ESITC CAEN

Ecole Supérieure d'Ingénieurs des Travaux de la Construction

PROFESSIONAL TRAINING
2016-2017

HYDRAULIC STRUCTURES

DYNAMIC SHIP MOORING ANALYSIS (DMA)

THEMATIQUE

HYDRAULIC STRUCTURES

PROFESSIONAL TRAINING
2016-2017

TITLE

DYNAMIC SHIP MOORING ANALYSIS (DMA)

OBJECTIVES

- Provide a solid background in the basics of ship mooring analysis, which can be used to derive design loads for mooring structures or the 'mooring' downtime of marine terminals;
- Analysis of special mooring scenarios (e.g. heavy lift operations), planning of mooring arrangements for specific berths and environmental conditions prior to construction/ arrival of a new design ship class (upgrade of berths);
- Training of personnel in safety and efficiency of mooring.

PUBLIC

The course is primarily prepared for consultants working on mooring system analysis/ design (i.e. port designer/engineers/naval architects).
It is also useful for: terminal operators / port authorities / ship operators, checking mooring arrangements and planning mooring systems for their berths/ships.

PRE-REQUISITE

Knowledge and background in Port Engineering.

PROGRAMME

Introduction (Day 1)
- Objectives of ship mooring analysis
- Berth/mooring types
- Ship types
- Mooring equipment (shore and ship)
- Special mooring devices

Mooring Principles (Day 1)
- Definitions
- General mooring guidelines / recommendations / criteria
- Mooring line arrangements
- Forces acting on the ship

Mooring Analysis Theory (Day 1)
- Ship reaction forces
- Environmental forces (wave, wind and flow forces)
- Mooring system forces (fenders, lines, bollards/QRHs)
- Other external forces (e.g. passing ship forces)
- Static vs. dynamic mooring analysis

Using SHIP-Moorings Software Package (Day 2 and 3)
- Introduction to SHIP-Moorings (main program) and POST-Moorings (post processing)
- Practical sessions to evaluate typical ship mooring related tasks/problems with SHIP-Moorings

LECTURER

Lutz SCHWETER
(expert from Arcadis Netherland)

DURATION

3 days

COST

1 500€ pre-tax price per person (Lunch included)

LANGUAGE

The course language and all documentation will be in English

REFERRER

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DATES

13 - 14 - 15 of June 2016
(additional field trip)

LIMITS FOR REGISTRATION

16th of may 2016

LOCATION

ESITC Caen / Normandy France

ADMINISTRATIF CONTACT

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