



ADVANCED ELECTRONICS – IMO 7.02

This course is designed for Engine Officers, Electricians and other personnel who are required to have a working knowledge of advanced electronics to safely and efficiently support the operation, maintenance and repair of various electrical systems onboard.

COURSE AIMS: This course aims to provide solid understanding of the principles and practical knowledge of marine electronics and applications of microprocessors.

COVERAGE / PROGRAM FOCUS:

- Voltage Multiplier, Voltage Controller
- Current Controller
- Amplifier: Multistage Amplifiers, Darlington Amplifier, Basic Amplifier with FET
- Bistable Trigger Circuit
- Squarewave Generators, Sinewave Generators
- Phase Angle Control with Asymmetrical, Phase Angle without Asymmetrical, Phase Angle Control with Bi-directional TRIACS
- Operation Amplifiers (OP-AMPS), Dynamic Behavior of OP-AMPS
- DC Voltage Converter
- Binary Switching Elements
- AND Element, OR Element, NOT Element, AND Element, and NOR Element

METHOD: Combination of classroom lecture and laboratory work covering the theoretical and practical aspects of circuit application and tasks carried out onboard.

ENTRY REQUIREMENT / TARGET GROUP: Entry to this course is open to all Engine Officers and Electricians. Preferably, those intending to take the course should have attended the course pre-requisite "Introduction to Marine Electrotechnology" or possess good knowledge in basic electronics.

COURSE CERTIFICATE: A Certificate of Completion is given to each participant who satisfactorily fulfills the Course.

DURATION:

1 Week

(5 Days: 0830H – 1600H)

2012 DATES:

1. Jan 16 – 20
2. Feb 13 – 17
3. Mar 26 – 30
4. Apr 23 – 27
5. May 21 – 25
6. Jul 23 – 27
7. Aug 20 – 24
8. Sept 17 – 21
9. Nov 19 – 23
10. Dec 17 – 21

COURSE

CONTRIBUTION:

USD 425.00

(NSA Member)

USD 473.00

(Non-NSA Member)

*Inclusive of course
materials/handout*

