

# Examination, Maintenance, and Restoration of Maritime Buildings

Case studies and innovative techniques for inspecting several maritime structure types are also covered in this training session.

## Introduction

This training course on Examination, Maintenance, and Restoration of Maritime Buildings looks at several techniques for inspecting, fixing, and maintaining a variety of waterfront properties. It also covers risk-based inspection, which is done for submerged equipment and offshore constructions. Among the maritime structures covered in this training course are those made of steel, concrete, timber, and synthetic materials.

Case studies and innovative techniques for inspecting several maritime structure types are also covered in this training session.

### **This training session on Course N Carry will emphasize:**

- Types of subsea equipment, offshore and marine constructions, and port facilities
- Marine structure maintenance and inspection
- Upkeep and restoration of the seafront building
- Examination and soundness of offshore constructions
- Subsea equipment maintenance and inspection

## Objectives

### **After completing this training program, participants will understand:**

- Various kinds of offshore buildings, waterfront structures, and port facilities
- An overview of underwater equipment and engineering
- Restoration and revitalization methods used to build various waterfront features, including quay walls, jetties, and piers
- Risk-based Maintenance and Inspection (RBI) for submerged equipment and offshore buildings
- Obstacles to offshore and subsea structural inspection

## Training Methodology

Using a range of tried-and-true adult learning teaching and facilitation strategies, the tutor will provide participants with a comprehensive education on the topics included in the training course outline. Group discussions, activities, and case studies are all part of the training technique.

A thorough handbook, PowerPoint slides, videos, real-world examples, and competency assurance exams will all be a part of the training program.

## Organizational impacts

**The following are some advantages for the organization:**

- Enhance the various maritime structure types' operational quality for the infrastructure and oil and gas sectors.
- Educate individuals to be decision-makers in marine and offshore structures to increase organizational investment.
- Define how to change the quality control of ports, maritime structures, and offshore development or maintenance to increase project investment.
- Encourage the company to concentrate on approaches for repairing and rehabilitating a variety of waterfront structures to increase cost savings.
- Boost project efficiency via the development of human resource competences.

## Personal Impact

**The following advantages will accrue to the delegates:**

- Raising public understanding of the many kinds of maritime structures and the materials that make them
- Expanding one's understanding of the many techniques for fixing maritime structures
- Raise awareness of the significance of maritime structure restoration and maintenance
- Develop your ability to solve problems in order to preserve maritime constructions.
- Enhancing the operational abilities of the delegation

## Who should attend?

**A wide range of professionals can benefit from this Course N Carry training course, but the following are particularly noteworthy:**

- Project engineers and managers
- Engineers for marine structures
- Engineers specialising in offshore buildings
- Underwater engineers
- Engineers in structural design
- Civil engineers, or designer engineers
- Civil Engineer, Site Engineer
- Engineers with mechanical expertise
- QA/QC specialists

- Examiners
- Engineers in operations

## Course Outline

### Day 1

#### Overview of Offshore Structures, Berthing Facilities, and Subsea Engineering

- The typical profile of an offshore, nearshore, or onshore beach, etc.
- Facilities for berthing at ports (jetties, quay walls)
- Offshore structure types (subsea systems, floating structures, and fixed platforms)
- A synopsis of underwater engineering

### Day 2

#### Examination of Watercraft Structures

- Determinants of inspection performance
- Problems with performance quantification
- Components of oceanic architecture
- Planning for maintenance and the kinds of infrastructure
- Supplies and antecedent upkeep
- Compliance with safety and environmental regulations
- Inspection levels

### Day 3

#### Upkeep and Renovation of Waterfront Properties

- Wood and wooden structure repair
- Concrete structure repair
- Steel structural repair
- Synthetic material repair
- Fixing quay walls and bulkheads

### Day 4

- Evaluation of risk and dependability
- Inspection and maintenance based on risk (RBI)
- Integrity of offshore structures
- Cathodic protection is introduced

## Day 5

### Submarine Machinery, Examination, and Upkeep

- Submarine apparatus (PLEM, connectors, and jumpers) Subsea inspection, maintenance, and repair of the next generation
- Problems with underwater inspection
- Operational and maintenance safety
- Emergency cessation