In Progress

Please note that this Unit Profile is still in progress. The content below is subject to change.

ENEX13001 *Industrial Control and Automation*

Term 2 - 2025

Profile information current as at 27/09/2024 10:09 am

General Information

Overview

This unit aims to provide you with a comprehensive understanding of the key principles and concepts of industrial control and automation. The unit will focus on the essential components of automation systems. You will also gain practical expertise in programming Programmable Logic Controllers (PLCs) using ladder logic and other programming languages. This unit will offer hands-on, project-based learning opportunities that will enable you to apply your theoretical knowledge in practical settings. In this unit, you will learn to configure sensors, actuators, and control equipment to solve industrial problems. You will assess multiple options and choose the best combination of components for your design. Additionally, you will create, evaluate, and simulate an automation solution to a given industry issue using industry-standard components, software, and PLCs. This unit aligns with the United Nations Sustainable Development Goal 9: "Industry, Innovation, and Infrastructure" by fostering innovative and sustainable industrialisation using industrial automation solutions.

Details

Career Level: *Undergraduate*
Unit Level: *Level 3*
Credit Points: *6*
Student Contribution Band: *8*
Fraction of Full-Time Student Load: *0.125*

Pre-requisites or Co-requisites

Prerequisites: ENEX12002 Introductory Electronics OR (ENEE13018 Analogue Electronics & ENEE13020 Digital Electronics).
Important note: Students enrolled in a subsequent unit who failed their pre-requisite unit, should drop the subsequent unit before the census date or within 10 working days of Fail grade notification. Students who do not drop the unit in this timeframe cannot later drop the unit without academic and financial liability. See details in the Assessment Policy and Procedure (Higher Education Coursework).

Offerings For Term 2 - 2025

- Mackay
- Mixed Mode

Attendance Requirements

All on-campus students are expected to attend scheduled classes – in some units, these classes are identified as a mandatory (pass/fail) component and attendance is compulsory. International students, on a student visa, must maintain a full time study load and meet both attendance and academic progress requirements in each study period (satisfactory attendance for International students is defined as maintaining at least an 80% attendance record).

Website

This unit has a website, within the Moodle system, which is available two weeks before the start of term. It is important that you visit your Moodle site throughout the term. Please visit Moodle for more information.

Class and Assessment Overview

Information for Class and Assessment Overview has not been released yet.
This information will be available on Monday 19 May 2025

CQUniversity Policies

All University policies are available on the CQUniversity Policy site.
You may wish to view these policies:

- Grades and Results Policy
- Assessment Policy and Procedure (Higher Education Coursework)
- Review of Grade Procedure
- Student Academic Integrity Policy and Procedure
- Monitoring Academic Progress (MAP) Policy and Procedure – Domestic Students
- Monitoring Academic Progress (MAP) Policy and Procedure – International Students
- Student Refund and Credit Balance Policy and Procedure
- Student Feedback – Compliments and Complaints Policy and Procedure
- Information and Communications Technology Acceptable Use Policy and Procedure

This list is not an exhaustive list of all University policies. The full list of University policies are available on the CQUniversity Policy site.

Previous Student Feedback

Feedback, Recommendations and Responses

Every unit is reviewed for enhancement each year. At the most recent review, the following staff and student feedback items were identified and recommendations were made.

Feedback from Student unit evaluation survey

Feedback
The available learning materials and resources are insufficient to help students to learn independently.

Recommendation
Learning resources and video lectures should be improved with interactive content for independent learning.

Feedback from Unit Coordinator's reflection

Feedback
The unit lacks adequate real-world examples of industrial automation systems.

Recommendation
Industrial automation-related technologies and real-world examples should be included in the unit content.

Feedback from Unit Coordinator's reflection

Feedback
The online test may not be an adequate method for evaluating the practical knowledge of students.

Recommendation
The online test should be replaced with a practical project that applies industrial automation technologies to solve real-world problems.

Unit Learning Outcomes

Information for Unit Learning Outcomes has not been released yet.
This information will be available on Monday 19 May 2025

Alignment of Learning Outcomes, Assessment and Graduate Attributes

Information for Alignment of Learning Outcomes, Assessment and Graduate Attributes has not been released yet.
This information will be available on Monday 19 May 2025

Textbooks and Resources

Information for Textbooks and Resources has not been released yet.
This information will be available on Monday 23 June 2025

Academic Integrity Statement

Information for Academic Integrity Statement has not been released yet.
This unit profile has not yet been finalised.