

# € TRAINING

Conference : Marine Electrical Maintenance



15 - 19 September 2024  
Sharm El-Sheikh (Egypt)  
Sheraton Sharm Hotel,  
Resort,



## Conference : Marine Electrical Maintenance

REF: C1788 DATE: 15 - 19 September 2024 Venue: Sharm El-Sheikh (Egypt) - Sheraton Sharm Hotel, Resort, Fee: 4095 Euro

### Introduction

In short, a marine electrician is responsible for the operation and distribution of power throughout a ship. A marine electrician maintains all onboard electrical systems, installs electrical equipment, and maintains the ships electrical system, and also ensures any onboard emergency or safety systems are operational

### Program Objectives

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

- Shipboard Electrical Safety Work Practices
- Describe marine power distribution systems
- Discuss the performance characteristics of a DC generator
- Electrical Components Testing & Insulation Resistance Testing
- Motor Starters Direct-On-Line, Reversible, and Reduced Voltage Starters
- Fault Finding Techniques:
  - Star Delta Circuit Diagram
  - Group Starter Panel
  - Ship's Motor Starter Drawing
- Circuit Analysis of Main Switchboard
- Westfalia Bilge Master Fault finding

### Targeted Audience

- Foreign-going Seafarers: Chief Engineer
- Any engineering personal as nominated by the company for operational role as Marine, Electrical and Control Engineers.

### Unit 1:

- Shipboard electrical distribution system
- Fault diagnostic of electrical faults & Maintenance

- Electronic & Automations, control Engineering
- High Voltage and Electric propulsion

## Unit 2:

- Operate and configure VARIABLE FREQUENCY DRIVE VFD
- Addressing and testing of the Fire Detection and Alarm System FDAS
- Testing of diodes and capacitor in-circuit and out-circuit
- Testing and switching of transistors

## Unit 3:

- Controlling a motor using digital techniques
- Repair and maintenance on RADAR Including replacement of magnetron
- Setting of Pressure Switch Cut-in and Cut-out
- Testing of Solenoid Valves

## Unit 4:

- Testing and measurement of I/Os of Programmable Logic Controller
- Fault-finding / Trouble-shooting of a process control system
- Batteries and UPS Maintenance
- Common Control Components

## Unit 5:

- Ancillary Equipment: Ships Lighting
- Design of secure ships
- Brushless 3 Phase AC Generator
- Frequency Converter
- Speed Controller
- Fire Detection System

