



Traffic and Transport Survey Techniques

Overview

Traffic data is an essential input to any highways traffic and transport project. There are two broad categories of data collected - quantitative data and qualitative data. This course provides an introduction to both types of data collection as well as looking at statistical considerations and innovative methods of data collection. The costs, advantages, disadvantages and limitations of the various survey techniques available to the practitioner are explored.

Learning outcomes

On completion of the course, delegates will:

- have an understanding of the basic characteristics of traffic flow
- be aware of the issues involved in organising and collecting various types of traffic flow and parking data
- be capable of summarising and reporting on traffic data collected
- be acquainted with the use of a range of traffic survey equipment
- be aware of developments in traffic data collection

Who should attend

The course is suitable for those who have recently started working in transport and traffic planning and those responsible for the management or commissioning of data collection who are looking for a broad overview of techniques and issues.

Topics Covered

- Reasons for undertaking surveys
- Overview of different survey techniques and equipment used
- Costs, advantages, disadvantages and limitations of commonly used survey methodologies
- Practical considerations for planning and conducting surveys
- Analysing and presenting data

Detailed consideration of:

- Automatic traffic counts
- Manual counts
- Video surveys
- Turning counts
- Journey time surveys
- Queue surveys
- Parking surveys
- Automatic number plate recognition (ANPR)
- Public transport surveys
- Pedestrian and bicycle survey techniques
- Market research
- Origin and destination surveys

Illustrated throughout by case studies and group work.

Sessions Outline*

Background

Why undertake transport and traffic surveys? Who wants the data and what do they use it for? Overview of the different types of survey. Time periods. Vehicle classifications. Permissions. TRICs, TRAVL.

Automatic Traffic Counts

Permanent and temporary counters. Types of counters, how they work, their applications and limitations. Outputs, data harvesting. Costs. Case studies.

Manual Counts and Video Surveys (not ANPR)

Types of survey, application, designing and planning the survey, equipment. Advantages, disadvantages and limitations. Collecting, transcribing and presenting data. Costs. Case studies.

Turning Counts, Journey Time Surveys and Queue Surveys

Different techniques, costs, limitations, equipment, planning the survey, presenting data. Case study.

ANPR and Parking surveys

ANPR technology, applications, limitations. Equipment for undertaking and processing the survey. Outputs. Common parking scenarios and survey options. Case studies.

Market Research and Public Transport Surveys

Reasons for undertaking, uses, sampling, design principles. Quantitative methods, qualitative methods. Focus groups and stated preference. Costs and limitations. Case study.

Origin Destination Surveys

Purpose. Types of survey (number plate, RSI, household, workplace, public transport interview, bluetooth/mobile phone tracking) and cost. Planning and conducting large multi modal O/D surveys (communications, managing the media, staff training, liaison with emergency services, traffic impacts, postcards). Data coding and analysis. Traffic management considerations for site layouts.

Data Analysis

Statistical analysis, sampling, confidence intervals, probability distributions. Case study and worked examples (delegates should bring a lap top with excel installed).

Group Exercise

Planning surveys for a given scenario.

*Please note that this is a preliminary outline and is subject to change

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Terms and Conditions

1 Registration Form

Applications should be made on the official registration form. Photocopies are accepted. One form should be completed for each delegate attending an event. It is important that all sections are completed legibly. Delegates are advised to retain a copy of the registration form for reference before sending.

2 Fees

Fees include attendance at lectures, lecture notes, lunch and all refreshments unless otherwise indicated.

Fees do not include overnight accommodation, breakfast and evening meals unless stated or otherwise indicated.

3 Acknowledgement

Receipt of a registration form will be acknowledged by email, delegates will be sent an invoice and an email of acknowledgement. Joining instructions, including a map, will be sent to each delegate by email approximately two weeks before the start of the event.

4 Payment

Unless otherwise stated payment in full must be made at the time of booking. All prices are exclusive of VAT, unless stated otherwise.

5 Cancellation

All cancellations, or alterations to a booking, must be received in writing. To avoid cancellation penalties, substitutes will be accepted at any time, if notified in writing and in advance of the event. Adjustments in fees will be made if there is any change in fee category. Cancellations received in writing up to 14 days before an event will be subject to an administration fee of £75 + VAT or the event delegate fee, whichever is the lower. Cancellation within 14 days of the event date or a 'no show', will be liable for the full fee.

6 Disclaimer

PTRC reserves the right to vary the programme and to cancel an event if it is under subscribed or for any other reason. In the event of cancellation, where reasonably possible, PTRC aims to give delegates at least two weeks' notice and the fee will be refunded in full. PTRC will not be held liable for any pre-booked travel, accommodation or similar costs incurred under any circumstances whatsoever.

7 Data Protection

Details will be held on a database in accordance with the 1998 Data Protection Act. Information will be used for internal marketing purposes only and will not be shared with any external organisations.

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