

Technician



Certified Integrated Infrastructure Technician

BTEC Level 4 Award



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The **Global Leader** in **Technical Education**
for the **Digital Infrastructure Industry**

Certified Integrated Infrastructure Technician (CIIT®)

5 DAY PROGRAM

Combined

30% Theory 20% Case Study 50% Practical

Learner Profile

This program is designed for those wishing to extend their technical knowledge, further develop practical skill sets, with an aim to achieve a broader technical level capability, supported by professional qualification and certification.

Pre-Requisites

A minimum of two years installation experience within the network infrastructure sector is required. Successful completion of the Certified Network Cable Installer (CNCI®) program would be advantageous. If you would like to discuss your experience or suitability for this program please contact us.

Program Requirements

Learners are required to bring a webcam enabled laptop or suitable device with unrestricted wireless internet connectivity, the latest internet browser and suitable applications for reading/annotating PDFs and editing standard office documents.

Program Objectives

Successful learners will have the knowledge, competency and confidence to install and commission Smart Building technology devices.

On successful completion, learners will demonstrate the highest levels of technical skills and capability when installing wireless access devices, AV systems, CCTV cameras and access control systems.

Qualification

- ▶ Internationally and industry recognised BTEC Level 4 Award in Certified Integrated Infrastructure Technician

Certification

- ▶ Official Certified Integrated Infrastructure Technician (CIIT®) certification
- ▶ Use of the CIIT post nominal title
- ▶ Use of the CIIT® logo
- ▶ Use of the official Certified Integrated Infrastructure Technician (CIIT®) Digital Badge

Certifications are a commitment to life-long learning and offer the perfect portal to ensure knowledge, skills and certification remain current and up-to-date. Each certification gained requires re-certifying every three years via an online learning management system.

Additional Awards

- ▶ Continual Professional Development (CPDs)
- ▶ 5 IEEE Continual Education Units (CEUs)

Certified Integrated Infrastructure Technician (CIIT®)

Program Overview

Develop a “smart hands” approach to infrastructure delivery and gain a comprehensive knowledge of a range of intelligent devices that support smart building technical architecture.

The Certified Integrated Infrastructure Technician (CIIT®) program develops knowledge and practical skills required to deliver network infrastructure projects that include the installation and commissioning of intelligent network devices. It's a comprehensive five-day program perfect for those with at least two years of verifiable experience within the network infrastructure sector, or relevant qualifications and certifications in a wider project environment.

A certified CIIT® also considers the requirements for compliance, having a full understanding of national and international regulations, codes and standards. During the program learners will be provided a valuable opportunity to access the latest industry standards.

Learners will explore the effect of bandwidth demand on the network based on the operating parameters of a range of intelligent devices. In addition, the effects of power demand by Power over Ethernet (PoE) devices on the cable infrastructure will also be addressed.

Practical hands-on sessions are incorporated throughout this program, focusing on PoE network equipment architecture. Learners will install smart devices including wireless access points, AV systems, CCTV cameras and access control systems, and will be responsible for interpreting manufacturer's instructions to mount equipment correctly and in a position that optimises the operational function of the device. They will connect each device to the structured wiring network, prove connectivity and maintain as-fitted documents as they expand the infrastructure.

Learners will also configure smart devices using the system's graphic user interface and carry out tasks from a technical requirements document including activating switch ports for POE and LAN connections, adopting devices into service, creating device identifications and assigning IP addresses. Some common features and settings of devices will also be explored.

Following this program, you are encouraged to continue your professional development by advancing your knowledge and skills to gain further official certifications and qualifications by progressing through The Global Digital Infrastructure Education Framework which maps education programs to career advancement throughout the network infrastructure and data centre sectors.

The CIIT® program is classroom-based and led by one of CNet's expert Instructors.

CIIT® Benefits for Individuals

- ▶ Develop an increased technical knowledge and capability
- ▶ Enhanced technical capability, able to deliver multi-disciplined projects
- ▶ Greater potential for variety and enhanced job satisfaction
- ▶ Industry recognised qualification and official certification

CIIT® Benefits for Businesses

- ▶ Investment in team development, improves morale and job satisfaction leading to greater staff loyalty
- ▶ Enhanced delivery portfolio, leading to greater opportunities when tendering for projects
- ▶ Take control of normally external dependencies
- ▶ Realise cost savings through greater efficiencies

Certified Integrated Infrastructure Technician (CIIT®) Topics

Role of the CIIT

- ▶ Understand “intelligent buildings and technologies”
- ▶ Select and prepare equipment for installation
- ▶ Install terminal equipment
- ▶ Commission terminal equipment
- ▶ Troubleshoot installations

The Internet of Things

- ▶ Acronyms and definitions
- ▶ Building management systems
- ▶ Smart buildings/smart cities/smart homes
- ▶ Network convergence

Compliance

- ▶ Codes and regulations
- ▶ National/international standards
- ▶ Industry best practices
- ▶ Service warranties

Power over Ethernet

- ▶ Concept
- ▶ PoE standards and power ratings
- ▶ Power considerations and media selection
- ▶ PoE injection devices

Virtual Local Area Networks

- ▶ VLAN structure
- ▶ Planning the VLAN
- ▶ Switch configuration

Health and Safety

- ▶ Applicable legislation
- ▶ Risk associated with the installation of AV equipment
- ▶ Safe working practices
- ▶ Risk assessments

IT Networks

- ▶ Network characteristics
- ▶ Ethernet
- ▶ Network structure
- ▶ LAN architecture
- ▶ Bandwidth

Fixing and Fastening IT Networks

- ▶ Pre-installation considerations
- ▶ Video walls
- ▶ Wall mount brackets
- ▶ Ceiling mount equipment

Understanding Intelligent Architecture

- ▶ Access control
- ▶ CCTV infrastructure
- ▶ Wireless access networks
- ▶ Audio visual networks
- ▶ PoE network - power and bandwidth considerations

Practical Installation Tasks

- ▶ Access control devices
- ▶ CCTV camera systems
- ▶ Wireless access points
- ▶ Audio visual systems
- ▶ PoE network switches
- ▶ Configure devices
- ▶ Troubleshoot network failures

There is a final case study which challenges learners to plan and prepare their practical installation tasks.

