

Concrete Structural Design for Industrial Training program

Introduction

Concrete structures are widely used in industrial sector special in oil and gas field for onshore.

Therefore, the basis of design for concrete structure for strength, serviceability and robustness will be discussed in scope of codes concept. So ACI, BS, UBC and ASCE will be discussed in scope of practical wise to use the suitable design method to serve our business safety and operability.

The course will cover the basis of design for retaining wall, liquid tanks, foundation under machines and foundation under steel tanks, separator, KOD. Moreover, the key steps in design and review design will be illustrated.

Objectives

- Overview modern and effective procedures for the design for reinforced concrete structures in oil and gas industry.
- Extensive workshop as a hand calculation for reinforced concrete elements which use in oil and gas industry as pipe rack and ring beam under steel tanks in plant process.
- Knowledge and assist in using new tools for designing and reviewing the design for new project or modify the existing one.
- Moreover, the design of foundation under all types of vibrating equipment.

Who Should Attend?

The structure engineers, architects, contractors, developers, and inspectors in both private and public practice will benefit.

Methodology

This interactive Training will be highly interactive, with opportunities to advance your opinions and ideas and will include;

- Lectures
- Workshop & Work Presentation
- Case Studies and Practical Exercise
- Videos and General Discussions

Certificate

BTS attendance certificate will be issued to all attendees completing minimum of 80% of the total course duration

Contents

- Health and safety
- Historical development of design management
- Machine foundation
- Soil dynamics and special design aspects
- Machine and vibration isolation systems –concepts and troubleshooting
- Tank inspection ,repair ,alteration ,and reconstruction
- Structural crack repair
- Crack repair by gravity feed with resin
- Spall repair by low pressure spraying
- Surface repair using form – and – pour techniques
- Surface repair using form – and – pump techniques
- Vertical and overhead spall repair by hand application
- Installation of embedded galvanic nodes
- Spall repair by the preplaced aggregate method
- Tank foundation
- Tank settlement