Instrumentation Engineer

Testing

Aim

This course is intended for technical investigation staff who may be required to use complex test equipment on the signalling infrastructure.

Key Features

- Hazards associated with the connection of test equipment
- Requirements of Network Rail Standard “Use of Monitoring and Test Equipment”
- Additional discussion of accuracy of readings and modern monitoring technology
- Case studies of the specific test equipment used by the client
- The course avoids word-for-word reading of standards in favour of deep and
- interactive discussion of the pertinent issues, to aid intelligent application of the standards in the workplace

Course Outcomes

- On successful completion of this course, the delegate will be able to:
- Select the correct instrumentation
- Demonstrate an understanding of the types of instrumentation available
- Demonstrate an understanding of the risks and limitations associated with its use
- Demonstrate an understanding of the importance of instrument calibration
- Perform short duration attended tests
- Perform temporary unattended monitoring
- Correctly implement testing, including making connections
- Make non-intrusive measurements
- Assess likely effects upon the circuits under test
- Demonstrate an understanding of instrumentation power supplies and fusing
- Assess existing equipment and systems before starting

Assessment and Certification

Achievement of the Course Outcomes will be assessed by a knowledge assessment.
The delegate’s achievement of the Course Outcomes will be confirmed by a certificate which will be forwarded to the nominated client contact following the course.

Pre-Requisites

Delegates MUST hold a valid SMTH certification and proof will be requested at the start of the course.

Practical Information

Duration: 2 days
Location: at our Derby training centre, or on your premises. Maximum number of delegates: 6

This course is produced and run by Signet Solutions.
For further information contact us:
enquiries@signet-solutions.com
www.signet-solutions.com
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Course Progressions

We offer many signalling technical courses, and it can be difficult to work out what's best for your needs. The following table will assist you.

*Development Courses in green text

These courses typically form the backbone of a career development path, and are usually taken in the order shown.

Available on an "open" basis, in which you can take individual places from our regular timetable.

*Supplementary Courses in blue text

These courses provide supplementary knowledge about a specific technology or process. They can generally be taken on an "as needed" basis, without any particular order.

Available on a "private" basis, in which you sponsor the delivery of a full course. This works better for four or more delegates.

This is just a quick guide – please consult our individual course specifications for more detailed information. Please ask us if you have any queries.

Signal Maintenance & Signal Installation	Signal Design	Signal Works Testing
Introduction to Signalling/ Basic Signalling 1 & 2	Basic Signalling Technology Intermediate Signalling Technology Layouts Intermediate Signalling Technology Control Tables Advanced Signaling Technology	Introduction to Signalling/ Basic 1 & 2 Mod 5 - Test Assistant Mod 3c - Verification Tester Mod 3BL - Functional Tester Mod 4 - Functional Tester Mod 2 - Principles Tester Mod 1 - Tester in Charge

SMTH - Signalling Maintenance Testing Handbook
Appreciation Route Relay Interlocking - Maintenance + Faulting
Route Relay Interlocking Design Clamp Lock Installation
Clamp Lock Maintenance
Cable Jointing
Suplementary Back Drives + Stretcher Bars
EISS Electrical Installation Skills
Electrical Principles
Style 63 Points Installation
Style 63 Points Maintenance
Westpac MK111A Maintenance + Faulting
HW100 Points Maintenance
EBI Track 200/T121 Track Circuits
Fault Finding Techniques
Mechanical Signalling
Route Relay Interlocking
Route Relay Western Region E10k Circuitury Correlation
Westpac MK11A - Design
Location Design Project
Level Crossing Design
SSI Appreciation
SSI Control Tables
SSI Data Appreciation
SSI Data Preparation
Route Relay Interlocking - Mod 3BI
Westpac MK11A - Testing