CNIT®

Certified Network Infrastructure Technician

BTEC Level 4 Award

RWL ADVANCED SOLUTIONS LTD.

CNet Training

Certified Network Infrastructure Technician (CNIT®)

Program Overview

Take your existing network infrastructure skills to new levels allowing you to successfully control and deliver major infrastructure projects.

The five-day Certified Network Infrastructure Technician (CNIT®) program develops the knowledge and skills required to perform the multifaceted role in delivering complex projects to the site. Learners will greatly enhance their supervisory and management skills through a series of complex case studies mastering the knowledge and understanding required to interpret complex design documentation, the need to establish effective relationships and communications with principle stakeholders and managing the end-to-end project implementation cycle. They will develop an aptitude for logistics and resource management, including team health and safety, dealing with risks and issues that impact project delivery. A certified CNIT® will be undaunted when dealing with escalations and problem resolution within a strategic network infrastructure project. The impact to the project delivery of current and emerging networking technologies will also be explored including wireless access, security systems and VOIP.

Learners will gain an in-depth knowledge of technical parameters for cable testing and will demonstrate confidence when dealing with escalations from installers undertaking cable testing. Experience will also be gained in the management of test records using cloud-based applications, from cable testing through to the delivery of warranty certificates to the customer.

On successful completion, learners can demonstrate the highest levels of knowledge, competency and confidence in supervising the delivering complex infrastructure projects, demonstrating efficiencies in both time and cost, coupled with a focus on quality and accuracy to achieve project closure on time and within budget.

A certified CNIT® 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.

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.

Certified Network Infrastructure Technician (CNIT®)

5 DAY PROGRAM

Combined:
50% Theory 50% Case Study

Learner Profile
This program is designed for those wishing to extend their knowledge, skills, qualifications and certifications into a wider and more complex project environment with emphasis on enhancing supervisory, leadership and management skills.

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 added supervisory and management skills, knowledge and competency to confidently deliver complex infrastructure projects within site environments.

Qualification
▶ Internationally and industry recognised BTEC Level 4 BTEC Award Certified Network Infrastructure Technician

Certification
▶ Certified Network Infrastructure Technician (CNIT®) certification
▶ Use of CNIT post nominal title
▶ Use of the CNIT® logo
▶ Use of the official Certified Network Infrastructure Technician (CNIT®) Digital Badge

Additional Awards
▶ Eligibility for an ECS (Electrotechnical Certification Scheme) Datacomms Technician card (UK only)
▶ Continual Professional Development (CPDs)
▶ 5 IEEE Continual Education Units (CEUs)

CNIT® Benefits for Individuals	CNIT® Benefits for Business
▶ Utilise new multi-disciplined supervisory knowledge to manage people and tasks confidently and competently	▶ Added supervisory skills provides the ability to realise cost efficiencies through effective planning and manpower utilisation
▶ New and improved technical skills, widening your scope of capability with up-to-date technology	▶ Improve confidence in project progression through accurate reporting
▶ Greater understanding of project complexity enabling more effective delivery management	▶ Increased customer satisfaction leading to quicker project closure and final payment
▶ Increased focus on service excellence resulting in a "right first time" approach	▶ Greater opportunities for repeat business due to improved quality of service
▶ Awareness of stakeholders enabling more effective communications	▶ A more structured delivery methodology through standardised task planning and strategies
▶ Ability to effectively manage teams, resulting in improved team morale and performance	▶ Investment in team development, improves morale and job satisfaction leading to greater staff loyalty
▶ Industry recognised qualification and official certification	

Certified Network Infrastructure Technician (CNIT®) Topics

CNIT®

Role of the CNIT®
▶ Within:
  ▶ The core layer
  ▶ The distribution layer
  ▶ The access layer

Fundamentals of Network Architecture
▶ Networking protocols
▶ Ethernet
▶ Network architecture
▶ Active network devices
▶ 3 layer network topology
▶ Bandwidth demand
▶ Intelligent building infrastructure
▶ Internet of Things (IoT)
▶ Wireless network standards
  ▶ 802.11 variations
  ▶ IEEE standards
  ▶ Frequency bands
  ▶ Channel overlap
▶ Power Over Ethernet (PoE)

Compliance
▶ National/international standards
▶ Legislative requirements
▶ Good practice
▶ BS EN 50173 series
▶ BS EN 50174 series
▶ Other supporting BS EN standards
▶ Construction products regulations
▶ The approach to implementing standards

Design Documentation
▶ Active network design drawings
▶ Inside plant drawings
▶ Outside plant drawings
▶ Network equipment room design
▶ Bill of materials
▶ Patch lists
▶ Rack face layout

Health and Safety
▶ General requirements
▶ CDM requirements
▶ Permits and cards
▶ Legal requirements
▶ Risk
  ▶ Identification
  ▶ Evaluation
  ▶ Mitigation
▶ Risk assessments and method statements
▶ Tool box talks

Network Implementation Management
▶ Outside plant
  ▶ Manholes and building entry points
  ▶ OSP cable run-out list
  ▶ Material call off
  ▶ Task planning
▶ Inside plant
  ▶ Pathways and containment systems
  ▶ Material call off
  ▶ Task planning
▶ Quality Assurance

Fire Safety
▶ Regulations
▶ Compartmentation
▶ Fire stop rated materials
▶ Construction Product Regulations (CPR)

Test Procedures and Escalations
▶ Certification Vs qualification
▶ Warranty requirements
▶ Testing principles
▶ Test standards
▶ Copper cabling
  ▶ Custom setup
  ▶ Channel testing
  ▶ Requirements for PoE
  ▶ Dealing with test failure escalations

▶ Optical fibres
  ▶ Loss budgeting
  ▶ Passive optical networks
  ▶ Dealing with test failure escalation
  ▶ Certification

OEM Software Project Structure
▶ Complex project structure
▶ Project creation
▶ Importing test results
▶ Cloud access
▶ Re-certification

Change Control
▶ MACs
▶ Evaluating impacts on:
  ▶ Cost
  ▶ Time
  ▶ Material

Project Closure
▶ Red-line drawings
▶ Certification
▶ Site closure

Pre-Class Study
Cabinets and Containment
▶ Cabinet structure and components
▶ Containment choices, types and construction methods
▶ Separation of services

Fixings
▶ Fixing choices, types and construction methods
▶ Tools
▶ Deflection calculations
▶ Structural Support

CNIT® Role and Capabilities

Certification

Role

CNIT®

SITE DELIVERY MANAGER

Capabilities

Site Supervision:	Team Leadership Health & Safety Management
Site Logistics Manager:	Task Management Stores & Equipment Co-ordination
Technical Lead:	Surveyor Resolver Quality Assurance Project Closure