BAYUBALI LEARNING SOLUTIONS

FUNDAMENTAL OF PROCESS CONTROL TECHNOLOGY COURSE

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

DURATION

21 hours (Three (3) days)

TARGET GROUP

Plant or process supervisors, team leaders, instrument or process engineers, lectures and others who need to upgrade the knowledge and a comprehensive review or new experience of process control technology

TARGETED INDUSTRY/INDUSTRIES

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

CERTIFICATION

This course can be certified for the continuing professional development program, for example by the board engineers Malaysia, the certificate also can be considered for TVET and SKM.

COURSE OVERVIEW

The three days training program is designed to gives participants with a working principle on Proportional, Integral and Derivative controller. The participants will be exposed on how to collect the process data using process simulator. The format comprises of short lectures and extensive practical workshop session using various control loops.

Participants will be thought on how to control plant process, single loop and multiple loops. They will be able to conduct tuning on various processes.

Participants will be thought on cascade, split range, selector, ratio and others control loops.

COURSE OBJECTIVE

To provide a quality knowledge and skill which is very close to plant operation and control for instrument engineers, operation engineers, plant operators so that they can operate plant nicely, optimum operation and safely.

COURSE OUTCOMES

By the end of the session, the participants should be able to:

- Understand process characteristics.
- Conduct plant test to find the behavior process.
- Understand PID characteristics.
- Recognize the different types of PID modes
- Conduct test on PID modes
- Perfume negative and positive feedback.
- Perform direct and reverse process.
- Tune a single loop process.
- Identify and recognize various control loops.
- Perform the working principle of the enhance PID control (cascade, split range)
- Tune Enhance PID controller for various application.

TRAINING METHODOLOGY

- Lecture
- Classroom discussions
- Short video presentation
- Case study

COURSE CONTENTS

- Pre test
- Overview the course
- Definition of process and collect process data.
- PID controller and their behavior
- Control loop, single and multiple loops.
- Feedback vs feedforward
- Negative feedback and stability.
- Quality control and PID tuning.
- Multiple loops. Cascade, split range, ratio and selector.
- Principle to control multiple loops.
- Tuning for cascade
- Understanding split range, selector and ratio control.
- Basic feedforward.

ABOUT THE INSTRUCTOR

Engr. Azahar bin Mat Noor, graduated with Bachelor of Engineering (Honors) in Electrical Engineering and major in control system from the University of Technology Malaysia.
He is a Registered Professional Engineer (Mechanical) with Board of Engineer, Malaysia and a Member, The Institution of Engineers, Malaysia. He also holds an Instrumentation and Control System certificate from YEW Mitaka, Tokyo.

He had working experiences with several companies such as the Institute Technology Petroleum Petronas (INSTEP) and Centre for Instructor and Advanced Skill Training (CIAST). Since the past 20 years in teaching, he had delivered for several courses such as;

- Process Design and Process and Instrumentation for process engineer.
- Process control technology for Instrument Engineer.
- Process control technology and application.
- Control valves service and repair.
- Instrumentation and measurement Engineering.
- Basic Instrumentation and Fundamental of Process Control.