# **illectron** The Perfect Solution To Your Pumping Needs

### PUMP TECHNOLOGY - THEORY

# **PUMP TECHNOLOGY - THEORY COURSE SUMMARY**

Fees: S\$800 / person

(excluding GST)

The course will provide engineers knowledge on Basic Pump Theory and Principles, Net Positive Suction Head and Cavitation, Affinity Laws and Pump Efficiency, Pump Curves and Pumping System Curves, Pump Station Layout and Design and will include Introduction to Pump Product Life Cycle application.

Work examples will include calculation of various hydraulic pumping solutions, including designing and calculation of pumping system curve from 1st principle.

## Learning Outcome :-

- Understanding of basic pump theory and principles
- Ability to apply efficient and effective energy saving pumping solution

### Who should attend :-

Design, Process and Production, Mechanical, **Service and Maintenance Engineers** 

### TRAINING MODULES

DAY 1 Modules 1-4

1.0 Basic Pump Hydraulic

2.0 Understanding NPSH required

3.0 Pumping Systems Pumping Selection

4.0 Pumping System Computation

DAY 2 Module 5-7

5.0 Pump Categorization Selection

6.0 Pump Station Layout

7.0 Summary Exercise

Validity: 2024



### **PUMP TECHNOLOGY - PRACTICAL**

# PUMP TECHNOLOGY - PRACTICAL COURSE SUMMARY

Fees: S\$1,200 / person

(excluding GST)

The course will provide engineers knowledge on the Basic Construction of Pump, in-depth knowledge of Operation of a Centrifugal Pump in a Pumping System, understanding and interpretation of Vibration and Noise from a Pump.

It will include a hands-on training on actual pump performance testing. The engineer will be able to perform an actual pump testing, vibration and noise measurement and diagnostic assessment in the training.

# **Learning Outcome:-**

- Ability to diagnose cause of pumping problems
- Ability to eliminate pump failure and understand preventive and condition monitoring of pumps

### Who should attend :-

Design, Process and Production, Mechanical, Service and Maintenance Engineers

### TRAINING MODULES

DAY 1 Modules 1-3

1.0 Construction of Centrifugal Pump

2.0 Operation and Maintenance

3.0 Vibration and Noise

DAY 2 Module

**Hands-on Training** 

### Singapore

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Validity: 2024