Design

# CNIDP®

## Certified Network Infrastructure Design Professional

BTEC Level 5 Professional Award

Customer Focused ▶▶
Quality Driven ▶▶▶▶

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

## Certified Network Infrastructure Design Professional (CNIDP®)

### Program Overview

**Learn how to complete a detailed campus network design project and deliver this to the market via an effective tender response.**

The eight-day Certified Network Infrastructure Design Professional (CNIDP®) is a full and comprehensive program that equips network infrastructure professionals with the knowledge, skills and confidence to deliver complex infrastructure design projects from inception through to customer hand-over.

The importance of collaborative working with key stakeholders is also emphasised to ensure that the optimal internal and external network infrastructure solutions are delivered, offering flexibility and resilience across a wide range of services, ensuring that network performance is maximised to meet the customer's specified Key Performance Indicators (KPIs).

The core part of this program, the Certified Network Infrastructure Design (CNID®), explores the complex issues involved when designing whilst planning for both Inside Plant (ISP) and Outside Plant (OSP) network infrastructures examining the role of the designer and the multitude of disciplines required to deliver a multifaceted design to meet the customer requirements. Learners will benefit from understanding the design life cycle (from concept to design completion), including the analysis of the customer needs, the site survey process and detailed structure of a final design document.

The professional part of this program, the Certified Network Infrastructure Design Professional (CNIDP®), is designed to significantly elevate the knowledge and skills of the learner within the project delivery life cycle. The program explores the complex issues involved in completing a response to a Request for Quotation (RFQ) or Invitation to Tender (ITT).

Learners will benefit from gaining an understanding of all aspects of the tendering process from RFQ/ITT through to Tender award, and will understand the importance of the bid evaluation process and appreciate the need for thorough, detailed and accurate submittals to the client's project team.

Elements such as calculating accurate project delivery costs, creating comprehensive implementation plan and handover criteria will be examined in detail and provide a thorough overview of all elements involved in producing a successful tender response document.

A certified CNIDP® 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.

## 8 DAY PROGRAM

### Split into:

- **5 Day Core Unit (CNID®)**
- **3 Day Professional Unit (CNIDP®)**

**Combined: 40% Theory 60% Practical**
The CNIDP® Program consists of 172 pages of rich technical content.

### Learner Profile

This program is designed for telecommunications and data communications engineers within the network cabling design and installation environment, and those wishing to extend their skills, knowledge, qualifications and certifications in relation to the planning and design of cable systems within different environments. Learners will have sound knowledge of copper and fibre optic cabling infrastructure and awareness of networks, inside plant and outside plant. They will also have an understanding of how relevant standards are applied to design.

### Pre-requisites

A minimum of five years experience of working in the network infrastructure sector is required with at least two years project delivery experience, preferably in an installation management or infrastructure design role. In addition, knowledge of applicable industry standards 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 have 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 gain in depth knowledge and supporting skills to confidently deliver detailed design documentation and the process of evolving a customer Statement of Requirement (SOR) into an accurate and successful tender response document. Learners gain an understanding of the importance of national and international standards and can confidently apply them to design projects. Learners will also know how the tender document is processed and the assessment criteria involved.

### Qualification

- Internationally and industry recognised BTEC Level 5 Professional Award Certified Network Infrastructure Design Professional

### Certification

- Official Certified Network Infrastructure Design Professional (CNIDP®) certification
- Use of CNIDP post nominal title
- Use of the CNIDP® logo
- Use of the official Certified Network Infrastructure Design Professional (CNIDP®) 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

- Eligibility for an ECS (Electrotechnical Certification Scheme) Datacomms Designer card
- Continual Professional Development (CPDs)
- 8 IEEE Continual Education Units (CEUs)

## CNIDP® Benefits for Individuals

- Make effective design decisions based on detailed client requirements that demonstrates compliance with national and international standards
- Deliver detailed drawings that accurately depict network infrastructure components
- Generate a precise bill of materials detailing all infrastructure material requirements by type and quantity, including complex cost calculations
- Specify the requirements for project documentation in support of progression and closure

## CNIDP® Benefits for Business

- A right-first-time approach that is technically accurate in all aspects
- Confidence that design decisions are clearly represented enabling the prospective client to assess technical compliance with the statement of requirements
- Costs are clearly and accurately communicated to the prospective client mitigating the risk of variations and change requests during implementation
- Project design documents clearly outline the implementation and closure processes ensuring a smooth transition from installation to operations allowing timely completion and hand over to customer

# Certified Network Infrastructure Design Professional (CNIDP®) Topics

## Core Unit

### Design Principles
- Assess requirements
- Information gathering
- CDMQ
- Constraints
- Capacity planning

### Standards
- Standards organisations
- Cabling standards
- Installation standards
- Electrical standards
- Network and application standards
- Building Information Modelling (BIM)

### Spaces & Working Areas
- Building Entrance Facility (BEF)
- Main Equipment Room (MER)
- Building Distributor (BD)
- Floor Distributor (FD)
- Horizontal/work area distribution

### Site Survey
- Site survey process
- Greenfield and brownfield impacts
- Formulation of site survey report

### Cabling Sub-systems (ISP & OSP)
- OSP cabling
- Backbone cabling
- Horizontal cabling
- Network cabling

### Network Architecture
- Ethernet
- VoIP
- CCTV
- Wireless
- Access control
- Environmental management
- Fire alarms

### Pathways & Containment
- Cable distribution systems
- Raised access floor
- Confined spaces
- OSP cable duct systems

### Fire Stopping
- Types & specifications
- Mechanical and non-mechanical
- Regulations and testing

### Bonding & Earthing
- Regulations
- Protective Earth (PE)
- Equipotential bonding
- Electrical and UPS

### Test & Commission Specification
- Commissioning process
- Certification test methods
- Testing standards

## Professional Unit

### Understand the Design Process
- Roles of the design team
- Design stages
- Contracts
- Tools and traits for success

### Customer Requirements Assessment
- Conducting customer interviews
- Identifying key stakeholders
- Needs analysis
- Scope, plan and schedule

### ITT/RFQ Development
- RFP/RFQ objectives and structure
- Formulation of RFP/RFQ
- Scope review
- Bid submission
- Change management

### Bid Evaluations & Contract Negotiations
- Bid evaluation techniques
- Shortlist interviews
- Contract negotiations
- Contract award

### Project Execution
- Project delivery cycle
- Contractual and professional obligations
- Project scope and schedule
- Quality assurance/change management
- Installation and test sequences
- Communication plan
- Manage stakeholder expectations

### Administration, Documentation & Plans
- Identification systems
- Test results and reports
- As-built documentation
- Hand-over process
- Warranty compliance

### Commissioning & Closure
- Commission and test sequence
- Test results and documentation
- Snag/punch list process
- Customer handover
- Customer training
- Project closure process

Throughout this program learners will work on an individual campus based case study.