

# Basic Automation

## Course Outline

- A. Introduction to PLC ladder Programming (5 hrs)
  - PLC languages and IEC 61131-3
  - Understanding Digital IO
  - PLC programming and basic ladder design logic
  
- B. Analogue IO and data processing (4 hrs)
  - Understanding Analogue IO
  - Programming VSD
  
- C. Human Machine Interface (3 hrs)
  - Introduction to HMI
  - Programming HMI and interface with PLC
  
- D. Case Studies and Practical (9 hrs)
  - Conveyor system
  - Water Level Control
  - Waste Water Treatment Plant
  - Sorting Machine

## Trainer's Profile

### Eric Chin

Eric graduated from the Nanyang Technological University of Singapore with a Bachelor in Electrical & Electronics Engineering (Hons).

Eric has been a full-time lecturer with the Polytechnic since 2011. Prior to that, he works in SME and MNC as industrial automation and service engineers for 8 years. In terms of continuing education for adult learners, he specializes in Industrial Control and Automation module taught in the Modular Certification in Instrumentation & Control. He also undertakes research projects, working with hospitals for health and assistive technologies.