

CURRICULUM VITAE

Richard Ellwood BEng (Hons) EngD CEng MIET



PROFESSIONAL PROFILE

Whilst working in the research laboratories of British Steel/Corus Dr Ellwood investigated the automotive applications of steel, evaluating the design and the manufacturing procedures. 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'.

Working as a Reliability Engineer, he was instrumental in the introduction of Reliability Centred Maintenance (RCM) to the Port Talbot steelworks. He managed and coordinated projects applying RCM in order to optimise plant availability, reduce maintenance costs and identify key areas where capital investment would be most cost-effective, with several notable successes.

Dr Ellwood spent five years in the Gwent Police Roads Policing Unit as a qualified Traffic Patrol Officer. He also has experience in the role of a Temporary Sergeant. As a Traffic Officer he was an advanced car driver and also an advanced motorcyclist, gaining a practical understanding of vehicle handling and dynamics to supplement his academic background.

Whilst in the Police Service, he attended numerous road traffic collisions ranging from non-injury minor collisions through to those with fatalities and was involved in scene management and the investigation of serious collisions.

Dr Ellwood conducted in-depth investigations into road traffic collisions as an Investigating Officer and Forensic Collision Investigator. He is experienced at giving evidence in Court and has an excellent track record of successful prosecutions for traffic related offences.

Dr Ellwood is currently the Head of the Large Loss team at GBB (UK) Ltd leading a team of experienced and qualified engineers. Whilst at GBB (UK) Ltd Dr Ellwood has also conducted numerous incident investigations and collision reconstructions.

Dr Ellwood is an experienced vehicle examiner, documenting and evidencing collision damage, seatbelt usage and defects. He is also accredited 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 3D laser surveys, photogrammetry and drone surveys.

Dr Ellwood has 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, reaction times, human factors and vehicle defects being taken into account.

Dr Ellwood is experienced at testing CCTV systems to confirm the operation and frame rate, and analysing footage to determine vehicle speeds and the sequence of events that resulted in an incident.

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

Following examinations, he has also provided evidence of poor or non-existent repairs and identified issues with manufacturing / assembly techniques in relation to warranty claims.

ACADEMIC CREDENTIALS AND PROFESSIONAL AFFILIATIONS

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

SPECIALISED QUALIFICATIONS

Qualification / Course	Location / Provider	Date
Bosch CDR User and Analyst Course	AiTS	2021
IMI Level One Hybrid / EV Awareness	IMI	2017
Speed from CCTV	Hague Forensic	2017
Forensic Collision Investigation for Police Part 1- City & Guilds	AiTS	2011
UCPD - Forensic Collision Investigation	De Montfort University / AiTS	2011 – 2012
Forensic Examination of Vehicle Lamps	Sheffield Hallam University	2011
Police Vehicle Examination and Prohibition (PG9)	Avon and Somerset Police	2009

EXPERIENCE AND EMPLOYMENT

Position	Location	Date
Consultant	GBB (UK) Limited	2013 to Present
PC/TPS Response / Roads Policing	Gwent Police	2005 to 2013
Reliability Engineer	Corus Strip Products, Port Talbot	2002 to 2005
Research Engineer	Corus Strip Products, Port Talbot	1998 to 2002