

MODU Electrical For Offshore Personnel – Level 2

Course Code : AT5202



Course Length (Days)	Taught Hours	Practical Content (%)	Theoretical Content (%)
5	35	40	60

TARGET AUDIENCE

This course is designed for electrical personnel working in the offshore and marine industries, and is principally aimed at senior staff and at those junior staff who have satisfactorily completed MODU Electrical For Offshore Personnel - level 1. It is also recommended for electronic technicians and technical supervisors and managers who have completed Level 1.

COURSE OBJECTIVES

The course looks at the main offshore electrical systems and equipment in greater detail. Automatic control, vessel and power management systems are introduced, as well as AC and DC variable speed drives. Rig marine systems are examined, and dynamic positioning is introduced.

Practical exercises include power management and switching, and AC & DC motor control with variable speed drives.

COURSE CONTENT

Theory Component

- Introduction
 - Course Introduction
 - Basic Electrical Safety
- Generator Controls
 - Review of Basics
 - Discrete and Integrated Controls
 - Engine Control & Protection
- Power Management
 - Synchronising and Paralleling
 - Power Management & Load Shedding
- DC & AC Drives
 - Power Semiconductors
 - Rectifiers, Converters & Inverters
 - AC Drives & Modern DC Drives
- Protection
 - Faults
 - Protection requirements
 - Sensors
 - Switchgear Protection
 - Power System Transients & Harmonics
 - Arc Protection
 - Insulation fault detection

- Automation and Control Systems
 - Remote Control & Communication
- Standards, Regulations and Class
- Misc Rig Systems
 - Drilling (Drawworks brake, Top Drive)
 - Marine (Jacking systems, RPD)
 - Alarms
- Basics of Dynamic Positioning
- Class, Standards, & Regulations
- Final question paper & course review

Practical Component

- System Power Management
- AC & DC Drive Motor Control
- System faults
- Troubleshooting Drive Systems
- Basic DC Motors Maintenance

DELIVERY

Teaching aids, apparatus, slides, videos, practical demonstrations, theory and practical assessments.

CERTIFICATION

ATTS Certificate of Attendance

ATTS Final Certificate showing results of theory and practical assessments will be awarded.

Minimum Number Of Delegates Required Per Event

10

Times Of Training

08:30 to 17:00

Venue

28B Penjuru Close, #01-06, Singapore 609130

Special Requirements

Delegates are required to supply their own personal protective safety equipment.

Dates And Prices

- Check with course administrator