

# Boster, Kobayashi & Associates

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## MICHAEL J. BRAUN, P.E.

### Curriculum Vitae

#### **EDUCATION:**

B.S. Mechanical Engineering, California Polytechnic State University, San Luis Obispo, 1989

#### **PRESENT POSITION:**

Boster, Kobayashi & Associates, Livermore, CA: 1990 - Present

A consulting firm specializing in the technical aspects of accident reconstruction, failure analysis, highway design and injury causation. Typical assignments involve application of laws of physics and principles of engineering to vehicular accident reconstruction and product design/defect analysis.

Have analyzed over 3000 cases and provided expert witness testimony in courts in California, Nevada, Alaska, and Louisiana. Typical assignments include:

- Accident reconstruction (including cars, trucks, trailers, buses, trains, motorcycles, ATV's, boats, personal watercraft, golf carts, bicycles, pedestrians, cranes, heavy equipment, forklifts, pallet trucks)
- Mechanical and Forensic Engineering analysis
- Inspection and analysis of potential defects related to vehicle and equipment design, manufacture, maintenance and repair
- Air Bag Systems/Restraint Systems analysis
- Imaging and analysis of vehicle event data recorders (EDR)
- Human factors related to accident reconstruction (perception/reaction, visibility)
- Product design/defect analysis, machine guarding, safety and warnings
- Propane systems, fires, explosions

#### **REGISTRATION:**

Registered Professional Mechanical Engineer  
State of California  
Certificate Number M 028821

#### **PROFESSIONAL SOCIETY MEMBERSHIPS:**

- Tau Beta Pi National Engineering Honor Society
- Society of Automotive Engineers
- American Society for Testing and Materials (ASTM International)
  - Member of Committee E-30: Forensic Sciences
  - Member of Committee E-58: Forensic Engineering, Product Defect Incidents, Vehicular Incidents
- American Society of Safety Professionals

## **PREVIOUS POSITIONS:**

### Factory Mutual Engineering Association, Concord, CA: 1990

Loss Prevention Consultant. Provided engineering services to property insurance companies. Furnished consulting services to businesses regarding property conservation, risk management and loss prevention. Prepared risk evaluation reports.

### IBIS Systems, Inc., Westlake Village, CA: 1989

Engineering Assistant. Designed bumper stop for hard disk actuator carriage assembly. Utilized computer aided design and modeling. Built and tested prototype.

### AWU Honors Undergraduate Fellowship, LLNL, Livermore, CA: 1985, 1986

Investigated techniques for producing low-density polymers with enhanced mechanical properties. Designed laboratory equipment. Tested and analyzed mechanical properties. Granted Department of Energy security clearance.

### Union 76 Service Station, Livermore, CA: 1983-1984

Assistant Automobile Mechanic/Station attendant. Automotive repair, maintenance and service.

## **SPECIALIZED TRAINING AND EXPERIENCE:**

### California Boater Certificate – 2018

California State Parks Division of Boating and Waterways  
Certificate Number: B321315534

### Motor Vehicle Fire Investigation Computer-Based Training – 2018

Online training course developed for National Automotive Sampling System (NASS) investigators and Special Crash Investigations (SCI) teams at the National Highway Traffic Safety Administration (NHTSA)

### FARO Laser Scanning – Focus 3D and SCENE Software Training – 2014

### CDR User's Conference – 2008

Houston, TX

Three day conference regarding the use of the Crash Data Retrieval System (CDR).

### Role of Warnings and Instructions – 2005

University of Wisconsin, 3 days, Madison, WI

Hazard analysis, design and development of warnings and instructions, standards, assessing the effectiveness of warnings

### Crash Data Retrieval System, Operator's Certification Course – 2004

Collision Safety Institute, Inc. three day training course regarding use of the Vetronix Crash Data Retrieval system. Certified as a Crash Data Retrieval system operator.

### PC-CRASH Advanced Workshop - 2003

Advanced training in the use of PC-Crash accident reconstruction simulation software

**SPECIALIZED TRAINING AND EXPERIENCE:** (continued)

PC-CRASH/PC-RECT Training Seminar – 2002

Trained in the use of 2D/3D accident reconstruction simulation software (PC-CRASH) and photogrammetry software (PC-RECT).

Accident Reconstruction: State-of-the-Art – 1999

Society of Automotive Engineers Continuing Professional Development Group.

A two day workshop presenting the latest developments and ongoing research in accident reconstruction.

Fundamentals of Sensor Design for Automotive Air Bag Systems – 1998

Society of Automotive Engineers Continuing Professional Development Group.

A one day seminar presenting an examination of the technical issues involved in crash sensor design for automobile air bag systems.

Airbag Design and Performance Technical Workshop – 1997

Society of Automotive Engineers Continuing Professional Development Group.

A two day workshop presenting the latest developments and ongoing research in all aspects of airbag design and performance.

Passive Restraints Technical Workshop – 1995

Society of Automotive Engineers Continuing Professional Development Group.

A two day workshop addressing the safety issues associated with air bags and automatic seat belt systems.

Low Speed Rear Impact Collision Technical Workshop – 1994

Society of Automotive Engineers Continuing Professional Development Group.

A two day workshop presenting the latest research in the area of rear impact collisions and resulting injuries. Topics included accident reconstruction, estimating impact severity and injury potential, and Kinematics of occupant response.

Crash Testing Project/Seminar – 1992

BH2VK Engineering, San Bernardino, CA

Participated in testing and evaluation of vehicle response to impact at different speeds and configurations.

Occupational Safety & Health – 1991

Las Positas College, Livermore, CA

Trained in the prevention of workplace related accidents and the responsibility of employers to provide safe working conditions.

Fire and Extended Coverage Training – 1990

Factory Mutual Engineering Association, Norwood, MA

Trained in aspects of property conservation and loss prevention including fire safety, roof design and flood control.

## **PUBLICATIONS AND PRESENTATIONS**

“EDR Use in Motor Vehicle Accident Reconstruction”, Property Claims Association of the Pacific, San Francisco, CA 16 March 2006

Braun, T.A. et al. "Rear-End Impact Testing with Human Test Subjects", SAE 2001-01-0168  
"Experiencing Low Speed Rear-End Impact Tests", American Academy of Forensic Sciences, 52<sup>nd</sup> Annual Meeting, Reno, 24 February 2000.

"Handling Low Property Damage Auto Cases", MCLE Seminar, Barristers Club of San Francisco, San Francisco, CA 5 November 1998.

“Force Levels Associated with Head Impact from a Parking Gate Arm,” Proceedings of the American Academy of Forensic Sciences, Volume III, February, (1997).

“Handling Low Property Damage Auto Cases,” MCLE Seminar, Barristers Club of San Francisco, San Francisco, CA 16 July 1997.

“Use of Expert Witnesses,” California State University, Hayward, Concord, CA, 30 July 1997.

“Airbag Safety,” Proceedings of the American Academy of Forensic Sciences, Volume IV, February, (1998).