



CURRICULUM VITAE  
**JON B. LANDERVILLE, MSME, PE**

**SPECIALIZATION**

- Accident Reconstruction
- Computer Simulation and Animation
- Vehicle Dynamics and Loss of Control
- Rollover Analysis
- Traffic Signal Analysis
- Visibility Studies
- Re-enactments
- Crash Data Recorder

**EDUCATION**

- Master of Science in Mechanical Engineering (MSME)  
Hughes Master of Science Fellowship  
University of Southern California (1989)
- Bachelor of Science in Mechanical Engineering (BSME)  
Minor in Applied Mathematics  
California State University, Long Beach (1987)

**REGISTRATION**

- Registered Professional Engineer, California Number M27388
- Accreditation Commission for Traffic Accident Reconstruction (ACTAR), No. 796

**ADDITIONAL TRAINING**

- SATAI Conference and Crash Tests: Multi-year
- ARC Accident Reconstruction Conference: Multi-year
- CDR Technician Certification Course, April 2009
- Applied Brake Controls: ABS, TCS, and ESC Seminar, January 2007
- Detroit Diesel DDEC Reports & Data Extraction, December 2006
- Tire and Wheel Safety Issues, SAE, December 2004
- The Tire as a Vehicle Component, SAE, December 2004
- UCR Tire Failure Analysis in Traffic Accident Investigations, 2003
- Accident Reconstruction TOPTEC: Heavy Truck Rollover & Collision Avoidance, April 2003
- Accident Reconstruction TOPTEC: Passenger Vehicle Rollover, April 2002
- Accident Reconstruction TOPTEC: Special Topics, May 2001
- Commercial Truck Driving Course, February-March, 2001
- Braking Performance of Heavy Vehicles, SAE, December 2000
- Accident Reconstruction: State of the Art TOPTEC, SAE, December 1999
- Passenger Car Rollover TOPTEC, SAE, January 1999
- Sport Utility Vehicle Safety TOPTEC, SAE, December 1997
- Low Speed Collision TOPTEC, SAE, August 1996
- Automobile Vehicle Dynamics, SAE, January 1994
- I-CAR Collision Repair Course, August-September 1994
- Heavy Vehicle Rollovers: A Safety Issue TOPTEC, SAE, April 1993
- Vehicle Rollovers TOPTEC, SAE, September 1992

## **PROFESSIONAL EXPERIENCE**

- 2008 to present      **MOMENTUM ENGINEERING CORP.**  
*Director of Engineering/Senior Forensic Engineer*  
Accident reconstruction, including heavy trucks, automobiles, motorcycles, bicycles and pedestrian accidents. State-of-the-art computer simulation and animation production. Engineering services including vehicle and site inspections, re-enactments, visibility studies, traffic signal analysis, vehicle dynamics, rollover dynamics, crash testing, mechanical failure analysis and design evaluation.
- 2001 to 2008      **VECTOR SCIENTIFIC, INC.**  
*Director of Engineering*  
Accident reconstruction, including heavy trucks, automobiles, motorcycles, bicycles and pedestrian accidents. Extensive use of computer-based analytical methods and video animation production. Engineering services including vehicle dynamics and crash testing, mechanical failure analysis and design evaluation.
- 2000 – 2001      **KNOTT LABORATORY, INC.**  
*Senior Engineer*  
Accident reconstruction, including extensive use of computer-based analysis methods and video animation production.
- 1992 – 2000      **VOLLMER-GRAY ENGINEERING LABORATORIES, INC.**  
*Staff Engineer*  
Accident reconstruction and investigation of collisions involving heavy trucks, automobiles, motorcycles, bicycles and pedestrians. Additional analyses and tests performed with respect to various forensic engineering issues.
- 1991 – 1992      **SELF-EMPLOYED**  
*Consulting Engineer*  
Failure analysis using nonlinear FEA techniques for vehicular equipment failure investigation. Drawing construction, hardware inspection, load calculation, structural testing, and FEA model assembly and validation.
- 1987 – 1992      **HUGHES SPACE AND COMMUNICATION GROUP**  
*Group Head*  
Structural and dynamic analysis and testing of large, complex structures from conceptual design trade-off studies through final production. Responsible for designing, directing and conducting structural tests and correlating test data to dynamic models. Conducted vibration and acoustic tests. Failure analysis of overstressed hardware and associated re-designs.

- 1986 – 1987                    B.R. LABS, INC.  
*Test Engineer*  
Conducted research for the development of applications energy systems including design, analysis, manufacturing and testing of various systems.
- 1985 – 1986                    SIGNAL CIRCUITS, INC.  
*Materials Engineer*  
Responsible for quality control of printed circuit board fabrication, including chemical solution analysis, engineering and metallurgical analysis, and chemical safety control.
- 1984 – 1985                    SEVERY, INC.  
*Junior Engineer*  
Assisted in reconstruction of automobile accidents. Conducted inspections (photography and general investigation), created drawings of accident scenes and assisted in numerous additional field tasks.

## **TECHNICAL BACKGROUND**

### **Accident Reconstruction:**

Reconstruction of automobile, heavy truck, bus, bicycle, motorcycle and pedestrian accidents.

Scene investigation and drawings, skid/crush analysis, photography, vehicle inspection, damage analysis, vehicle dynamics, rollover analysis, tread detachment, loss of control and human factors associated with accident reconstruction.

Computer-based accident reconstruction using PC-Crash, EDCRASH and EDSMAC.

Computer-based photographic analysis, including close range photogrammetry, scanning/analysis in Photoshop and use of Photodeler to analyze skids and crush patterns.

Computer simulation and animation, including production of presentation-quality video animations.

Crash testing and vehicle dynamics testing, data analysis and reduction.

### **Automotive:**

Brakes, steering, engines, cooling systems, clutches, transmissions, drivetrain, suspension, frame, body-structure repair and painting.

### **Computer and Classical Analysis:**

Finite element modeling, vibration, acoustics, and stress analysis.

### **Design Evaluation:**

Mechanical systems and components performance evaluation.

## **PUBLICATIONS**

Landerville JB, Fatzinger, EC, Wang PS. "Disputed Red Light accidents: A primer on signal control" (Advocate Article). Published by Consumer Attorneys Association of Los Angeles, November, 2009.

Goldberg, SP, Landerville JB. "Animation as Evidence in Accident Reconstruction" (Advocate Article). Published by Consumer Attorneys Association of Los Angeles, August, 2006.

Raymond DE, Landerville JB, Wheeler JB, Dainty DA. A Parametric MADYMO Analysis for Determining Seat Belt Usage in a Frontal Collision. *Proceedings of the International Society of Biomechanics XXth Congress and the American Society of Biomechanics 29<sup>th</sup> Meeting*, Cleveland, Ohio, August, 2005.

Brown DG, Landerville JB, Wheeler JB. PCL, ACL, and MCL Rupture in Rear-seat Occupants in Offset/Frontal Automobile Collisions. *Proceedings of the XVIIIth International Congress on Biomechanics*, Zürich, Switzerland, July 8-13, 2001.

"Accelerometer Bonding Study," Institute of Environmental Sciences 13<sup>th</sup> Annual Aerospace Testing Seminar, Manhattan Beach, California, March 3, 1990.

## **PROFESSIONAL AFFILIATIONS**

- California Association of Accident Reconstruction Specialists (CA2RS)
- Society of Automotive Engineers
- American Society of Mechanical Engineers
- Southwest Association of Technical Accident Investigators
- Accreditation Commission for Traffic Accident Reconstruction

## **AWARDS AND ACCOMPLISHMENTS**

- Pi Tau Sigma, Honorary Fraternity of Mechanical Engineers
- Tau Beta Pi, National Honor Society of Engineers
- 1990 Hughes Aircraft Co. Performance Improvement Award
- 1990 Hughes Aircraft Co. Superior Team Award for MMB-3 Model Test/Model Correlation
- 1988 Hughes Aircraft Co. Superior Team Award for HS 393 JCS CF-1 Vibration Test Program
- 1988 Hughes Aircraft Co. Achievement Award for HS 393 JCS CF-1 Vibration Test Program