

# Geotechnical Instrumentation for Engineers

BCA ACADEMY

## INTRODUCTION

A good geotechnical monitoring instrumentation system with proper protection, recording and data analysis could avoid catastrophic site incident. These instrumentations play an important role in design verification and safety monitoring especially during construction stage. The recorded data are also useful for big data analysis for prediction of future movement. Therefore, it is of foremost importance that engineers should be equipped with the knowledge on the different functions and limitations of geotechnical instrumentations, their installation method and how the readings are acquired so they could better plan and design the system to get their desired data. This course will cover the essential knowledge of selecting the right type of instrument and also the skill to interpret the readings obtained, the good practices in installation of the instruments and statutory requirements.

## CONTENTS

- Introduction to geotechnical instrumentation
- Statutory requirements on instrumentation & monitoring
- Purpose and selection of geotechnical instruments
- Planning and designing instrumentation monitoring programme
- Good practices in instrument installation, monitoring and protection
- Roles and responsibilities of project stakeholders
- Monitoring data, interpretation of instruments readings, review levels & action plan
- Innovation in Geotechnical Instrumentation



## LECTURER

**MR LIAU KENG CHUNG** is Business Manager of Fugro Singapore Land Pte Ltd, part of the world's leading provider of geo-intelligence and asset integrity solutions for large constructions, infrastructure and natural resources. He has 14 years of experience in project management of geotechnical instrumentation, building instrumentation and geotechnical investigation. He involved in major LTA MRT projects such as MRT Circle Line Stage 5, Downtown Line Stage 2 & 3, Thomson-East Coast Line Package C and Extension at Changi Terminal. Besides conventional instrumentations, Mr. Liao is also familiar with latest innovation technologies for remote surveying and automated monitoring in instrumentation.

## TARGET AUDIENCE

- Practicing engineers
- Supervisors such as REs, RTOs
- Geotechnical Specialist such as SIEs, IEs, TOs
- Other who wish to gain knowledge on geotechnical instrumentation



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 **73064**



## DETAILS

**Date:** To be advised

**Duration:** 4 evenings (12 hours)

**Time:** 6.30pm to 9.30pm

**Venue:** BCA Braddell Campus

**Fee** (incl of GST): S\$800.00

Refreshments will be provided.

*In keeping with our green and sustainable practices, course notes will be available in e-format.*

## ASSESSMENT & AWARD

Participants must achieve at least 75% attendance to sit for the 30mins examination at end-of-course. Those who pass the examination will be awarded the e-Certificate of Successful Completion (e-CSC). Participants who did not pass the examination will be issued with the e-Statement of Attendance (e-SOA).

## CPD POINTS

PEB: -