

A R TECH Forensic Experts, Inc.  
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## EDUCATION

**PhD Mechanical Engineering, University of California at Berkeley  
MS Mechanics, Illinois Institute of Technology  
BS Civil Engineering, Cooper Union**

## FORENSIC ENGINEERING EXPERIENCE AND EXPERTISE

### General

- Extensive expert testimony experience in trials, arbitrations, depositions and hearings.
- Retention by both Plaintiff and Defense law firms as well as direct retention by major insurance carriers.
- Court-appointed expert as well as private attorney retention in Criminal cases.
- Expertise and credentials on the witness stand based on:
  - highest educational degrees and licensing in the applicable forensic engineering subject areas
  - technical knowledge and experience acquired over a 30-year period of engineering in industry.

### Vehicular Accident Reconstruction & Occupant Biomechanics

Collision and time-motion analysis and simulations, including multi-vehicle collisions and accidents involving bicycles or pedestrians. Skid mark analysis. Damage-matching analysis and impact estimates from damage. Occupant biomechanics. Visibility and line-of-sight analysis. Traffic signal phasing and other control issues. Vehicle Code compliance analysis. Vehicular types include cars, motorcycles and mopeds, vans, pickups, bobtail trucks, tractor-trailer rigs, off-road vehicles, RVs, utility vehicles, catering trucks, armored trucks, dumpster trucks, converter gears, passenger buses, forklifts and other industrial vehicles, construction and agricultural vehicles.

### Vehicular System or Component Defects

Brakes and brake hydraulics (including skid testing); wheels; axle assemblies, chassis; suspension; steering; seats (including seat backs and head rests); seat belts; engine; fuel system; transmission; windshield; vehicle stability and roll-over; hydroplaning; vehicle structural integrity; run-away acceleration, lamp and filament examination, vehicle fire causation analysis.

### Premises Liability (including Code Compliance)

Slip-and-fall, trip-and-fall, stairway and ramp accidents (including coefficient-of-friction testing and issues, and including analysis of body mechanics). Glass injuries; guardrails; illumination issues; door and gate closing mechanisms (including garage door); screens and windows, swimming pool accidents; plumbing furnace; stove; water heater; falling plaster; ceiling; roof. Structural failures. Code compliance (UBC, LABC, LAMC); failure-to-maintain; failure-to-warn; etc. Occupancies include single- and multi-family residences, retail establishments (including department stores), garages, public streets, sidewalks, parks and other public access.

**Industrial, Construction and Office**

Workplace, construction site and office accidents. Cal-OSHA code compliance analysis. Walking-working surfaces (including ramps); hoisting and conveying; machine guarding; forklifts and other industrial vehicles; powered lifts and work platforms; construction vehicles; materials handling and storage (including hazardous materials); ladders; scaffolding; trenching and shoring; noise levels; illumination; general plant safety; human factors and ergonomics issues.

**Products Liability**

Negligence and strict liability assessments regarding design defects, manufacturing defects, improper maintenance, failure to warn. Conclusions and opinions based on general engineering principles and on codes or standards where they exist.

Applications to hand and portable power tools; heavy machinery (e.g., woodworking, metal working, cutting, shearing, power and hydraulic presses, die casting, injection molding, food machinery); personal protective equipment (e.g., safety goggles); consumer products (e.g., chairs, tables, water dispensers, pot handles, exercise equipment, lawnmowers); conveyors; fasteners and connections (e.g., bolts, welds, handles); mechanisms; etc.

**Criminal Cases**

Vehicular homicide; hit and run; assault with deadly weapon, assault with great bodily harm intent; gross negligence assessments; shooting reconstruction (including drive-by); DUI-related accidents; vandalism; trade secret theft.

**FULL-TIME PROFESSIONAL EXPERIENCE**

**AR TECH Forensic Experts, Inc.**

**Senior Consulting Engineer and Principal**

**von Haenel & Associates Accident Reconstruction Engineers.**

**Forensic Engineer Consultant**

**RAND Corporation.**

**Engineer, Senior Engineer**

**Research and Development Associates.**

**Senior Scientist**

**TRW, Science & Technology Division.**

**Staff Engineer, Dynamics Department, Applied Mechanics Laboratory**

**Hexcel Corporation.**

**Manager of Structures Research**

**Sandia National Laboratory.**

**Member of Technical Staff**

**Wm Brobeck & Associates, Consulting Mechanical Engineers.**

**Design Engineer (full-time summer job prior to PhD)**

**Douglas Aircraft Company.**

**Design Engineer (full-time summer job prior to PhD)**

**Union Carbide Corporation, Linde Division.**

**Design Engineer (full-time summer job prior to PhD)**

**U.S. Navy Civil Engineer Corps.  
Engineer Trainee (full-time summer job prior to PhD)**

**PART-TIME ACADEMIC & CONSULTING EXPERIENCE**

**State of California, Board for Professional Engineers & Land Surveyors.  
Expert Examiner, Safety**

**Engineers Review (Professional Engineer Exam).  
Mechanical Engineering Instructor & Civil Engineering Instructor**

**UCLA, College of Engineering.  
Visiting Lecturer, Thermodynamics**

**University of California at Berkeley, Department of Mechanical Engineering.  
Teaching Assistant, Research Assistant, Teaching Fellow**

**Illinois Institute of Technology, Mechanics Department.  
Teaching Assistant & Research Assistant**

**Xerad, Inc.  
Consultant**

**RAND Corporation.  
Consultant**

**Rotoflow Corporation.  
Consultant**

**PROFESSIONAL & HONOR SOCIETIES (CURRENT & PAST)**

**American Society of Mechanical Engineers (ASME)  
American Academy of Mechanics (AAM)  
Society of Automotive Engineers (SAE)  
National Association of Professional Accident Reconstruction Specialists (NAPARS)  
American Society of Civil Engineers (ASCE)  
International Conference of Building Officials (ICBO)  
American Society of Safety Engineers (ASSE)  
Human Factors and Ergonomics Society (HFES)  
American Society for Testing and Materials (ASTM)  
Society of Manufacturing Engineers (SME)  
National Fire Protection Association (NFPA)  
Operations Research Society of America (ORSA)  
National Society of Professional Engineers (NSPE)  
Chi Epsilon (honorary civil engineering fraternity)  
The Society of Sigma Xi (honorary scientific research fraternity)  
American Association for the Advancement of Science (AAAS)**

**PATENTS, PUBLICATIONS**

**Listing of patents and open literature publications available upon request.**