expanded its technological capabilities to serve the pharmaceutical industry in Maharashtra.

CLIENT OVERVIEW

Our client, a prominent pharmaceutical manufacturing company in Maharashtra, is dedicated to maintaining high standards of environmental compliance and operational efficiency. The company sought to modernize their Effluent Treatment Plant (ETP) for real-time monitoring and management.

Project Objective

To enhance the operational efficiency, compliance, and environmental sustainability of the client's ETP, Avnee Enviro Solutions proposed the implementation of an IoT-based Online Monitoring System. The system aimed to provide real-time data on effluent parameters, facilitate proactive maintenance, and ensure compliance with regulatory standards.



SOLUTION IMPLEMENTED

IoT Integration: Deployment of sensors and IoT devices across critical points of the ETP to monitor parameters such as pH, BOD, COD, TSS, and flow rates.

Data Analytics Platform: Development of a centralized dashboard accessible via web and mobile, providing real-time data, alerts, and analytical reports.

Automation & Alerts: Configurable alerts for parameter deviations, enabling immediate corrective actions to prevent effluent violations.

Training & Support: Comprehensive training for plant personnel and ongoing technical support to ensure seamless operation.



IMPLEMENTATION & DELIVERY

In April 2025, Avnee Enviro Solutions successfully completed the installation and commissioning of the IoT-based online monitoring system at the client's ETP facility. The project was executed within the stipulated timeline, adhering to quality and safety standards.

BENEFITS REALIZED

- **Enhanced Compliance:** Real-time monitoring ensured the plant consistently met regulatory standards, avoiding penalties.
- **Operational Efficiency:** Automated data collection reduced manual sampling efforts and improved response times.
- **Data-Driven Decisions:** Continuous data analytics enabled better process control and optimization.
- **Environmental Impact:** Improved treatment efficiency contributed to reduced environmental footprint.

CONCLUSION

The successful deployment of the IoT-based ETP online monitoring system by Avnee Enviro Solutions marks a significant step forward in sustainable industrial wastewater management in the pharmaceutical sector. This project exemplifies how innovative technology can drive environmental responsibility and operational excellence.