

## Vircon BIM Training – Advance Level for BIM Practitioners

### Introduction

Autodesk Dynamo allows Revit users to build custom tools to solve their modeling challenges in a smarter, faster way. This 15-hours comprehensive course will lead the participants to learn Autodesk Dynamo from basic to practical. You can generate algorithms to analyze data, read and edit data from external sources, create geometry in Dynamo, or edit geometry in Revit files - all using Dynamo's node-based visual language.

### Learning Outcomes

This training course will help you understand the basic programming concepts behind Dynamo and the expansion of architectural modeling lenses. The course will show how to build data-driven geometry, analyze the relationships between Revit elements, and how to incorporate data from multiple non-Revit sources and formats, including Excel and digital images, into a BIM environment. In addition, learn techniques to reduce modeling and document time in Revit: place families and components, adjust parameter values, and more.

Moreover, it takes you from start to finish through automating different project setup routines, including generating floor and ceiling plans, creating overall building elevations, and laying out the entire set of sheets for a project. When you wrap up this course, you'll be familiar with how to complete a Dynamo workflow that can help you tackle your BIM management work more effectively.

### Course Name

#### **Dynamo from Basic to Practical (Advance Level)**

Course Code for CITF: PBT19-018

### Course Outline

- |   |             |
|---|-------------|
| 1. Introduction                                 | (1.5 hours) |
| - What is Dynamo                                |             |
| - Navigating the interface and node library     |             |
| - Placing and connecting Dynamo nodes           |             |
| 2. Working with Data                            | (3 hours)   |
| - Understanding Dynamo's data types             |             |
| - Performing math functions                     |             |
| - Creating number lists and text strings        |             |
| - Understanding lacing                          |             |
| - Writing data to an Excel spreadsheet          |             |
| 3. Construction and Analyzing Geometry          | (3 hours)   |
| - Creating points, curves, surfaces, and solids |             |
| - Analyzing geometry                            |             |
| 4. Using Dynamo for Revit project setup         | (3 hours)   |
| - Setting up your Revit file template           |             |
| - Creating floor and ceiling plans              |             |
| - Creating elevations                           |             |
| - Placing Revit families with Dynamo            |             |
| 5. Creating sheets                              | (3 hours)   |
| - Importing Excel data to create sheets         |             |
| - Specify a title block family type             |             |
| - Look up Revit views by their names            |             |
| - Creating the sheets without views             |             |
| - Move viewpoints on sheets                     |             |
| 6. Assignment and End Assessment                | (1.5 hours) |

## **Target Audience**

1. Building Engineers working for Building / Civil Contracting Firms
2. BIM Modeler / Consultant working for Architectural, Structural, Quantity Survey and Building Services Consultancy firms, Building Project Management companies, and Developer of the Project.

## **Pre-requisite requirements**

Basic knowledge\* with hands-on experience in Revit is required;  
Completion of Basic BIM training course is preferable  
\* Please refer to Vircon BIM Modelling Practical Course – Basic Level

## **Assessment:**

Assignment and End Assessment

## **Award:**

A certificate of completion will be awarded to the delegates with 80% of attendance and passing the end assessment.

## **Max. Class Size:**

16 persons per class

## **Medium of Instruction**

Chinese supplemented with English

## **Language of Training Materials**

English

## **Duration for Training:**

7.5 hours x 2 sessions (Full Time, FT) or  
3 hours x 5 sessions (Part-time, PT)

## **Course Fee:**

HKD3,000 per head