

ONLINE WASTE WATER MONITORING

AT STP IN COMMERCIAL APPLICATION

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ABSTRACT

Today's progressive world needs progressive solutions. Development in IoT-based equipment has become helpful now for every sector. The progressive innovations in this field have resulted to monitor even the critical aspects easily with no human interference.

The advancement in pollution and the environment field of engineering made it possible to monitor pollution in the easiest way. Industries, IT hubs, residential areas can now monitor the effluent generated with this progressive equipments. Even the pollution control board suggests opting for such instruments to keep the environment pollution-free. The experts of environment and online pollution monitoring are available to provide the solution to everyone for the environmental issues.

Implementing these progressive solutions for pollution monitoring can save the environment from getting polluted. These human hassle-free systems keep you updated by giving real-time pollution monitoring data irrespective of any location in the world.

INTRODUCTION

Water is one of the essential factors of our life. Realizing the future scarcity of water, it is important to save it from getting polluted and reuse it in each possible way. The government and pollution control board came up with the solution to monitor the effluent generated from the industries, IT hubs, residential areas, and various other sectors. It will lead to analyzing and controlling the generation of toxic elements from the effluent. The real-time monitoring helps to measure the effluent to be within a limit and then discharge it or reuse it. This maintains the freshness of water bodies.

The practice to follow such things happens only when the one who is willing to execute and the one who is with vision and solutions come together. Likely, PTESPL works on the mission to make compliance for online pollution monitoring easier. It provides solutions efficiently through a team of experts. On the other hand, the leading developer and manufacturer of microprocessors have taken the initiative to monitor the treated wastewater to contribute to keeping the environment and water bodies pollution-free.

The need for an online pollution monitoring system for wastewater with easy data access made client find PTESPL to fulfill their requirements. PTESPL, being the best service provider for pollution and environment engineering served with solutions and systems which adhere to compliance.



IMPLEMENTATION

The primary approach of PTESPL is to make the client knowledgeable about the online pollution monitoring system. Similarly, the functioning of system was explained by presenting its diagrams and specifications to the client by PTESPL team.



Image 1. Installation of OCEMS at site 1

The queries subjected to the monitoring system were appreciated, and the concepts were explained clearly to them.

The client's requirements were understood by the back office team of PTESPL to offer the best solution. The online continuous effluent monitoring system - OPRUSS OPM 300 for STP was proposed to them to measure the effluent according to the pollution control board's compliance. Its measuring parameters consist pH - potential hydrogen, COD chemical oxygen demand, BOD - Biochemical oxygen demand, and TSS - total suspended solids.

The service team planned the project with the help of seniors. PTESPL's skilled engineers visited the client's site to determine the preinstallation site condition and requirements. The scope of the client and service provider was conveyed through the report prepared by engineers. Layouts and diagrams were given to perceive the concept of system installation.

PTESPL has provided OPRUSS OPM 300 for all 4 commissioned STP's to measure the continuous effluent.

After the successful scheduled delivery, the installation of the systems was started. Taking the pandemic situation into consideration, the PTESPL team took all the safety precautions while executing the project. Also, PTESPL's engineers served with the reports of Covid test to enter their premises according to the client's safety protocols.



The installation process of the system was performed by following all the required specifications precisely.

PTESPL team provided naming tags for every sensor by mentioning their limits and arrows on every pipe to indicate the directions. PTESPL team worked efficiently by taking their suggestions into consideration to make this project successful in every aspect. The support and coordination between both teams were genuine and remarkable.

After the successful installation of the system, server connectivity to CPCB was given for accessing the data. The procedure right from the initial stage to the successful installation was completed within the span of 25 days by coordinating well.

PTESPL's team who worked efficiently on the project were Ms. Priya Vishwakarma, Mr. Syed Jabbar, Mr. Saurabh Ghadi, and Mr. Jay Rathod.



Image 2. Installation of OCEMS at site 2

CONCLUSION

The well-maintained communication and planning between PTESPL and the client led to fewer difficulties to face at the time of execution. It was observed that the extent of effluent treatment is far beyond excellency and the fact that OPRUSS OPM series sensors have a dynamic performance ranging from finely treated effluent up to toxic nature effluent. All applications are with fine accuracy measurement. PTESPL's solutions and efficiency in every aspect of pollution monitoring and the client's well-mannered protocols and communication resulted to complete this project perfectly.





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