

CHARAN J. MELLOR, B.S.

FORENSIC PHYSICIST

CURRICULUM VITAE

SPECIALIZED EXPERIENCE

ACTAR Accredited Traffic Accident Reconstructionist (#2186)

Involved in over 700 forensic evaluations including traffic collisions, premises liability and industrial

Auto vs. auto, bicycle, pedestrian, motorcycle, bus, and commercial vehicle/heavy truck

Impact speed and change in velocity assessment

Pre-skid and pre-impact speed evaluation

Detailed time/distance studies

Crash Data Retrieval (CDR) Technician/Analyst Certification

Collision severity

Headlight usage/hot shock assessment

Seatbelt usage

Damage consistency

Mechanical failure

Line of sight/visibility evaluations

Research including the accelerations experienced during activities of daily living and sporting activities

Instrumented helmet drop testing

Forensic mapping, total station/surveying equipment

Technical diagramming and scene mapping

Accelerometers, thermocouples, and other data acquisition instrumentation and devices

Professional photographic, video, and audio test and measurement

Advanced computer simulation/forensic animation capabilities

EXPERT WITNESS EXPERIENCE

Provided expert testimony in depositions, arbitrations and both civil and criminal court in Ventura, Los Angeles, Orange, San Diego and Kern Counties

Testified on issues including pre-braking and pre-impact speed analysis, change in velocity assessments, hot shock, time/distance analyses, specialized siren audibility testing, and forensic animation

ACADEMIC CREDENTIALS

B.S. Physics, University of California at Los Angeles, 2002

PROFESSIONAL EXPERIENCE

2010 - Present

CRASHTEAMS, INC.

A member of Crashteam's international network of crash reconstructionists

2010 - Present

EMVEE CONSULTING, INC., Thousand Oaks, CA

Forensic Physicist

Reconstruction and scientific analysis of transportation and other accidents; crash data retrieval download and assessment; seatbelt and headlight usage assessments; scientific consulting; creation of 3D computer simulation/forensic animations of various types of accidents for demonstration both in and out of the courtroom; and expert testimony

2002 – 2009

INSTITUTE OF RISK & SAFETY ANALYSES, Woodland Hills, CA

Senior Forensic Scientist, Deputy Director

Reconstruction, human factor, and biomechanical analyses of transportation and other accidents including automotive, motorcycle, heavy truck, tractor trailer, bus, pedestrian, bicycle, skateboard and other transportation-type accidents in both civil and criminal settings

Assessment of trip/slip and fall accidents including code review for potential violations, slip testing, falling items, and other premises accidents

Lead and assisting scientist in evaluating industrial cases including forklifts, powerdrive counterbalanced trucks, bobcats, light rail accidents, siren audibility; assault cases, murder, stabbings and firearm cases

Research pertaining to the accelerations experienced during daily activities, specialized activities such as golf, volleyball and horseback riding, as well as research with a low-speed impact simulator; helmet testing, evaluation of the accelerations experienced by a headform for various different helmet types

Creation of 3D computer simulation/forensic animations of various types of accidents for demonstration both in and out of the courtroom

Expert testimony in depositions, arbitrations and both civil and criminal court

SPECIALIZED TRAINING

- March 2012 SATAI Spring Meeting / Sudden Acceleration Incidents / Data Acquisition Systems / Transportation Engineering / Bicycle Collision Reconstruction
- September 2011 SATAI Crash Test Sequence #30 / Accident Investigation Approach to UTV Accidents / Mechanics of One Dimensional Planar Collisions / Analysis of Crash Sequence #30
- February 2011 Crash Data Retrieval Technician Level I and Level II Certification
- February 2011 Crash Data Retrieval Data Analyst Certification
- February 2011 Individual CDR System Operator Certification
- July 2010 SATAI Crash Test Sequence #29 / Safety in Mass Production Vehicles / Pedestrian Safety and the 2009 MUTD / EDR Data from Non-CDR Supported Vehicles
- July 2009 SATAI Crash Test Sequence #28 / Biomechanical Analysis of Rollover Crashes / Seat Belts in Rollover Crashes / "MADYMO" in Reconstruction
- July 2008 SATAI Crash Test Sequence #27 / Crash Data Presentation / Business Protocol / Current Trends in Pedestrian Reconstruction (J. Eubanks)
- April 2007 Sokkia Total Station Surveying / Mapscenes Evidence Recorder
- July 2007 SATAI Crash Test Sequence #26 / Crash Test Presentation / Heavy Truck Crash Reconstruction / Air Brake Systems on Commercial Vehicles / Low Speed Bumper to Bumper vs. Bumper to Hitch Collision Analysis
- July 2006 SATAI Crash Test Sequence #25 / Motorcycle Injuries and Biomechanics / Dynamics of Motorcycle Crashes / Crash Helmet Impact Tests, Standards and Design

PROFESSIONAL AFFILIATIONS

Accreditation Commission for Traffic Accident Reconstruction (ACTAR #2186)

Southwestern Association of Technical Accident Investigators (SATAI)

National Association of Professional Accident Reconstruction Specialists (NAPARS)