

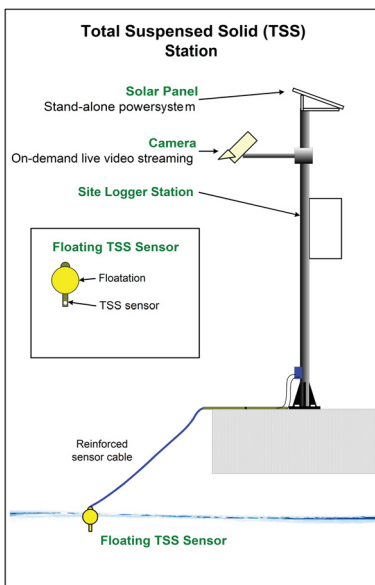
TSS MONITORING WITH VIDEO SURVEILLANCE

TriTech

Total Suspended Solid (TSS) Monitoring with Video Surveillance

In Singapore, the legislation requires that all work sites to pre-treat any water to below 50mg/l of TSS, before it is discharged into open public drains. The TSS monitoring and surveillance stations were initially custom-made solutions for Enforcement Authorities to check on illegal discharges.

With increasing demands, this solution was later developed into standard solution for full-scale deployments. The station provides on-demand live-video streaming via internet connection and equipped with water quality sensor(s).



System Features

- Fully automated surface water TSS monitoring
- Modular design concept with option of add-on video surveillance camera
- Independently powered by solar with low power design
- Suitable for drainage and outlets monitoring

Versatile Configuration

- Automatic video & data recording based on interval or event triggers.
- Fully automated Alert system.
- Automatic sensor cleaning and anti fouling mechanism.
- Independent solar-power or alternative power source solutions.
- Versatile sensor configuration to integrate other sensors: e.g. TDS, Turbidity, Salinity, TOC, DOC, COD, BOD, BTS, NO_3 , NH_4 , Chl-a etc.



Water samples with various Total suspended Solids (TSS) Readings

Technical Specification For Standard Parameters

Parameter	Measuring Principle	Range	Accuracy	Resolution	Reference Standard
TSS	60° scattering	0 - 1000 mg/l	±5%	0.1 mg/l	EN ISO 7027

Technical Specification For Video Parameters

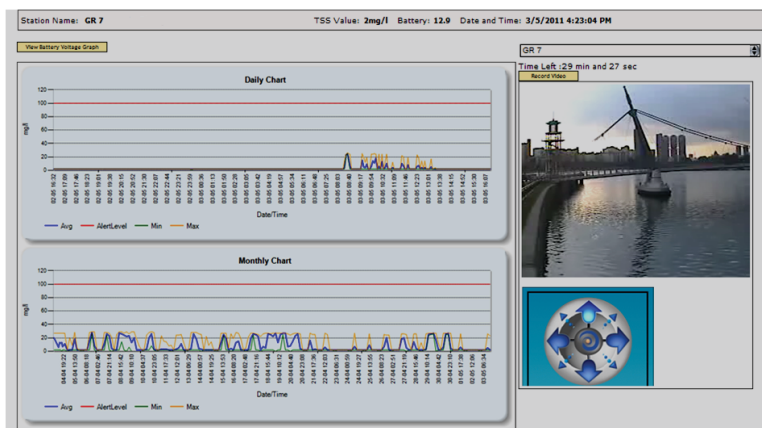
Minimum Illumination	0 Lux
Resolution	PA = 752(H) X 582(V)

Structure Parameters

Dimension	150mm (depth) x 350mm (length) x 1500mm (height)
Material	Stainless Steel
Weight	70 kg

System Parameters

Power Source	Solar Power 100W
System Operation	14 days of continuous operation without sunlight
Operating Temperature	4°C - 40°C
System Safety	Real-time anti-theft alert
Communication	Wireless GSM/GPRS/3G network
Data format	HJ/212-2005 , GB/T16706-1996



Screenshot of the Video Surveillance with TSS data monitoring showing daily and monthly charts.

Project Profile

Project Name	Supply of services for Real-time monitoring of total suspended solids (TSS) at the Drainage Outlets in Waterbodies - CW-DD/3100021
Project Description	15 Fixed Station of Water Level and TSS Monitoring System
Customer	Singapore Public Utilities Board
Contract Period	2010-05-17 - 2012-05-16

