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DESIGN OF PUMP STATIONS

COURSE DESCRIPTION

The course outlines the design aspects of pumping station; features, facilities and functions of pumping station; and undesirable effects of a pumping station.

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At the	e end of the course, participants will understand and be familiar with:
	Function of pumping station
	Types and configuration of pumping station in sewage application.
	Design aspect of a pumping station.

- Undesirable effects of pump stations.
- Features of pumping station facilities

COURSE CONTENT

- □ Introduction
 - Function of Pumping Station
 - Types of Pumping Station in Sewage Application
 - Typical Configuration of Pumping Station in Sewage Application
 - O Submersible Pump & Motor
 - O Submersible Pump with Motor Above Ground
 - O Dry Well Submersible Pump & Motor
 - O Dry Well Submersible Pump with Motor Above Ground
 - O Wet Well Submersible Pump & Motor
- O Design Aspects of a Pumping Station
 - O General
 - \mathbf{O} Siting
 - \mathbf{O} **Economics**
 - 0 Design Life
 - 0 **Design Capacity**
 - **Overflow Conditions**
 - Screening
- O Undesirable Effects of Pump Station
 - O General
 - \mathbf{O} Air-pulping
 - Aerated Flow O
 - Air Entertaining Vortices O
 - 0 **Submerged Cortices**
 - Swirling Flow \mathbf{O}
 - Large-scale Turbulence
 - Stagnation Flow
- Features of Pumping Station Facilities

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DURATION

2 days

WHO SHOULD ATTEND

Engineers and Technical personnel involve in the design and certification of sewerage systems and sewerage systems operations personnel

COURSE SCHEDULE

9.00am – 10.30am	 Introduction; Function, Types and Typical Configuration of Pumping Station in Sewage Application 	
10.30am – 10.45am	Coffee/Tea Break	
10.45am – 12.45pm	■ Design Aspect of a Pumping Station	
12.45pm – 2.00pm	Lunch Break	
2.00pm – 3.30pm	 Undesirable Effects of Pump Station 	
3.30pm – 3.45pm	Coffee/Tea Break	
3.45pm –4.45pm	Features of Pumping Station Facilities	
4.45pm – 5.30pm	Group Discussion	