


CPD Series: Signalling Control Table Design and Test Knowledge

Course Code: SC 24-017

18 October 2024 (Friday), 7:00 pm – 10:00 pm

 (In case of adverse weather, course will be rescheduled to 25 October 2024 (Friday), 7:00 pm to 10:00 pm)

Objectives and Learning Outcomes

This course aims to provide participants in-depth knowledge in signalling control table design and test.

Upon completion of this course, participants will be able to:

- Understand how to set a signalling route and call a point machine through a number of relay logic circuit sequences.
- Understand how to normalize a route through trains passing through and by route button pull with or without approaching train.
- Understand how the relay logic circuits and Solid State Interlocking (SSI) data are implemented according to the control tables.
- Understand what tests will be conducted before an interlocking system is put into service.

Who Should Attend

Those who are interested in railway signalling technology in design, test and commissioning aspects.

Pre-requisites

Participants with signalling knowledge and practical experience are necessary.*

Language

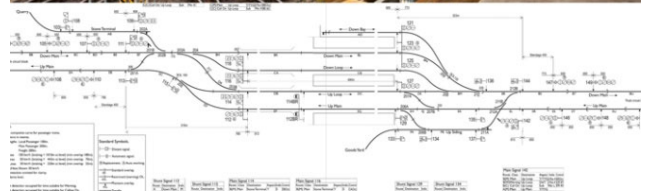
Cantonese with English terminologies (with presentation slides in English)

Venue

MTR Academy - Hung Hom Centre, Kowloon, Hong Kong

Mode of Learning

Classroom lecture and discussion



Course Structure

This course covers the following major topics:

- Route Relay Interlocking (RRI) principles and related relay circuit sequence for route setting
- Relationship between control tables design and signalling circuits on-site implementation
- Introduction of how the Solid State Interlocking (SSI) performs the safety function in Interlocking design to ensure same integrity of RRI
- What tests will be done in the signalling circuit during implementation stage
- How to do the signalling system control tests (Signal, Route & Point Machine) before a signalling system is put into service to ensure the signalling circuit is implemented according to the control table design

Speaker



Ir Timothy Y. T. Tai
MSc, BSc,
FIRSE, MHKIE, MIET,
CEng, MIEAust,
CPE(NER), APEC
Engineer IntPE(Aus),
Chairman of IRSE (HK)

Timothy Y.T. Tai (Tim) is a professional signal engineer with over 40 years of experience in maintenance, implementation, design; test and commissioning of relay interlocking, Computer Based Interlocking, Automatic Train Control and Communications-based Train Control (CBTC) systems. He is currently employed as a consultant for the New ATC Replacement Project for the Urban Lines in HK. Prior to this post, he was the Signalling & Electronic Control Engineering Manager tasked with the responsibility of design, implementation, test & commissioning of modification for the Signalling & Electronic Control system in Operating Railway and the on-coming new line interfacing systems.

Tim has an MSc in Computer Science and is a member of MIET, MHKIE and FIRSE (by examination) with Chartered Engineer (IET) and MIEAust, Chartered Professional Engineer, National Engineering Register (NER) APEC Engineer IntPE(Aus).

Tim also has an IRSE licence to carry out work in the categories 1.1.150Dv2 (Signalling Principles Designer), 1.3.180v1 (Signalling Principles Tester) and 1.3.190v1 [Tester in Charge(S)]. He was appointed as the IRSE Workplace Assessor and Competence Assessor for related and various categories. He is an active Committee Member of IRSE (HK Section) and provided tutorials to the examiners in the UK annual IRSE examination in the past.

Tim was a visiting lecturer in Hong Kong Polytechnic University and conducted Signalling and Train Control systems for MSc course in year 2009, 2013 and 2019. He was also a visiting lecturer for MTR Academy from 2017 to 2022.

Certificate of Attendance

Each participant will receive a certificate of attendance showing 3 hours upon successful completion of this programme. (Remarks: This course equivalent to 15 CPD points as accredited by CILTHK.)

| Programme Fee | Early Bird Fee | Discount Scheme |
|---------------|---|--|
| \$720 | \$648 (Paid registration on or before 6 October 2024) <small>^Rounded up fee</small> | 15% off for <ul style="list-style-type: none">– members of supporting professional bodies[^]– full time staff of MTR and its subsidiary companies[^]– full-time students (Senior Secondary or above) [^] Latest details, please refer to our webpage |

Application Methods

Online

Applicants can enrol and online payment by credit card at <https://www.mtracademy.com>

Enquiry in Person

Address: MTR Hung Hom Building, 1/F., 8 Cheong Wan Road, Hung Hom, Kowloon

Opening hours: Monday - Friday 9:30am – 7:30pm; Saturday: 9:30am – 12:30pm

Closed on Sundays and Public Holidays

Closing Date for Registration

Please note that due to limitations of venue capacity and relevant logistics, all registrations must be made at least 2 working days prior to the delivery date of individual modules. No walk-in registration will be entertained.

*MTR Academy reserves the right to turn away successfully enrolled individuals who do not meet prerequisite.