

Accident Reconstruction: Momentum & Lidar Scans

Learn to secure accident scenes, gather evidence and reconstruct collisions using on-scene measurement, lidar and momentum calculations.

5 Days

DURATION

36

TOPICS

COURSE OVERVIEW

This course covers traffic accident terminology and the principles of on-scene investigation, followed by securing the scene, investigator safety and the use of drones and lidar technology. It then addresses evidence identification and verification, including traces and marks found on vehicles, before moving into measurement equipment, procedures and the investigation of road design, rollovers, and pedestrian and animal collisions. It concludes with traffic accident reconstruction, covering software and unmanned aerial vehicles, collision analysis such as driver reaction time and braking-mark speed determination, and conservation of momentum calculations.

WHO THIS COURSE IS FOR

Accident Investigators

Traffic Police Officers

Forensic Engineers

Insurance Claims Assessors

Road Safety Analysts

LEARNING OBJECTIVES

- Explain traffic accident terminology and factors of traffic safety
- Describe principles of on-scene accident investigation
- Apply scene security and investigator safety procedures
- Identify evidence traces before, at and after the point of collision
- Analyse damage, material and wiping marks found on vehicles
- Apply measurement equipment and procedures during scene investigation
- Assess road design and construction elements influencing accidents
- Calculate vehicle speed using momentum and braking-mark analysis

36 Topics

DAY 1 Introduction, Terminology and Principles

TOPICS

Introduction and Traffic Accident Terminology

FACTORS OF TRAFFIC SAFETY

Human · Vehicle · Road · Environment · Legal

Principles of the On-scene Investigation

DAY 2 Securing the Scene of the Accident, Evidence Identification and the On-scene Measurement

TOPICS

Securing the Scene and Investigator Safety · Impact - crash Phases · Principles of the On-scene Investigation · Using Drones and Lidar Technology

DAY 3 Evidence Identification, Preservation and Verification

Evidence Identification

TOPICS

- Traces that appear before the Point of Collision
- Traces that appear at the Point of Collision
- Traces that arise after the Point of Collision

Accident Evidence Found on the Vehicles

TOPICS

Damage Marks · Material Marks · Wiping Marks · Casting Marks · Abrasion, Melting Marks · Seatbelt Examination
Evidence Verification

DAY 4 On - Scene Measurement

TOPICS

- Measurement Equipment and Measurement Procedures
- Measuring Damages on the Vehicles
- Investigation of the Road Design and Construction Elements Influence
- Characteristics of Rollovers On - scene Investigation
- Characteristics of Pedestrian and Animal Collision On - scene Investigation

TOPICS

- Using Software and Additional Resources
- Using Unmanned Aerial Vehicles for On-scene Investigations

COLLISION ANALYSIS AND RECONSTRUCTION

- Driver Reaction Time
- Determining Speed from the Braking Marks
- Safe Following Distance
- Calculating Speed of the Vehicle Lost due to the Damage in the Crash
- Conservation of Momentum Calculations for Accident Reconstructions
- Calculating Speed of Rollover
- Pedestrian Collision Calculations
- Motorcycle Accident Reconstruction

WHAT IS INCLUDED

Everything You Need to Succeed

- Koenig course material for every module
- Delivery by certified instructors and subject matter experts
- Hands-on exercises throughout the course
- Course completion certificate from Koenig

ABOUT KOENIG

Who We Are

Established in 1993, Koenig Solutions is a globally recognised training provider with 35+ technology partnerships, 5,000+ training programmes and a network of certified instructors and subject matter experts, supporting individuals and enterprise teams worldwide.

FLEXIBLE DELIVERY

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