建造專業進修院校 SCHOOL OF PROFESSIONAL DEVELOPMENT IN CONSTRUCTION

香港建造學院 HONG KONG INSTITUTE OF CONSTRUCTION

CITF 建造業創科基金
CITF Pre-approved Course

BAMD / BAME

Certificate in Building Information Modelling (BIM) – Asset Management for EMSD Projects

建築信息模擬資產管理(機電工程署工程)證書

To train up practitioners with the capabilities of using BIM-enabled software to manage the asset data for the Electrical and Mechanical Services Department (EMSD) projects in accordance with the latest "Building Information Modelling for Asset Management (BIM-AM) Standards and Guidelines"

根據最新的「建築信息模擬-資產管理(BIM-AM)標準及指引」對從業人員進行培訓，使其具有使用BIM的軟件來管理機電工程署(EMSD)項目資產資料的能力。

	BAMD	**BAME**
Lecturer 講師	Professionals 專業人士	
Medium of Instruction 授課語言	Cantonese supplemented with English technical terms 廣東話輔以英文技術用語	
Mode of Attendance 授課形式	Part-time day course 日間部份時間制： 09:00 to 18:00	Part-time evening 夜間部份時間制： 19:00-22:00
Duration 授課期	8 hours x 3 sessions 8小時 x 3堂	3 hours x 8 sessions 3小時 x 8堂
Admission Requirements 入學條件	Have basic BIM knowledge; **AND** (i) At least one year of work experience in construction or electrical & mechanical engineering or related industry; or (ii) Holder of Higher Diploma in building/ architectural studies, or structural/ mechanical/ electrical engineering/ quantity surveying, or other construction-related discipline; or equivalent qualification; or (iii) Technician Trainee under the EMSD Technician Training Scheme. 必須具備基本的BIM知識；以及 (i) 不少於1年建造或機電工程經驗；或 (ii) 擁有與建造/建築/結構工程/機械/電機工程/工料測量或任何與建造業相關學科的高級文憑或以上學歷；或 (iii) 屬機電工程署技術員訓練計劃的學員。	
Award of Certificate 證書頒發	Completion certificate - Attended 21 hours or above and passed the examination 結業證書 – 出席課程21小時或以上及考試合格	
Venue 上課地點	HKIC Kowloon Bay Campus, 44 Tai Yip Street, Kowloon Bay, Kowloon 九龍 九龍灣大業街 44 號香港建造學院九龍灣院校	
Course Fee 課程費用	$2,740.00	
Enquiry 查詢課程	2100 9000 / 2100 9526	
Application Method 報名方法	Please apply online on SPDC portal 請透過建造專業進修院校的網上報名系統報名	

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Course Content **課程內容**	
1. User Interface and Basic Operation	*Discover the REVIT environment and setting, the skill of navigating and operating in BIM system.* 1.1 Difference between BIM and CAD 1.2 Revit interface 1.3 Terms used in REVIT 1.4 Mouse navigation & selection 1.5 View Cube 1.6 Ribbon, Project Browser & Properties Panel 1.7 Basic Draw and modify 1.8 Levels 1.9 Grids 1.10 Project Base Points and Survey Points
2. Overview of MEP Settings - 1	*Recognise the HVAC system.* 2.1 HVAC Systems 2.2 Air Terminal 2.3 Mechanical Equipment 2.4 Add and Modify Ducts
3. Overview of MEP Settings - 2	*Recognise the plumbing and FS systems.* 3.1 Piping/ FS Systems 3.2 Plumbing Fixture 3.3 Pipes 3.4 Modifying Plumbing pipe systems
4. Overview of MEP Settings - 3	*Recognise the electrical system.* 4.1 Electrical Systems 4.2 Wiring 4.3 Cable Track & Conduit 4.4 Panel Schedule for Distribution board 4.5 Trunking
5. View and Documentation	*Create views and compose schedules from BIM model and set up drawing sheets.* 5.1 Plan/ Elevation/ Section. 5.2 3D Views 5.3 Sheets 5.4 Tags 5.5 Annotations and Dimensions 5.6 Schedules per individual equipment 5.7 Presentation Style
6. Collaboration	*Appraise the multi-discipline coordination and work sharing system in BIM.* 6.1 Link model with Copy and monitor 6.2 Work sharing by using Workset
7. Introduction of EMSD BIM-AM system	*Understand the EMSD BIM-AM standards and guidelines.* 7.1 EMSD BIM-AM Standards and Guidelines (requirement of modelling; asset information; system information) 7.2 Object Creation Guidelines (LOD requirement; demonstration of object creation with Creation of LV switchboard and switchgear as an example) 7.3 Model & Object Naming Convention and Category 7.4 Asset Code and Zone Code 7.5 Creation of Zone in model and Zone Tags 7.6 Coding Requirement of Asset Tag and Zone Tag 7.7 Concept of Shared Parameters in BIM and EMSD standard Shared Parameters file
8. EMSD Standardised MEP Asset Data	*Examine and manage the asset information.* 8.1 EMSD Standardised MEP Asset Data templates (21+) 8.2 Manage shared parameters 8.3 Asset Information Management Platform (AIMP) through COBieLite (control of asset information and document; MEP asset in asset management) 8.4 Upload of Corporate Computer System (CCS) spreadsheet for objects not drawn in models 8.5 Asset relationship and Upload of file (Excel Template) 8.6 Preparation of O&M document (folder structure) and upload of document

9.	Interfacing/ Integrating BIM-AM System with other systems - 1	*Practice on Verification of BIM Models.* 9.1 Laser scanning for BIM model construction to existing buildings 9.2 Verification of BIM Model by 360 spherical photos
10.	Interfacing/ Integrating BIM-AM System with other systems - 2	*Practice on BIM-AM System with RFID.* 10.1 RFID tags and QR code tags Installation procedures 10.2 Types and requirements of tagging to MEP equipment 10.3 Method of RFID tag encoding (ASCII – Hexadecimal code) 10.4 General guidelines for RFID tag installation 10.5 Demonstration on EMSD BIM-AM System (remote monitoring & diagnosis; encode RFID tags; export COBieLite to BIM-AIM platform)
11.	Overview of Families	*Differentiate the REVIT families and manage shared parameters.* 11.1 Systems Families 11.2 Component Families 11.3 In Place Families 11.4 Shared Project Parameters 11.5 EMSD Asset data Template (ADT) & GUID file 11.6 EMSD Standard Shared Parameters (Type and Instance)
12.	Introduction of BIM-AM system operation	*Implement the EMSD BIM-AM System.* 12.1 User interface of BIM-AM Systems - Application and web based 12.2 Workflow of BIM-AM implementation in new and A&A projects
13.	Summary	*Conclude the key aspects of collaboration in BIM-AM project.*
14.	Assessment	*Assess the knowledge and skills of BIM-AM in REVIT environment.*