

# Advanced Traffic Signal Design

Duration: 3 days

## Overview

This course would typically suit anyone who is involved with traffic signal design and would like to further their skills in this area. More information is available under 'Course Content'.

## Who Should Attend

Anyone who is involved with traffic signal design and would like to consolidate and expand their experience in signal design.

## Pre-requisites

Attendance of the Introduction to Traffic Signals JCT course or equivalent experience. Ideally delegates will have also previously attended a LinSig Computer Workshop however this is not totally essential.

## Course Content

This is a three day course which looks at the more intricate design processes available to engineers. The course will highlight the design techniques available to squeeze extra capacity and efficiency from junctions using signalling methods and geometric configurations. The course uses a combination of lectures and practical workshops using manual and computer based techniques. In particular, some of the basic and advanced features in LinSig 3 will be used to teach advanced design techniques.

The course will include phase based design, interstage design, staging strategies and a look at more complex issues such as ripple changing, parallel stage streaming and the logic involved in controller stage change decisions, including an introduction to Boolean Logic. Further design techniques will be considered which involve the use of demand dependency and the importance of stage choice in efficient junction design. Much emphasis is placed on the ordinary practical aspects of signal control as routinely applied by experienced practitioners. There will also be an introduction to the design and optimisation of signalled roundabouts which is taught in greater depth on the JCT Signalled Roundabout Design course.

The course content includes the following:

- Detection, Control Strategies & Mode Priority
- Designing for Capacity, Efficiency and Safety
- Designing for pedestrians, cyclists and Public Service Vehicles
- Signalled Roundabouts
- Application of Phase Delays
- Interstage Design
- Improving Junction Performance: Stages, Stage Order, Intergreens, Ripple Changing, minimising wasted time, Dummy Phases, Pedestrian clearances, Parallel/ Serial stage streaming, Event and time based CLF plans, UTC, SCOOT and a consideration of international variants such as SCATS.
- Phase Based Design
- Design Projects using a combination of manual and computer based techniques

## Accreditation

All JCT courses are ?Approved? or are pending ?Approval? by the Institute of Highway Engineers and attendance is therefore recognised by the IHE and many other bodies as evidence of Continual Professional Development (CPD).

Courses are managed under a ISO9001 Quality Management System.



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*The information presented here is kept as accurate and up to date as possible, nevertheless, course arrangements are sometimes changed and we advise all delegates to check the website or contact us directly to confirm course details a few days before courses start. All course prices include tuition, lunch and refreshments, however, accommodation is excluded from course prices except where indicated. All prices exclude VAT, GST, or other sales tax as applicable.*



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