BAYUBALI LEARNING SOLUTIONS

GAS TURBINE - PRINCIPLES, OPERATION & MAINTENANCE COURSE

Training Dates:	As per schedule	**Training Venue:**	Kuala Lumpur, Malaysia.
Basic Fee:	RM3,450.00 + SST per participant (this includes course materials, meals, refreshment and attendance certificate)		

DURATION

21 hours (Three days)

TARGET GROUP

The courses are especially developed for the new end users of stationary Gas Turbine (Managers, Engineers, Supervisors, Operators, Technician) and everyone else who is interested in the world of gas turbine.

TARGETED INDUSTRY/INDUSTRIES

Oil and gas industries, petrochemical plant, pump oil plant, food industries and others related industries.

CERTIFICATION

Not Applicable

COURSE OVERVIEW

Stationary Gas Turbine is one of driver used to drive compressor, pump or generator in Oil & Gas, Petrochemical and Industrial plants. Gas Turbine operate at a very high temperature and its performance is affected by the environment and operating parameter where it operates. Understanding of the principles of operation, its construction and auxiliary system will enable the end user to operate and maintain the gas turbine in the most safe and efficient manner which will provide high reliability and availability to the plant operation.

COURSE OBJECTIVE

This training program will assist participants whom operating and maintaining gas turbine is a major part of their job to understand the knowledge related to the principles, operation and maintenance of gas turbine and its support systems.

COURSE OUTCOMES

At the end of this course, participants will understand:

- The basic thermodynamic and working principles of the gas turbine.
- Gas Turbine construction details (Inlet Guide Vane, compressor Blade, stator vane, combustor, turbine blade, nozzle guide vane bearing, seal, disc, shaft etc) and its related design codes (API-616)
- Gas Turbine lubrication system as per API-614.
- Start system. Oil system, Fuel System, Electrical/Electronic/Instrumentation System and Air System.
- Baryton Cycle in gas turbine operation.
- Design and operational challenges.
- Maintenance of gas turbines.

TRAINING METHODOLOGY

Training will be a lively blend of presentations and discussions drawn from many years of operation and maintenance experience. Case studies and questions will be used throughout to keep the discussions on a very practical level, with attendees being encouraged to use examples from where they are familiar with, so that they may apply the techniques to their own work environment.

COURSE CONTENTS

MODULE 1
- Gas Turbine Overview
- Gas Turbine Basic Principles

MODULE 2
- Gas Turbine Major Component

MODULE 3
- Compression, combustion and expansion process
- Gas Turbine Performance

MODULE 4
- Gas Turbine Design & Selection
- Gas Turbine Design Challenge

MODULE 5
- Gas Turbine Air Filtration System
- Gas Turbine Lubrication System
- Gas Turbine Fuel System

MODULE 6
- Gas Turbine Instrumentation & Control System
- Maintenance

ABOUT THE INSTRUCTOR

En. Zulkefli Bin Sarji, graduated with Bachelor of Engineering (Mechanical) from the Universiti Sains Malaysia. He has 28 years of experience in Oil & Gas Industries. He has involved in various types and aspect of Rotating Machinery (Maintenance, Design, Audit, Failure Investigation, Training and Coaching). He is a member of Board of Engineers Malaysia. He has attended Train-The-Trainer program for Gas Turbine and Compressor by Rolls-Royce and is a Certified & Accredited HRDC Trainer.

Since the past 14 years in teaching, he had delivered for several courses such as;

- Design Operation Maintenance of Gas Turbine
- Design Operation Maintenance of Compressor
- Practical Centrifugal Pumps Design Operation and Maintenance
- Centrifugal Pump Bearing and Sealing System
- Design Operation Maintenance of Driven Equipment
- Centrifugal Pump Selection
- Design Operation Maintenance of Pump
- Design Operation Maintenance of Steam Turbine & Turboexpander