



Connecting IT, Facilities and Design

SMA Strategic
Media Asia

Reliability & Redundancy Matter - Understanding the mission-critical facilities design and avoiding costly downtime

Achieve the criteria of best practices in data center critical infrastructure / facilities design, operations, management and efficiency by our high quality training programs and worldwide accredited data center qualifications

CPD Courses approved by CIBSE UK (2 days per section)

- **Mission-Critical Facility Design & Infrastructure Engineering**
- **Electrical Design for Mission Critical Supply**
- **Air Conditioning System Design for Critical Infrastructure**
- **Project Management for Data Center & Critical Facilities (from Design to Commissioning)**

Worldwide Accredited Program (5-day) for Structured Cabling System Design -
Developed by BICSI, US (www.bicsi.org)

- **Registered Communications Distribution Designer™ (RCDD™)**

Worldwide Accredited Program (3-day) for Data Center Efficiency and Energy
Conservation - Developed by the U.S. Department of Energy (DOE)

- **Data Center Energy Practitioner™ (DCEP™)**

Schedule & Enrollment Details

Please visit
<http://www.stmedia-asia.com/trainings.html>

SMA combines with professional Chartered Engineers (CEng) from the Institute of Engineering Technology (IET), the Chartered Institute of Building Services Engineers (CIBSE) and the Hong Kong Institution of Engineers (HKIE). Our engineers have more than 20 years experience in data centre design & build, building services engineering and energy conservation in the private and public sectors.

SMA exists to provide an interactive environment and opportunities for members of data center and facilities' engineers to exchange professional views and experience. Our team prepares you to face any challenges in data centers and critical facilities of any size, in any location.

Strategic Media Asia Limited

T (852) 2117 3893
F (852) 2184 9978
E info@stmedia-asia.com

Room 403, Dominion Centre, 43 - 59
Queen's Road East, Wan Chai,
Hong Kong

www.stmedia-asia.com



Strategic Media Asia (SMA) is one of the approved CPD Course Providers of the Chartered Institution of Building Services Engineers (CIBSE) UK.

CPD Course in

Mission-Critical Facilities Design and Infrastructure Engineering

Duration: Two Days Intensive Classroom

Learning Hours: 14



We introduce critical infrastructure system that supports typical data centers and the main components that facilitate data centre design & build by exploring the standards of TIA-942, Uptime and Tier levels.

- Data Center Overview and Definition
- International Standards (TIA-942 and Uptime and Tier Levels)
- Data Center Network and Structure and IT Strategy
- Cabinet Layout and Raised Floor System
- Telecommunication Backbones, Redundancy, Sizing & Planning
- Fiber and Optical System Design and Components
- Copper Cabling Components
- Copper System Design and High Speed Ethernet
- Cable Distribution, Layout and Management
- Earthing / Grounding and Bonding
- Power (1) - High / Low Voltage System, Switch System, etc.
- Power (2) - UPS, Transformers, Fuel Tanks, Generators, etc.
- Cooling (1) - Cooling Topology, Hot / Cold Aisle, etc.
- Cooling (2) - Chiller, CRAC, Cooling Towers, etc.
- Environmental Management System
- Physical Security and Fire Protection System

CPD Course in

Project Management for Data Center & Critical Facilities (from Design to Commissioning)

Duration: Two Days Intensive Classroom

Learning Hours: 14



The course highlights the oversights required by a project management team who directs the manufacturing, the outfitting and the preparation for a data center while simultaneously oversees site work, infrastructure for facility, utility installation and facilitate IT installations.

- Reviewing the Project Management Basics
 - (1) Planning & Programming a Project for Critical Facilities
 - (2) Managing a Project on Time, Cost and Quality
- Contract Management for Data Center Design and Build
- Roles and Responsibilities
- Liaising with Clients (Facility Owners, Project Owners, etc.)
- Liaising with Stakeholders
- Liaising with Design Consultants / Architect
- Managing Facilities / Services Suppliers and Contractors
- Assessing the Project Progression and Status Meetings
- Conflicts Management
- Change Management and Accommodation
- Project Handover, Testing and Commissioning
- Cases Study

CPD Course in

Electrical Design for Mission Critical Supply

Duration: Two Days Intensive Classroom

Learning Hours: 14



You will understand the mission critical supply system, from power components to distributions and efficiency; from power requirements to design, testing, commissioning and maintenance.

- Concept on Primary Supply and Secondary Supply
- Power Flow in Mission Critical Supply System
- Features of Major Equipment for Critical Supply
 - (1) Uninterrupted Power Supply and Power Storage
 - (2) Automatic Transfer Switch and Static Transfer Switch
 - (3) Backup Generator
 - (4) Isolation Transformer
- Efficiency Assessment
- Power Quality Review
- Diagram of Critical Supply (N+1 / 2N) Design & Analysis
- Review of Cable Sizing to Incorporate Harmonics Content
- Earthing System Design
- Testing and Commissioning Requirements
- Brief of Systems Merging Appraisal Test (SMAT)

CPD Course in

Air Conditioning System Design for Critical Infrastructure

Duration: Two Days Intensive Classroom

Learning Hours: 14



This is an advanced course for data center developers and facilities professionals. You will understand the latest challenges and consider different factors, from design, testing, commissioning, sustainability and efficiency, for HVAC (Heating, Ventilation, and Air Conditioning) system of a data center.

- Datacom Equipment Power Trends and Cooling Applications
- Testing and Commissioning
- Sustainable Design and Energy Efficiency
- Design Consideration
 - (1) Design Criteria
 - (2) HVAC Load
 - (3) Computer Room Cooling
 - (4) Air Distribution
 - (5) Liquid Cooling
 - (6) Availability and Redundancy
 - (7) Integration with Other MEP System
 - (8) Controls
 - (9) Computer Fluid Dynamics