



Collision Analysis & Road Safety Performance

Comprehensive and certified training

**Online Training
May 29 – June 7, 2023**



Online Training

16 Professional Development Hours



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Online Workshop

Background

Millions of road crashes occur throughout the world every year. A car crash may have ten or more events that could be the cause. The goal of collision analysis is to identify these causes in order to understand their complexity and to realize that most car crashes are preventable by eliminating one or more of these causes.

Safety performance determines how and why these failures occur on a road network, even in the absence of robust crash data, and gives additional answers to determine what can be done to prevent similar incidents in the future and build more robust economic cases supporting road safety investments.

Why Online?

- Earn 16 Professional Development Hours
- Expert training by professionals for Professionals: access IRF's unique curriculum and lectures developed by world-class specialists
- Accelerated learning processes: get up to speed and gain new insights in less time and with no travel constraints
- Full access to learning materials and session recordings
- Small classrooms & scheduled One-on-One sessions with instructors
- Self-paced options available
- Interactive group projects and case studies
- Receive IRF Certification



IRF Global is now recognized as an **approved training provider** by the Chartered Institution of Highways and Transportation (CIHT), a respected professional body that provides transportation professionals with recognition, support and business insights to accelerate their careers and influence the future of the sector.

Format

The lectures will be taught over a two-week period with live 2,5-hour on-line sessions held Monday through Wednesday. Upon completion of the training program, the IRF will administer an on-line knowledge test. Participants with a score of 80% of the exam will be awarded with a certificate verifying their successful completion of the course.

Learning Objectives

- ✓ Focus on road deficiencies that lead to severe and fatal injuries
- ✓ Identify the different network safety management tools available to practitioners as they apply to all users of the road network
- ✓ Understand the holistic approach of vehicle crashworthiness and the role of crash Investigations in improving road safety
- ✓ Understand the scope of, and correctly utilize national and international reference manuals
- ✓ Identify data sources available to support decision making and how to overcome integrity & quality issues
- ✓ Better undertake and recommend remedial actions and preventive measures to stop crashes from happening again

Target Audience

- National Road & Transport Agency Executives
- Highway Engineers and Managers
- Federal and State Road Safety Agencies
- Road Safety Professionals
- Private Consultants & Contractors

Lead Instructors



Dr. Rob Thomson, Professor of Vehicle Safety, Chalmers University

Dr. Thomson's research in road safety began in 1988 when he began post graduate studies with the UBC Accident Research Team in Vancouver, B.C., Canada. Since then he has worked in almost all areas of road and traffic safety. Crash testing, accident analysis, numerical modeling, and analyzing vehicle test data have been his methods to understand why and how we are injured in a crash



Dr. Omer Qureshi, Automotive Design and Crashworthiness Research

Dr. Qureshi is a scientist who specializes in the field of crash investigations. Over the years of research and practice, he has developed state of the art methodologies of investigations, reporting and wreckage forensics that can compete with the best in the world. Currently, his research center, ADCR serves as investigators for all high-profile cases in Pakistan. He also teaches this subject to the trainers of National Highway and Motorway Police in Pakistan and other organizations.

Schedule

Monday through Wednesdays (8:00 AM– 10:30 AM US EDT, 14:00 – 16:30 CET, 17:00-19:30 GST)

Session 1	Introduction to Safety Performance & Crash Analysis <ul style="list-style-type: none">• What the "Safe System" means for safety performance assessments• Root Causes & Sequence• Fundamentals of Vehicle Collisions• Pre-Crash, Crash and Post-Crash Factors• Current and future crash data recording systems
Session 2	Crash Investigation Primer – Vehicle & Tire Failures <ul style="list-style-type: none">• How Crash Investigators work• Contemporary vs. Conventional Methods• Vehicle & Tire Failure Analysis• Rules of Vehicle Investigation• Principal Force Direction• Vehicle Orientation• Induced vs. Direct Damage• Case studies
Session 3	Crash Investigation Primer – Road Analysis & Digital Forensics <ul style="list-style-type: none">• Point of first perception• Estimated point of reaction / Point of actual reaction / Point of collision• Final resting positions & position of debris• Roadway Damage• Introduction to Digital Forensics (Geo-Tagging, Video & Audio Authentication)
Session 4	Making Sense of the Data <ul style="list-style-type: none">• Road Safety Crash Data Analysis• Predicting Road Risk Using GIS
Session 5	Measuring Road Safety Performance <ul style="list-style-type: none">• Methods of measuring safety• Safety Performance Functions• Crash modification factors
Session 6	Building an Investment Case for Road Safety <ul style="list-style-type: none">• Road safety impact assessments• Network Screening Methods & Case Studies• Black Spot Management Programs

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International Road Federation

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