



## E-LEARNING

100% online. May include pre-recorded session, live streaming/webinar and discussion forum, where applicable.

### ONLINE LEARNING VIA WEBINAR:

**DATES:** 12 & 13 Apr 2022

**TIME:** 9.00am to 5.30pm

**DELIVERY MODE:** e-learning via webinar and BCAA Learning Management System (LMS)

**FEE** (incl of GST):

S\$1,400.00 (without funding)

### AWARD

e-Certificate of Attendance (e-COA) will be awarded to participants who meet the attendance requirement.

### CPD POINTS

PEB: -

# Introduction to Smart Building Management System for FM Practitioners

## INTRODUCTION

A Building Management System (BMS) also known as Building Automation System works on cohesive digitalised communication network including communication controllers and web-enabled network to manage, control and monitor the sub-systems within a building to achieve energy efficient and comfortable environment for productivity workflow gain.

## OBJECTIVES

At the end of the course, participants should be able to:

- Describe the fundamentals a BMS
- Identify the types of communication protocol, features and functions
- Describe how HVAC systems integrate with BMS and controls are used
- Explain logic programming and identify basic programming techniques
- Set schedules and alarms
- Review data trends
- Identify the ways cloud based BMS is changing the SMART FM industry

## CONTENTS

### BASICS OF BUILDING MANAGEMENT SYSTEM

- Introduction to BMS, IBMS & Intelligent Buildings
- Components of BMS
- Features and Functionality
- Basic Instrumentation & Measurement in BMS
- Sample BAS architecture

### COMMUNICATION PROTOCOLS

- Types of sensors – Purpose & Functionality
- Communication Techniques
- Basics of Networking

### HVAC AND BMS SYSTEMS

- HVAC-Environment-Systems-Controls
- Control Elements
- Control Systems
- Air handling Unit and BMS – Example
- Water Cooled Chillers and BMS - Example

### INTERPRETATION OF LOGIC PROGRAMMING

- Data Flow Analysis
- Module and Logic Block Analysis
- Modify a Standard Application
- Troubleshooting Tips
- Overview of Controller Configuration Tool Concepts
- Setpoint Determination
- State Based Control

### BMS ADVANCED FEATURES

- Scheduling
- Alarms
- Trending

### FUTURE OF BMS

- Overview of new IoT platform - Cloud-based BMS
- Tagging Schema - Brick, Haystack
- Cybersecurity

## LECTURERS

Expert trainers/practitioners from leading global organization in the built environment

## TARGET AUDIENCE

Facilities Technician, Technical Officer / Executive, Building Supervisor, Building Officer / Facilities Officer / Property Officer, Building Executive / Facilities Executive / Property Executive and Facilities Manager / Facilities Engineer



### REGISTRATION

To register, please log into our Online StoreFront (OSF) at <https://eservices.bcaa.edu.sg/registration/#/> Login or scan QRcode and search for course code **80072**