

€ TRAINING

Port Engineering





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Introduction:

The Port Engineering program is a specialized training program concentrating on the planning, building, and upkeep of port facilities. It integrates civil, coastal, and structural engineering disciplines to address the specific requirements of port environments. Participants are prepared to manage port operations, including harbor development and navigation infrastructure.

Program Objectives:

At the end of this program the participants will be able to:

- Examine the latest developments, knowledge, and practices taking place in logistics and supply chains within the shipping and port industry.
- Define maritime logistics value and its strategic significance.
- Provide a global perspective on the increasingly key area of logistics.
- Understand all the aspects of logistics including container shipping, dry and wet bulk shipping, and port-centric logistics.
- Define logistics hub and its applications for container ports and improve Supply chain accessibility and efficiency.

Targeted Audience:

- Engineers and graduate engineers.
- Structural designers.
- For senior people responsible for managing a new port design.

Program Outlines:

Unit 1:

Defining Maritime Logistics And Its Value:

- Maritime logistics in concept.
- Maritime logistics value defined.
- The strategic significance of maritime logistics value.

- Concluding remarks.

Unit 2:

International Maritime Trade And Logistics:

- Logistics and supply chain management.
- Logistics and transport.
- Global trade and international maritime trade.
- Global trade and international trade.

Unit 3:

Intermodal Freight Transport And Logistics:

- Characteristics of intermodal transport.
- Containerisation of intermodal transport.
- Advantages of intermodal transport.
- Containerisation and the intermodal transport.
- Development of intermodal transport.
- Combined transport operators and their services.
- Towards innovative intermodal transport.

Unit 4:

The Human Element In Maritime Logistics:

- The human element in science and theory.
- Effects on system performance and wellbeing.

Unit 5:

Developing Liner Service Networks In Container Shipping:

- Background on container shipping.
- Configuration and design of liner shipping services.

- Shipping routes, network patterns, and port centrality.

Unit 6:

Supply Chain Integration Of Shipping Companies:

- Supply chain integration in the maritime shipping industry.
- The impact of supply chain integration on shipping firm performance.

Unit 7:

Logistics Strategy In Container Shipping:

- Literature review.
- Container line logistics activities.
- Liner operator case studies.
- Strategic groups.

Unit 8:

Tanker Shipping Logistics:

- Transfer components.
- Marine terminals.
- Contractual relationships.
- Cargo transfer procedures.
- Cargo losses.

Unit 9:

Dry Bulk Shipping Logistics:

- Dry bulk trade.
- Dry bulk fleet.
- Economies of dry bulk trade.
- Principles of dry bulk shipping logistics.

Unit 10:

Dry Port In Concept And Practice:

- Intermodality and seaport inland access.
- Intermodal terminal facilities.
- The dry port concept.
- Dry port examples in Europe.