

PLI-08-075

INTRODUCTION TO

SDH TECHNOLOGIES

TRANSMISSION

PERPETUAL LEARNING INSTITUTE provides a comprehensive syllabus that addresses critical practices pertaining to Transmission technologies within the Telecommunications SDH/TDM access networks.

PERPETUAL
LEARNING
INSTITUTE is
a Nationally
Approved Training
Provider of
Telstra™ & nbn™

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Designed for all skill levels, this course provides an overview of telecommunication core digital transport technologies. Attendees will be introduced to transmission fundamentals, PDH, SDH and Next Generation SDH, OTN and WDM networks.

These topics will include key differentiating elements of PDH, SDH, NGSDH and OTN for efficient transmission of variant client signals including Gigabit Ethernet, ATM, Fibre Channel, STMn and ODUk.

Attendees will also be provided with relevant information on how SDH integrates into large scale networks and associated technologies including OTN and DWDM.



BOOK ONLINE

Information is subject to change
For the most current information and training schedule, please visit : www.perpetuallearning.com.au/book



ACCREDITATIONS

Perpetual Learning Institute Pty. Ltd. is a nationally Registered Training Organisation (RTO code: 40809)

Perpetual Learning Institute Pty. Ltd is also a Nationally Approved Training Provider (ATP) of nbn™ & Telstra™



APPROVED

COURSE OUTLINE

PLI-08-075-A

Introduction to Transmission Technologies

- Digital transmission fundamentals
- PCM encoding and transmission
- Transmission network synchronisation
- Telecommunications network architecture



- SDH multiplexing concepts
- Bit rates and frame structure (up to 40G)
- Transporting application data using virtual containers and concatenation
- SDH circuit protection and redundancy functions
- SDH network management
- Overview of SDH commissioning and acceptance testing

PLI-08-075-B

PDH Technical Principles

- Overview of PDH
- Framing standards G.703 and G.704
- Alarms and error performance
- Evolution of SDH and PDH into today's networks

PLI-08-075-D

Next Generation SDH Overview

- Basics of ethernet
- Ethernet transport using SDH-GFP, VAT, LCAS
- Overview of optical transport network technology
- Introduction to forward error correction
- How SDH utilises DWDM in modern networks

PLI-08-075-C

SDH Technical Principles

- What is SDH and its advantages
- International standards - SDH/SONET
- Deployment strategies using SDH

PLI-08-075-E

Course Assessment

- Theoretical assessment

INDUSTRY PROBLEM

- With the deployment of the nbn™, Australia now needs additional skilled workers to construct the different network architectures.
- New network architectures and technologies require the development of new skills and knowledge to ensure success.



PERPETUAL LEARNING SOLUTION

- Working as an nbn™ Approved Training Provider, PERPETUAL LEARNING INSTITUTE has enhanced our traditional courses to align directly to the skills needed for the nbn™ rollout.
- The development of carefully constructed skill based programs is where we excel – the art of training.
- Unlike other training organisations which focus primarily on technology, PERPETUAL LEARNING INSTITUTE is structured toward Field Operations staff. Technology theory is combined with large quantities of practical exercises to reinforce the learning process.
- PERPETUAL LEARNING INSTITUTE is the market leader with regards to hands on practical training that is supported by our real world learning simulators – “We bring the field environment to you”.



COURSE INFORMATION

Course Locations:

Melbourne, Adelaide,
Sydney, Hobart,
Canberra,
Cairns,
Brisbane,
Darwin and Perth



Location and timing will be advised at enrolment

Class Size: 10 - 12 students

Duration: 2 days

Included:

All materials used for practical exercises, technical manuals for each attendee, test equipment, emulation environment.

1 week phone support.