

1. Title	Use programmable logic controller (PLC) to write circuit control programme
2. Code	EMCUDE306A
3. Range	Use PLC high level programming commands to write circuit control programme for electrical and mechanical engineering design, and compare and upgrade the PLC control programme.
4. Level	3
5. Credits	6
6. Competency	<p style="text-align: center;"><u>Performance Requirements</u></p> <p>6.1 Principles of computing and concept of information coding</p> <ul style="list-style-type: none"> ◆ Understand the principles of computing, including the conversion and arithmetics of binary number, decimal number, hexadecimal number ◆ Understand the concept of information coding, and the principles of binary coding (BCD code) and ASC II code <p>6.2 Use PLC to write circuit control programme and test it</p> <ul style="list-style-type: none"> ◆ Use PLC basic and high level programming commands to write control programme for general electrical and mechanical work, e.g. control circuit of the carpark vehicle access management system, control circuit of the automatic switching system for several water pumps, etc. ◆ Test, rectify and upgrade PLC control programme <ul style="list-style-type: none"> • Test the circuit control programme written with basic and high level programmed commands • Debug and rectify the PLC control programme • Compare and upgrade the PLC control programme
7. Assessment Criteria	<p>The integrated outcome requirements of this unit of competency are:</p> <p>(i) Capable to use PLC basic and high level programming commands to write circuit control programme for general electrical and mechanical work according to the functional requirements, and test and debug the programme; and</p> <p>(ii) Capable to use PLC high level programming commands to upgrade the PLC control programme according to the functional requirements.</p>
8. Remarks	The credit value of this unit of competency is set on the presumption that the person already possesses basic computer knowledge.