

Kelly B. Kennett, M.S.

Professional Profile

Kelly Kennett specializes in biomechanical engineering, with emphasis on traumatic injuries related to transportation, recreation, and industry. His expertise includes the following areas:

- Injury biomechanics—evaluation of injury severity, causation, and correlation with dynamic and static events. Investigation and reconstruction of incidents involving all types of vehicles, including on- and off-road vehicles, recreational vehicles, lifts, cranes, and other heavy equipment. Inspection and analysis of vehicular restraint systems, protective gear, and other injury prevention and mitigation devices. Knowledge and application of motor vehicle and consumer product safety standards.
- Computational dynamic modeling—computer modeling of dynamic events using rigid-body and finite element techniques. Simulation of occupant dynamics in motor vehicle collisions and other dynamic impact events. Numerical analysis of restraint systems and other injury prevention measures. Quantitative analysis of human body response to varying mechanical loading conditions.
- Dynamic testing—design, execution, and evaluation of vehicle and human volunteer and surrogate testing, including anthropomorphic test dummies and cadaveric specimens.

Before InSciTech, Mr. Kennett worked at Exponent Failure Analysis Associates, Inc., and at ProAnalysis, Inc. He has also served as a researcher at the Automobile Safety Laboratory of the University of Virginia.

Credentials and Professional Honors

M.S. (Department of Mechanical Engineering), University of Virginia, 1995

B.S. (Aerospace Engineering), University of Virginia, 1994

Member, Society of Automotive Engineers

Member, Association for the Advancement of Automotive Medicine

Senior Member, American Institute of Aeronautics and Astronautics

Paper reviewer for Traffic Injury Prevention, and Society of Automotive Engineers

Shell Century III Leadership Scholar

Publications & Presentations

“‘Black Boxes’ in Vehicles: Applicability, Reliability, & Accuracy,” Invited Lecture for the 26th Annual Insurance Law Institute, Institute of Continuing Legal Education in Georgia and Tort & Insurance Practice Section, State Bar of Georgia, St. Simons Island, GA, September 2007.

“Intersection Right-of-Way: What is an Immediate Hazard,” Proceedings, 49th Annual Meeting of the Human Factors and Ergonomics Society, Orlando, FL, September 2005 (with T.J. Ayres and R. Kelkar).

“Lower Extremity Trauma—Mechanical Classifications & Emergency Aspects,” Seminar for the National Registry of Emergency Medical Technicians—Paramedic Recertification Course, for Rural Metro Ambulance Service, January 2004.

“Skull and Facial Bone Trauma,” Chapter 12 in *Accidental Injury: Biomechanics and Prevention*, 2nd ed. (A.M. Nahum and J.W. Melvin, eds.), Springer-Verlag, New York, 2001 (with D.L. Allsop).

“The Role of Human Factors, Biomechanics, and Accident Reconstruction in Forklift Accident Investigations,” Proceedings, 6th Annual International Conference on Industrial Engineering—Theory, Applications, & Practice, San Francisco, CA, November 2001 (with S. Arndt and S. Hammoud).

“Modeling of Falls and Jumps,” Proceedings of the MADYMO Users’ Meeting of the Americas, Detroit, MI, 2001 (with R. Kelkar and W. Lai).

“Classification of Accidents—Vehicular Damage and Occupant Outcomes,” Seminar for Atlanta Area Claims Adjusters, October 2001 (with J.E. Meyer).

“Hydrophilic Coatings Diminish Adhesion of Glue to Catheter: An In Vitro Simulation of NBCA Embolization,” *American Journal of Neuroradiology*, Vol. 18, No. 6, June 1997 (with J.M. Mathis, A.J. Evans, A.J. DeNardo, J.R. Crandall, M.E. Jensen, and J.E. Dion).

“Alcohol As an Injury-Aggravating Factor,” Proceedings, 14th International Conference on Alcohol, Drugs, and Traffic Safety, Annecy, France, September 22–26, 1997 (with A. Donelson, R. Schmidt-Hargrave, K. Ramachandran, L. Cheng, and L. Thibault).

“In Situ Measurement of Loads in the Tibia,” Proceedings, 24th Annual International Workshop on Human Subjects for Biomechanical Research, Albuquerque, NM, November 1996 (with J.R. Crandall, C.R. Bass and G.S. Klopp).

Publications & Presentations (cont.)

“Development and Evaluation of an *In Situ* Tibial Load Cell,” Master’s thesis, University of Virginia, delivered to National Highway Traffic Safety Administration, 1995.

“Warming of Cadavers for Impact Testing,” Proceedings, 22nd Annual International Workshop on Human Subjects for Biomechanical Research, Ft. Lauderdale, FL, November 1994 (with J.R. Crandall and W.D. Pilkey).

“Instrumentation Package for the Lower Extremities,” Proceedings, 22nd Annual International Workshop on Human Subjects for Biomechanical Research, Ft. Lauderdale, FL, November 1994 (with J.R. Crandall, G.S. Klopp, and S. Klisch).

“Hydrophilic Catheter Coatings Diminish the Risk of Fixation,” Proceedings, 32nd Annual Meeting of the American Society of Neuroradiology, Nashville, TN, May 1994 (with J. Mathis).