

OPRUSS



# **STUDY OF PHYTOREMEDIATION TECHNIQUE OF WATER TREATMENT BY ONLINE WASTEWATER MONITORING SYSTEM**

---

DATED 31ST AUGUST 2021

## IMPLEMENTING OPM SERIES ANALYSERS FOR EFFLUENT QUALITY MONITORING BEFORE AND AFTER PHYTOREMEDIATION METHOD OF TREATMENT AT IIT DELHI CAMPUS

The study helps you to understand the performance of IoT-based instruments in effluent monitoring. Practicing the use of such instruments in various water matrices analyses the critical aspects effortlessly.

The project execution process at IIT Delhi was initiated in December 2020. The back office team and especially the engineers from the PTESPL Delhi office worked effortful to accomplish the purpose.

The planning and execution were important since the application was critical. Right from the initial days of system integration, system dispatch up to the installation process, commissioning and after installation services, everything was performed with the utmost discipline. The onsite protocols were considered to work with zero accidents. The challenges experienced by engineers at the time of project execution were discussed with seniors, and the best solutions were provided to resolve them.



Image 1.

OCEMS in the Downstream of flowing water bed





Image 2.

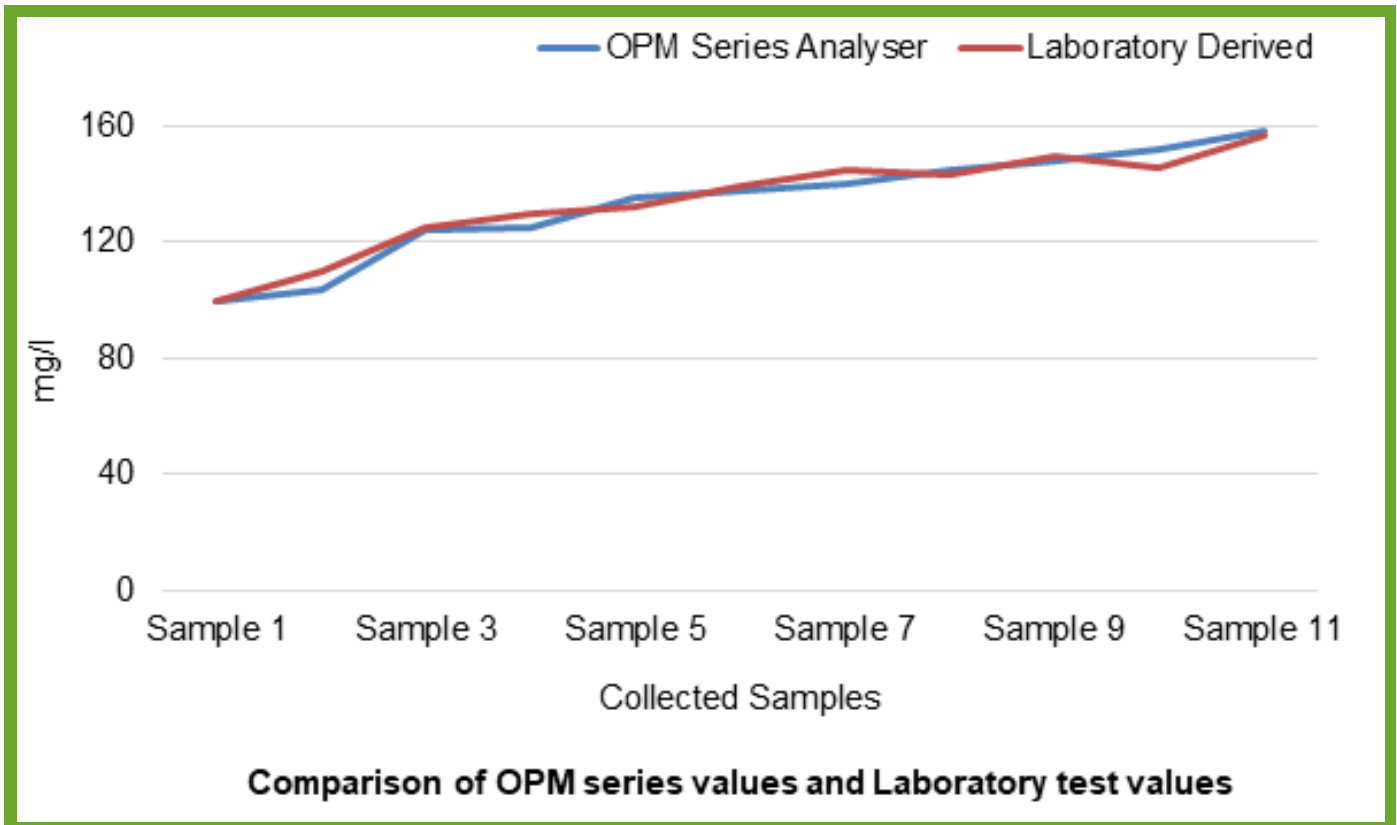
OCEMS in the Upstream of flowing water bed

The installed OCEMS system consists of OPM series 300 Analyser with Controller, OPM pH sensor, OPM 300 accessories, and Remote Diagnostics unit.

After the successful installation of the monitoring system by PTESPL, the demonstration was conducted by IIT Delhi for their ongoing research project “Water Security and Sustainable Development.” In this research, the real-time monitored data of OCEMS from the Ecolyser software dashboard was referred to compare with the grabbed samples which were tested in the laboratory. The values from the laboratory reports and the real-time readings of OCEMS matched reasonably, and it was validated by the IIT Delhi team. The real-time effluent monitoring system of PTESPL proved its accuracy through the conducted demonstration.

Emeritus Professor, Sir A. K. Gosain from IIT Delhi honored with the Letter of Appreciation by addressing the PTESPL Team for the successful installation of the system and services provided to them. It is one of the great achievements for PTESPL to cherish.

PTESPL's team members from Delhi who worked efficiently to complete this project were Mr. Mohit Negi and Mr. Rohit kumar.



Graphical representation for comparing variation in multiple grab samples analyzed from laboratory under standard procedure and results obtained from OPRUSS OPM 300 Series of Online monitoring system.

It was concluded that the OPM Series effectively traced the effect of the phytoremediation technique of effluent treatment with a visibly distinct variation within a flow span of 800 meters. Also, a distinct pattern of data trend was observed which repeated on downstream station data after upstream station data within a span of 20-30 minutes which indicates that flow velocity of the stream can also be measured from two distinctive online water quality analyzers.



 [www.ptecologicalservices.com](http://www.ptecologicalservices.com)  [official@ptespl.com](mailto:official@ptespl.com)  +91 7756979879

**HO Add : Office no 104/105, Kingston Tower, Opposite Old Viva College, Bypass road, Virar (W) - 401303 Palghar, Maharashtra, India**

Disclaimer: The content and images in this report are subject to copyright.  
Prior permission is required from the publisher for using the information.