

# Introduction to Data Centre Electrical Engineering Principles

## DUBAI - 24th May 2007

Following the successful Autumn 06 programme of Connectix Data Centre Design Seminars, the 2007 season includes seminars in London, Dubai, Dublin and Manchester. This 1-day programme is based on the design objectives of the new standard TIA 942, Telecommunications Infrastructure Standard for Data Centres, April 2005, but modified for a European and worldwide audience by identifying those standards, regulations, directives and codes that are mandatory in the European Union as well as North America.

Continual growth in the demand on IT infrastructure (and industry's dependence on it) means that it is increasingly important to have reliable and resilient IT data centres. This seminar identifies and explains many of the factors that go into good data centre design. It will provide guidance on a number of important topics within an increasingly important industry sector, dealing with good practice in data centre design. This seminar is aimed at Professional Engineers in the mechanical and electrical trades who wish to better understand an holistic approach to the subject of data centre design. The seminar has been developed for Cabling Engineers, Electrical Engineers, Facilities and IT Managers; to give them a broad outline of all the disciplines involved in designing a data centre. It allows them to reach a high level design stage that can then be responded to by professionals, expert in their specific areas.

### APPROVALS:

**Connectix is an approved training provider by the IET**

**This seminar is approved by CIBSE for Continuing Professional Development**

**This seminar is approved by BICSI for 5 Continuing Education Credits**



### Schedule

Time / Subject	Content
<b>09:00 - 09:30</b>	Registration
<b>09:30 - 09:45</b>	Opening address
<b>09:45 - 10:30</b>	Introduction to Data centres The new Data Centre standards TIA 942 and BS EN 50173-5 TIA 942 spaces and hierarchical model Example projects and costings Intro to Uptime Model of Tiering TIA 942 recommendations for location, size, heights, floor loading, lighting and raised floors
<b>10:30 - 10:45</b>	Coffee

<b>Time / Subject</b>	<b>Content</b>
<b>10:45 - 11:45</b>	HVAC for computer rooms TIA 942 requirements Fresh air and ventilation requirements Power consumption of air conditioning Air conditioning options Under floor plenum approach Hot aisle/cold aisle model The limiting factors for free cooling of racks via floor vents TIA 942 Tiers
<b>11:45 - 12:45</b>	Lunch
<b>12:45 - 13:45</b>	Power supplies and UPS Estimating power requirements Uninterruptible Power Supply (UPS) options Power distribution to and in a rack Power Distribution Units The Signal Reference Grid
<b>13:45 - 14:00</b>	Tea / Coffee
<b>14:00 - 15:00</b>	Cabling and low fire risk designs in high value IT installations Communications cable types Fuel loads of different cable materials American building codes The riser and plenum grade of cable Limited Combustible cables European Directives The Construction Products Directive European fire tests and standards Comparing US and European specs Relative costs Separation of power and data cables to EN 50174 and BS 6701 and TIA 942

**This Seminar will also be of interest to:**

- Mechanical Building Services Engineers • Electrical Building Services Engineers
- Consulting Engineers • M&E Contracting Engineers • Technician Engineers • Facility Managers
- Facility Engineers • I.T. and Systems Engineers

**This event will be a free event at no cost to the delegate.**

The total teaching time of the Seminar will be approximately four hours.

For more technical information please log on to: <http://www.connectixcablingsystems.com/>

**Date: 24th May 2007**

**Cost: Free**