DESIGN AND CONSTRUCTION FOR STEEL AND CONCRETE STRUCTURES IN PETROLEUM INDUSTRY

OBJECTIVES:
These series of webinars is intended to overview modern and effective procedures for the design for steel and reinforced concrete structures in oil and gas, refinery, power generation and industrial projects in general.
The course will be containing 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, foundations under horizontal and vertical vessels in plant process.
This course will increase the knowledge and assist in using new tools for designing, reviewing or managing the design for new project or modify the existing one.
Moreover, the design of foundation under all types of vibrating equipment (Power turbine, pump, compressors and gas turbine generator) will cover in this online seminar with examples from real projects to enable the attendees design or review design the foundation.
The course will present the ways of repair and the recent method for implementing the maintenance plan.

Course Outline:

**Topic 1: Facilities design**

*Session 1.1:* Pipe rack design with solved example 1:30hr

*Session 1.2:* Concrete and steel Storage tank design according to API650 with tank foundation design 1:30hr
Session 1.3: Design foundation under horizontal vessel (Separator, heat exchanger etc.) 1:30hr

Session 1.4: Vertical vessel Foundation design with anchor bolts design guide. 1:30hr

**Topic 2: Foundation Under Vibrating Machines**

Session 2.1: Types of Machine and dynamic analysis principal 1:30hr

Session 2.3: Example of centrifugal and reciprocating machines foundation equipment, and Construction for the foundation and select the isolation type. 1:30hr

**Topic 3: Blast Resistance**

Session 3.1: Principal of blast load resistance and dynamic analysis for the building. 1:30hr

Session 3.2: Example for blast resistance for concrete structure building 1:30hr

**Topic 4: Repair and maintenance for structures in oil and gas plants.**

Session 4.1: Inspection and repair concrete foundation and buildings in industrial projects 1:30hr

Session 4.2: Integrity management system for oil & gas and refinery plant 1:30hr

**Tools and document:**

All the presented materials will be on hand to the participant.

All these seminars will include videos form illustration with example of design.

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Benefits of Live E-learning

• Attend lessons in a live, virtual classroom with your instructors and fellow students
• Upgrade your skills and refresh your knowledge without having to take valuable time away from work
• Receive information and materials in small, easy to digest sections
• Learn from almost anywhere - all you need is an Internet connection
• Have constant support from your course instructors and coordinator for the duration of the course
• Interact and network with participants from around the globe and gain valuable insight into international practice
• Learn from international industry experts
• Live interactive webinars, not just a ‘book on the web’

Fee and Payment
The fee is 120 USD $ per session, the payment will be through transfer to the bank account for 7 working days before start the seminar.
You can select any of the seminar you request from any topics

What do I need?
An adequate Internet connection, speakers and a microphone. A headset is recommended.
The necessary software and course materials are provided by us.

Doesn’t it get boring? How can an e-Learning course be interactive?
Boredom can be a real risk in any form of learning; however, we use an interactive approach to our e-Learning – with live sessions (instead of recordings) for most presentations. The webinar allows everyone to interact and involves participants in group work; including hands-on exercises with simulation software and remote laboratories where possible.
Mohamed A. El-Reedy’s background is in structural engineering. His main area of research is the reliability of concrete and steel structures. He has provided consulting to different engineering companies and oil and gas industries in Egypt and to international companies such as the International Egyptian Oil Company (IEOC) and British Petroleum (BP). Moreover, he provides different concrete and steel structure design packages for residential buildings, warehouses, and telecommunication towers and electrical projects with WorleyParsons Egypt. He has participated in Liquified Natural Gas (LNG) and Natural Gas Liquid (NGL) projects with international engineering firms. Currently, Dr. El-Reedy is responsible for reliability, Inspection, and maintenance strategy for onshore concrete structures and offshore steel structure platforms. He has performed these tasks for hundreds of structures in the Gulf of Suez in the Red Sea.

Dr. El-Reedy has consulted with and trained executives at many organizations, including the Arabian American Oil Company (ARAMCO), bp, Apache, Abu Dhabi Marine Operating Company (ADMA), the Abu Dhabi National Oil Company, King Saudii’s Interior ministry, Qatar Telecom, the Egyptian General Petroleum Corporation, Saudi Arabia Basic Industries Corporation (SAPIC), the Kuwait Petroleum Corporation, and Qatar Petrochemical Company (QAPCO).

Dr. El-Reedy has written numerous publications and has presented many papers at local and international conferences sponsored by the American Society of Civil Engineers, the American Society of Mechanical Engineers, the American Concrete Institute, the American Society for Testing and Materials, and the American Petroleum Institute. He has published many research papers in international technical journals and has authored four books about total quality management, quality management and quality assurance, economic management for engineering projects, and repair and protection of reinforced concrete structures. He received his bachelor’s degree from Cairo University in 1990, his master’s degree in 1995, and his Ph.D from Cairo University in 2000.