

Kurt Douglas Weiss

Forensic Engineer and Collision Reconstruction Specialist
ACTAR #1242

EMPLOYMENT

AUTOMOTIVE SAFETY RESEARCH, INC., Santa Barbara, CA
POSITION: Staff Engineer, Collision Reconstructionist
DATES: September 1986 to Present
DUTIES: Forensic Engineering and Collision Reconstruction. Vehicle collision damage measurements, collision site and scale mapping, seat belt forensic and compliance testing, airbag inflator tank testing, ECU collision data retrieval, photographic documentation, safety recall and product defects research, computerized collision modeling, technical report and demonstrative evidence preparation, expert testimony.

EDUCATION

UNIVERSITY OF CALIFORNIA, Santa Barbara, CA
Degree: B.S., Mathematical Sciences, 1990
Degree: M.S., Mechanical Engineering, 1993

ACCIDENT RECONSTRUCTION COURSES

COLORADO SCHOOL OF MINES, Golden, CO
Forensic Physics Applied to Accident Reconstruction, August 1993

NORTHWESTERN UNIVERSITY TRAFFIC INSTITUTE, Evanston, IL
Traffic Accident Reconstruction I, January 1994
Traffic Accident Reconstruction II, March 1994

ENGINEERING DYNAMICS CORPORATION, Beaverton, OR
EDC Reconstruction (EDVAP/ EDCRASH), April 1994
EDC Simulations (EDSMAC/ EDSVS/ EDVTS), May 1994
HVE Forum (HVE-2D EDCRASH/ EDSMAC/ EDSMAC4), May 2002

INSTITUTE OF POLICE TECHNOLOGY AND TRAINING, Jacksonville, FL
Investigation of Motorcycle Accidents, Tempe, AZ, May 1995

SPECIAL
TRAINING and
AWARDS

UNIVERSITY OF CALIFORNIA, Santa Barbara, CA
Forensic Engineering, April 1990
Human Anatomy Laboratory, January 1993

SOCIETY OF AUTOMOTIVE ENGINEERS, Warrendale, PA
Injuries, Anatomy, Biomechanics and Federal Regulations
Irvine, CA, January 1995
Low Speed Collision TOPTEC
Richmond, B.C., Canada, August 1996
Air Bag Design and Performance TOPTEC
Costa Mesa, CA, August 1997
Accident Reconstruction: State-of-the-Art TOPTEC
Costa Mesa, CA, December 1999
Accident Reconstruction TOPTEC: Special Topics
Tempe, AZ, May 2001
Passenger Vehicle Rollover TOPTEC: Causes, Prevention & Injury Prevalence
Scottsdale, AZ, April 2002

BH₂VK CRASH TESTING PROJECT
San Bernardino, CA, August 1992

VETRONIX CORPORATION, Santa Barbara, CA
Crash Data Retrieval (CDR) Training Seminar, June 2001

ACTAR Long Term Commission Accreditation, December 2001

The Burlington Northern and Santa Fe Railway Company, San Bernardino, CA
Grade Crossing Collision Investigation, April 2002

COLLISION SAFETY INSTITUTE, San Diego, CA
Crash Data Retrieval System Operator's Certification Course
Anaheim, CA, December 2003

PUBLICATIONS

"Driver Usage Patterns of Non-Motorized, Door-Mounted, Passive 3-Point Seat Belts,"
SAE Paper No. 970119. Co-authored with William Broadhead. SAE International
Congress and Exhibition, Detroit, MI, February 24 - 27, 1997

"Mechanisms of Injury in Frontal Inflatable Restraint Systems." Co-authored with
Anthony Sances, Jr. and Srirangam Kumaresan. 21st Southern Biomedical
Engineering Conference, Bethesda, MD, Sept 28 - 29, 2002.

"Examination of Seat Belt Components in Frontal NCAP Barrier Tested Vehicles," Co-
authored with William G. Broadhead. Presented at the 22nd Southern Biomedical
Engineering Conference and Symposium on Aortic Valve Sparing Surgery, Charlotte,
NC, September 2003

"Analysis of Shared Anchor Seat Belt Design." Co-authored with William Broadhead.
Presented at the 2003 ASME Mechanical and Materials Conference, Scottsdale, AZ,
June 17 - 20, 2003.

PUBLICATIONS

(Continued)

"Biomechanical Analysis of Late Airbag Deployment in Motor Vehicle Crashes." Co-authored with Anthony Sances, Jr., Srirangam Kumaresan, and William Broadhead. 2003 Summer Bioengineering Conference, Key Biscayne, FL, June 25 - 29, 2003.

"Air Bag Control Module Response to Multiple Vehicle Impacts." Co-authored with Holly A. Adams. Presented at the 56th Annual Meeting of the American Academy of Forensic Sciences, Dallas, TX, February 16 - 21, 2004.

"Forensic Testing of Shared Anchor Seat Belt Components." Co-authored with William G. Broadhead. Presented at the 56th Annual Meeting of the American Academy of Forensic Sciences, Dallas, TX, February 16 - 21, 2004.

"Evaluating the Effect of Assembly Hardware on Breaking Strength of Seat Belt Webbing." Presented at the 56th Annual Meeting of the American Academy of Forensic Sciences, Dallas, TX, February 16 - 21, 2004.

PRESENTATIONS

"Accident Reconstruction, Crashworthiness, and Biomechanics of Injury Causation." Invited speaker. Co-presented with Dr. Y. King Liu, and William G. Broadhead at the University of Northern California at Marin, Petaluma, CA, June 12 - 13, 1999.

"AIRBAGS as they relate to Accident Reconstruction, Crashworthiness, and Biomechanics of Injury Causation." Invited speaker. Co-presented with Dr. Y. King Liu, William G. Broadhead, and Henk Helleman at the University of Northern California at Marin, Petaluma, CA, November 6 - 7, 1999.

"Forensic Testing and Collision Reconstruction." Invited speaker. Presented at the University of California at Santa Barbara. Professor Noel MacDonald, ME11A, Introduction to Mechanical Engineering 1, April 29, 2002

"AIRBAGS as they relate to Accident Reconstruction, Crashworthiness, and Biomechanics of Injury Causation." Invited speaker. Co-presented with Dr. Y. King Liu, William G. Broadhead, and Holly A. Adams at the University of Northern California at Marin, Petaluma, CA, October 19 - 20, 2002

"Forensic Testing and Collision Reconstruction." Invited speaker. Presented at the University of California at Santa Barbara. Professor Eric Matthys, ME11A, Introduction to Mechanical Engineering 1, January 29, 2003

"Vehicle-to-Vehicle, Head-On Collision Reconstruction." Invited speaker. Kiwanis International meeting, Santa Barbara, CA, November 12, 2003

"Vehicle-to-Vehicle, Head-On Collision Reconstruction." Invited speaker. Presented at the University of California at Santa Barbara. Professor Anthony Evans, ME11A, Introduction to Mechanical Engineering 1, March 2, 2004

RESEARCH

"A Computer Program to Solve a System of Ten Equations that Model the Dynamics of a Two-Vehicle Collision," Master's Project, Department of Mechanical Engineering, UCSB, December 1993

CONFERENCES

M.A.T.A.I., N.A.P.A.R.S., N.A.T.A.R.I. Combined Conference
Special Problems in Motorcycle Collision Investigations
Atlantic City, NJ, October 1994

SAE International Congress and Exhibition, Detroit, MI
February 1995
March 1999

S.O.A.R., T.A.A.R.S., W.A.T.A.I. Combined Conference and Training Seminar
Charlottesville, VA, August 1995

T.A.A.R.S. 10th Anniversary Annual Meeting & Training Seminar
Mesquite, TX, May 1996

Stapp Car Crash Conference:

39th - Del Coronado, CA, November 1995

40th - Albuquerque, NM, November 1996

42nd - Tempe, AZ, November 1998

43rd - San Diego, CA, October 1999

44th - Atlanta, GA, November 2000

47th - San Diego, CA, November 2003

Annual International Workshop on Human Subjects for Biomechanical Research:

27th - San Diego, CA, October 1999

28th - Atlanta, GA, November 2000

3rd Annual CIREN Symposium
San Diego, CA, November 1999

22nd Southern Biomedical Engineering Conference and Symposium on Aortic Valve
Sparing Surgery
Charlotte, NC, September 2003

American Academy of Forensic Sciences, 56th Annual Meeting
Dallas, TX, February 16 - 21, 2004

SOCIETIES

Society of Automotive Engineers (SAE), Warrendale, PA - member since 1991

Society of Accident Reconstructionists (SOAR), Denver, CO - member since 1995

National Association of Professional Accident Reconstruction Specialists
(NAPARS), Brandywine, MD - member since 1996

California Association of Accident Reconstruction Specialists (CA²RS), San Jose, CA
- member since (2004)