



Dr Richard Ellwood BEng (Hons) EngD CEng MIET MITA

## CURRICULUM VITAE

### INTRODUCTION

Dr Richard Ellwood is a Principle Consultant at pForensic. He has a degree in Automotive Engineering and an Engineering Doctorate. He is also a Chartered Engineer and Member of the Institute of Traffic Accident Investigators.

Dr Ellwood's expertise includes all aspects of collision investigation and reconstruction, and he provides lectures on CCTV analysis. He specialises in cases involving engineering failures, motorcars, motorcycles, pedestrians and night-time incidents.

### CASEWORK OVERVIEW

- Over 25 years professional experience investigating engineering incidents and road traffic collisions.
- Extensive court experience in UK, NI, IRE, International.
- Police advanced car driver and advanced motorcyclist.
- Personal injury, pedestrians, cyclists, motorcycles, passenger cars, HGVs, highway structures.
- Laser scanning and computer simulation.
- Vehicle examinations.
- Vehicle data (Diagnostics and Event Data Recorders, Insurance black box).
- 3D modelling and computer simulation.
- Component Failure Analysis.
- CCTV analysis.
- Human Factors.
- Research and validation of advanced CCTV analysis techniques.

## PROFESSIONAL PROFILE

Dr Ellwood deals with multi-million-pound claims for major UK solicitors (Claimant and Defendant representatives) and insurance companies.

His expertise has been accepted in the UK and Irish Courts. Internationally, Dr Ellwood has been recognised as an expert in Gibraltar, Southern Ireland and Hong Kong. Dr Ellwood is experienced in giving evidence in Court for both Civil and Criminal proceedings working with UK police forces, major UK solicitors and insurance companies.

Dr Ellwood is a part-time lecturer in CCTV analysis and has taught the UK police, the Irish Garda and other UK civilian experts.

Early in his career, whilst working in the research laboratories of British Steel / Corus Dr Ellwood investigated the automotive applications of steel, evaluating design, manufacturing procedures and durability. He also investigated the performance of base materials, components and auto bodies with respect to their welding, fatigue, forming, and impact and crush characteristics.

Dr Ellwood has conducted in-depth industrial failure analysis investigations into various components and plant equipment, becoming familiar with and trained in techniques such as 'Root Cause Failure Analysis' and 'Failure Mode Effect and Criticality Analysis'.

Whilst in the Police Service as a Road's Policing Officer, he attended and investigated numerous road traffic collisions ranging from non-injury minor collisions through to those with fatalities.

Dr Ellwood is an experienced vehicle examiner, documenting and evidencing collision damage, seatbelt usage and defects. He is also qualified to download and analyse data from a vehicle's Event Data Recorder using the Bosch CDR tool.

Dr Ellwood has carried out site visits for collision and health and safety incidents employing techniques including reconstruction, 3D laser surveys, photogrammetry and drone surveys.

Dr Ellwood has analysed and reconstructed numerous serious and fatal collisions, and health safety incidents using scene data, Newtonian physics and computer modelling / simulations, with considerations such as line of sight, human factors and vehicle defects being considered.

Dr Ellwood has conducted failure analysis investigations into failed components identifying whether they failed before or during an incident. He has considered mechanical defects and determined their likely contribution to an incident. The investigations have included:

- Engines
- Gearboxes and differential
- Suspension components
- Brake components
- Tyres
- Steel structures
- Bicycle wheels and frames
- Cranes and lifting platforms

## ACADEMIC CREDENTIALS AND PROFESSIONAL AFFILIATIONS

Qualification/Affiliation	Location	Date
HND Automotive Engineering	Bolton Institute of Technology	1993 - 1995
BEng (Hons) Integrated Engineering	Sheffield Hallam University	1995 - 1998
Engineering Doctorate (EngD)	University of Wales, Swansea	1998 - 2002
Chartered Engineer (CEng)	Institution of Engineering and Technology (IET)	2015
Member of Institute of Traffic Accident Investigators	-	2023

## PREVIOUS EMPLOYMENT

Position	Location	Date
Research Engineer	Corus Strip Products, Port Talbot	1998 to 2002
Reliability Engineer	Corus Strip Products, Port Talbot	2002 to 2005
PC/TPS Response / Roads Policing	Gwent Police	2005 to 2013
Consultant	GBB (UK) Limited	2013 to 2021
Head of the Large Loss Team	GBB (UK) Limited	2021 to 2024
Part-time lecturer	De Montfort University / AiTS	2021 to Present
Principle Consultant	pForensic	2024 to Present

## SPECIALISED TRAINING

Course	Location	Date
Police Vehicle Examination and Prohibition (PG9)	Avon and Somerset Police	2009
Forensic Examination of Vehicle Lamps	Sheffield Hallam University	2011
UCPD - Forensic Collision Investigation	De Montfort University / AiTS	2011 – 2012
Forensic Collision Investigation for Police Part 1- City & Guilds	AiTS	2011
Speed from CCTV	Hague Forensic	2017
IMI Level One Hybrid / EV Awareness	IMI	2017
Bosch CDR Technician and Analyst	EUDARTS	2021
Human Factors in Traffic Crash Reconstruction	ITAI / Jeffrey Muttart	2022
Photometry – The Science of Light Metrology	Pro-lite	2023