Certified Data Centre Energy Professional (CDCEP®)

Duration: 5 Days   Course Code: CDCEP

Overview:

Become an expert in data centre energy management.

Learn how to create an energy efficiency plan for your data centre. Includes creation, implementation, analysis and formulating recommendations with the ultimate objective of reducing energy use and carbon emissions.
Combined with ever-rising wholesale energy prices and legislation that penalises those using excessive amounts of electricity and the impact of carbon emissions; energy and more importantly, energy efficiency, is now an issue that is foremost in the minds of those operating within the data centre space.
The Certified Data Centre Energy Professional (CDCEP®) program teaches expertise in energy efficiency and provides the tools to make a significant contribution to the energy strategy and effectively deal with, and manage, energy related issues and on-going energy efficiency.
Learners will learn how to strategically plan, design and implement an energy plan for data centre facilities, focusing on energy efficiency. They will be introduced to current energy profiler tools and models to analyse site data and formulate a comprehensive action plan to implement real energy savings potential and capacity reclamation.
The use and distribution of power will be explored considering computer systems, servers, networking and other IT equipment and how usage can quickly spiral out of control when it is not being measured, monitored and maintained correctly. In addition, the use of redundant and back-up power infrastructure will be analysed considering the power utilisation for air-conditioning, fire-suppression, security, alarms and other supporting systems. These types of high power, high density equipment all place additional burden on the power supplied and cooling systems.
The CDCEP® program content is continually updated to reflect the key industry energy efficiency developments and takes into account the requirements of the latest version of the EU Code of Conduct in Data Centres and the US DoE Data Centre Energy Practitioner (DCEP).
It also takes into account the requirements of the current BS EN 50600 and TIA 942-B standards, industry best practice documentation and codes of conduct.
During the program learners will also have access to current standards for reference purposes.
This program is a must for all Data Centre Managers, Operations Managers, Facilities Managers, IT & Network Managers and supporting departments responsible for improving the energy efficiency of all the data centre environments whilst meeting regulatory demands.

Target Audience:

This program is targeted at individuals who are responsible for the management and use of energy within a data centre.

Objectives:

- The CDCEP® is designed to provide an unrivalled knowledge and forward thinking approach to energy provision, use and management.

- Those with the CDCEP® certification can demonstrate advanced knowledge and a holistic approach to improving energy efficiency potential in a data centre through the creation of a comprehensive, future-ready and sustainable energy strategy. Through implementation of the structured action plan they can provide long-term carbon reductions and financial savings, whilst continuing to meet the on-going requirements of the business and regulatory demands.

Prerequisites:

Learners are required to undertake pre-class reading and bring a laptop with internet connectivity to the class.

Content:

Core Unit:	Site selection considerations	IT value
Need for Energy Efficiency?	Energy efficiency considerations	Financial planning
CO2 emissions issues	Energy Strategy	Total Cost of Ownership (TCO)
Impact of increased energy demand	Energy efficiency policy	Codes ; Best Practice
Data centre constraints	Energy efficiency strategy	DoE DCEP
Corporate Social Responsibility	Energy action plan ; management review	EU Code of Conduct
Understanding Corporate Social Responsibility (CSR)	Energy Efficiency Plan	A Strategy for Energy Management
	Elements of the energy efficiency plan	Energy management roadmap
Implementation of ISO 26000		
	Continual monitoring	Energy management team
Energy Audits		
	Professional Unit	Energy awareness
Energy audit process		
	Delivery of the Energy Efficiency Plan	Immediate Energy Actions (4C's)
Primary audit environments		
	Deployment of the energy efficiency plan	Importance of the four key constraints
Actions to improve energy efficiency		
	Measuring, monitoring and reporting	Identifying the immediate concerns
Energy Evaluation		
	Energy efficiency procurement	Actioning the immediate concerns
Understanding energy consumption		
	Site Specific Energy Audits	Medium-Term CAPEX Actions
Identification of areas of concern		
	Audit direction	IT measures
Evaluation and modelling sources		
	Site specific audit plans	Cooling measures
Achievable Expectations ; Energy Forecasting		
	Keys energy audit areas	Power measures
Achievable expectations		
	Energy Use Systems	CAPEX ; ROI impacts
Industry best practices		
	Major energy use systems	
Analysis and calculations		
	Energy profile changes	Long-Term CAPEX/OPEX Actions
Forecasting growth		

Energy Metrics	Optimisation actions	Long-term power efficiency
Need for metrics	System Specific Analysis	Long-term cooling efficiency
Current industry metrics	IT analysis	CAPEX ; OPEX evaluation
New proxy metrics	Power infrastructure analysis	Processes ; Procedures
Capacity Reclamation	Environmental analysis	Process ; procedure requirements
Understanding design parameters	Cooling analysis	Process ; procedure monitoring and control
Importance of the four key constraints	Analysis Tool-sets	Future Technical Developments
Decommissioning	Data centre toolsets	New developing technologies
Capacity management	Active Energy-Efficiency Measures	Energy Efficiency Accreditations
KPIs ; Metrics	Establishing an energy baseline	Environmental accreditations
Defining KPIs	Measuring and monitoring	Energy accreditations
Selecting and preparing KPIs	Data analysis and energy plan preparation	Data centre energy accreditations
KPI measuring models	Real-time monitoring	There are a number of group and individual case studies to formulate energy efficiency plans throughout this program.
Business Continuity	Return on Investment	
Business continuity considerations	Return on Investment (ROI)	

Further Information:

For More information, or to book your course, please call us on Head Office Tel.: +974 40316639

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