



# Wiring, Ducting & Automation for Shipbuilding Technology

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RM2,000.00**

**VENUE : UNIVERSITY COLLEGE OF TECHNOLOGY SARAWAK**  
**DATE : 31st October - 2nd November 2018**

## 3 Days Short Course

**BEM Approval CPD/PDP Hours :**  
**Reference No : IEM18/SWAK/435/C,CPD,18HOURS**



**\* Claimable under HRDF SBL Scheme ( 1183312-A)**

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# Wiring, Ducting, Automation for Shipbuilding Technology

## INTRODUCTION

An electrical wiring is a process of connection between cables and its associated devices such as switches, sockets, distribution boards, and light fittings. Design and installation of wiring process needed to meet the compliance of certain standard for eg. Bureau Veritas, ABS, NKK for marine electrical wiring. For residential wiring, electrical installation contractor need to meet the compliance with the standards : The Electricity Ordinance and The Electricity Rules, 1999. Many factors that needed to be take into consideration such as cable size, ducting and environment while carry out electrical wiring process. Some protective devices such as fuses, relays, and circuit breaker play an important role in electrical networks. this course serves as a knowledge sharing programme for all the participants to explore about the basic knowledge of wiring, ducting and automation.

## OBJECTIVES

The objectives achieved, at the end of the programme:

- ❖ The participant will expose to wiring basic knowledge.
- ❖ The participant will acquire knowledge in marine automation system.

## COURSE OUTLINE

The course is divided into 5 units, covering the basic outline of Marine Cables, Automation & Ducting

### Unit 1 : Marine Cables

- ❖ Marine Cable Class Requirement
- ❖ Type of Marine Cables

### Unit 2 : Installation of Cable

- ❖ Accessibility
- ❖ Cables Behind Panels or Deck Plating's
- ❖ Installation in Conduits or Ducts
- ❖ Installation in Thermal Insulation
- ❖ Protection Against Heating Stresses
- ❖ Fixing / Securing of Cables
- ❖ Mechanical Protection of Cables
- ❖ Fire Properties
- ❖ Installation of Cables in Refrigerated Sapaces

### Unit 3 : Cable Ducting

- ❖ Cable Tray
- ❖ Cable Ladder
- ❖ Trunking
- ❖ Pipe : GI Conduit, Plastic Conduit
- ❖ Cable Ways Mountings

### Unit 4 : Automation

- ❖ Group Alarm Monitoring System By Programmable Logic ontrollers (PLC)
- ❖ Machinery Automation

## TRAINER'S PROFILE



Mr. Jonathan Ling, completed the Bachelor of Engineering (B.E) in Electrical & Electronics Engineering from Nottingham Trent University, Nottingham, UK (2005), subsequently completed Master of Science (Msc) in Electrical Power Engineering with Business from University of Strathz Glasgow, U.K. (2008). He started his career as test process engineer in Motorola Malaysia, subsequently worked with Miri Powerline Electrical Engineering Sdn. Bhd. in Miri as a project engineer. Currently, he is the managing director for Mark Maritime Sdn. Bhd. Sib. He mainly serving mechanical and electrical engineering for shipbuilding and offshore industry. He had attended courses like FMEA, 7QC tools, Poka Yoke, Six Sigma Process Capability Studies and DMAIC. Nevertheless, he also has a wise knowledge on VHDL, C++, Linux OS9, Matlab and Autocad. He is a certified electrical installation contractor and authorized person to carry on the business of electrical works in Sarawak. Nevertheless, he also acquired the competency as a chageman.

## REMARKS:

All cheques should be made payable to UCTS CONSULTANCY & SERVICES SDN. BHD.  
Bank A/C No. : BANK ISLAM MALAYSIA BERHAD \* 1106801001090  
Please email your transaction slip to email address : payment@ucts.edu.my once payment is ready.