Organiser

Co-organiser

hkpc[®]Academy



Data Centre Operation and Maintenance for Engineers and Managers

Course Highlights	Programme code	10009661-09
 A practical workshop introducing modern data centre's operation and maintenance strategies through case studies and 	Date and time	22 Jun 2021 (Tue) 9:30 - 17:00
	Venue	1/F, HKPC Building, 78 Tat Chee Avenue, Kowloon, Hong Kong
 experience sharing 6 hours of CPD accredited by the Institution of Data Centre 	Language	Cantonese (supplemented by English and with English handouts)
 Engineers (IDCE) Certificate holders fulfilled relevant requirements are eligible to apply for Member of the Institution of Data Centre Engineers (MIDCE) 	Course fee	HK\$2,300 HK\$2,070* *Members of Co-organiser/ members of supporting organisation/group enrolment of two or more
Introduction		

A data centre is designed to provide uninterrupted infrastructure services for data processing operations. It consolidates information technology resources to enable computerised services, applications and transactions.

Many IT professional and facility managers are challenged with enhancing data centre performance while saving the maintenance and operation costs.

Realising the importance of the profession, Hong Kong Productivity Council and the Institution of Data Centre Engineers jointly organised this course to further explore plant operation management and M&E topics of data centres.



Data Centre Operation and Maintenance for Engineers and Managers

Objectives

- Know how to respond to emergencies such as power outage and cooling failure.
- Understand the operation of Uninterruptible Power Supplies (UPS) and Computer Room Air Conditioner (CRAC) systems, and other Mechanical & Electrical (M&E) plants.
- Learn and apply maintenance strategies.
- Know how to resolve complex system breakdowns.
- Ensure the working order of maintenance in computer rooms

Who should attend

This course is designed for:

- Engineers, managers and contractors who are responsible for highly critical systems like UPS and CRAC systems, etc. in data centre.
- Data Centre engineers and managers from the industries of banking, financial investment, IT.

Advisory Board

Board Director

Dr C M KWAN - The Chairman & Chief Assessor of Institution of Data Centre Engineers BScEng(Hons), DBA, CEng, FCIBSE, FHKIFE, FIDCE

Executive Board Members Mr Wallace CHAN BEng, MBA, MSc, FHKIConstE, MIEE

Inquiry Ms Fannie KWOK | +852 2788 6271 | fannie@hkpc.org Ms Winky YIM | +852 2788 6042 | winkyyim@hkpc.org



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Course Content		
1. Emergency Operation and Response	8. Common Breakdowns and Resolutions	
Emergency response, emergency crisis management, emergency power supply schematics	Common power and UPS power failure, genset power failure, CRAC breakdowns, no cooling water from building, AC unit	
2. M&E Plant in General	break down, temperatures too high or too low, Very Early Smoke Detection Apparatus (VESDA) system	
Basic M&E plant systems and typical communication room systems, business premises selection checklist, M&E Planned Preventative Maintenance (PPM) programme	problem, sprinkle system, FM 200 and other fire system problem, water leak, lighting and power failures, system under floor and above ceiling, plant breakdown statistics, dilapidation survey	
3. Mission Critical Systems	9. Office Area Maintenance	
UPS Systems, CRACs, CRAHs, fire suppression system, essential power systems, fire detection system, sump tanks systems	Building services, HVAC works, fire services, plumbing and drainage, lighting & power, builders work, decoration works, architectural works, structural works	
4. Maintenance Management	10. Preventive Maintenance	
Type of maintenance, different applications and maintenance policy, various plant systems inside coms room, preventive maintenance schedules, nude site survey	Critical alarms, plant monthly report checklist samples, report examinations and interpretations, breakdowns prevention	
5. Individual Plant in Details	11. Special Topic 1 - CRAC Systems	
Coms room equipment, different equipment design layouts and their pros and cons, DC plant audit checklist	Cooling methods, air-cooled plant schematics, water cooled or air cooled, cooling towers, chilled water cooled, chilled schematics, CRAC construction, CRAC operations, CRAC maintenance checklist, routine checking, CRAC PPM	
6. Operation & Maintenance Strategy	12. Special Topic 2 - UPS system	
Maintenance strategy, criteria of good maintenance, Up Time Institute Tier system, maintenance principles, data centre maintenance strategy, data centre environmental conditions, energy audit for data centre, energy saving list sample, 5-year life cycle plan, critical M&E system re-engineering	UPS function, how it provides power, UPS construction, UPS operation, operating principle, UPS setting, common Q&A on UPS, UTI Tier System revisit, UPS configurations	
7. Individual Plant in Details	New Additions	
Heating, Ventilation, and Air Conditioning (HVAC) systems, lighting & power, plumbing & drainage, fire systems revisit, M&E Handover documentation, vendor performance evaluation	Coordination and Communication, DC Documentations, Business Continuity Planning (BCP) & Drills, Energy & Efficiencies, Environmental, Health and Safety (EHS), Problem Diagnosis, Support & Outsourcing, Training, Vendor Management, New ups & CRAC equipment, etc.	

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Course Details	
Methods of Teaching	Lectures with class exercises, case studies, experience sharing and/or videos etc.
Speaker(s)	All instructor(s) are Chartered Engineer (CEng) or Bachelor Degree in a relevant engineering discipline with over 20 years relevant working experience.
Award of Certificate	Participants who have attended the course will be awarded a Certificate of Attendance by HKPC and IDCE.
Recognition of Certificate	The course is accredited by the Institution of Data Centre Engineers (IDCE) . Holder of this Certificate of Attendance will be recognised to have possessed the Professional Development Record (equivalent to Continuing Professional Development Record) of IDCE, and fulfilled the academic requirement to apply for member of IDCE (MIDCE), provided that they have sufficient work experience.

Enrolment methods

- 1. Scan the QR code to complete the enrolment and payment online; OR
- 2. Mail the crossed cheque with payee name "Hong Kong Productivity Council" (in HK dollar) and the application form to HKPC Academy, Hong Kong Productivity Council, 3/F, HKPC Building, 78 Tat Chee Avenue, Kowloon (attention to Ms Fannie KWOK).



Please indicate the course name and course code on the **back of the cheque and envelope**.

Supporting Organisations









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