Comprehensive Train Accident Investigation Techniques

2027 □□□□ 27 – 23
Istanbul (Turkey)



Comprehensive Train Accident Investigation Techniques

Ref: 20220307_222322 Location: Istanbul (Turkey) Fees: 4900 GBP

Course Description

This intensive 1-week course equips participants with advanced skills for conducting comprehensive train accident investigations. Covering legal frameworks, investigation methodologies, evidence handling, and root cause analysis, the program emphasizes practical application through case studies and hands-on exercises.

Learning Objectives

- Understand rail safety laws and investigation protocols
- Master evidence collection and preservation techniques
- Apply root cause analysis methods to identify accident factors
- Develop clear, objective investigation reports
- Implement effective safety recommendations based on findings

Course Modules

Day 1: Foundations of Rail Accident Investigation

- Legal frameworks and industry standards
- Types of rail accidents and their classifications
- Initial response and scene management
- Investigation team roles and responsibilities

Day 2: Evidence Collection and Analysis

- Physical evidence gathering techniques
- Digital data collection and analysis
- Witness interviewing strategies
- Evidence preservation and chain of custody

Day 3: Root Cause Analysis Methodologies

- Human factors in rail accidents
- Systemic and organizational contributors
- Fault tree analysis and FMEA techniques
- Timeline reconstruction methods



Day 4: Advanced Investigation Tools and Techniques

- 3D scanning and accident reconstruction
- Metallurgical and materials failure analysis
- Simulation and modeling in investigations
- Data analysis and pattern recognition

Day 5: Reporting and Safety Recommendations

- Structure and components of investigation reports
- Effective data presentation and visualization
- Developing actionable safety recommendations
- Communicating findings to stakeholders

Practical Wins for Participants

- Ability to lead complex train accident investigations
- Enhanced skills in evidence analysis and root cause determination
- Improved report writing and recommendation development
- Network with industry experts and peers in rail safety

