Entropy
ENGINEERING CORP.

Practice Areas:
Accident Reconstruction
Mechanical Engineering

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Dr. Richard S. Passamaneck, PE

Dr. Passamaneck is a licensed professional engineer specializing in vehicle accident reconstruction and mechanical systems analysis. He has inspected hundreds of vehicles and has extensive experience evaluating accident related data. His expertise extends to vehicle sub-systems including fuel injection, drive train control, transmission and brakes from both a failure and design basis. Dr. Passamaneck has evaluated a variety of failures related to mechanical systems and machinery including oil field equipment and accidents.

LICENSURE & EDUCATION

Dr. Passamaneck is a Licensed Professional Engineer in the State of Colorado.

B.S. in Engineering, University of California at Los Angeles, 1963

M.S. in Engineering, University of California at Los Angeles, 1966

PhD. In Aerospace Engineering, University of Southern California, 1973

PROFESSIONAL EXPERIENCE

Senior Lecturer, Engineering Division, *Colorado School of Mines,* 2002 to May 2010

Executive Vice President and Partner, *Propellant Fracturing & Stimulation,* 2000 to May 2010

Associate Professor of Mechanical Engineering, *University of Colorado at Denver,* 1991 to 2000

Senior Consultant, *Knott Laboratory, Inc.,* Denver, CO, 1988 to 1991

Associate Professor, Department of Engineering, *Colorado School of Mines,* 1982 to 1988 (tenured 1984)

Senior Research Engineer, *Solar Energy Research Institute,* Golden, CO, 1980 to 1982

Associate Professor of Mechanical Engineering, *University of New Mexico,* Albuquerque, NM, 1976 to 1980

Lecturer, *California State University at Los Angeles,* 1975 to 1976

Senior Engineer, Jet Propulsion Laboratory, *California Institute of Technology,* Pasadena, CA, 1965 to 1976

Engineer, *Naval Ordinance Test Station,* Pasadena, CA, 1963 to 1964

AUTOMOTIVE & MECHANICAL SYSTEMS ANALYSIS

Dr. Passamaneck's experience includes the evaluation and analysis of vehicle crush damage, occupant dynamics, crash worthiness, occupant compartment intrusion, and component failure analysis. His accident reconstruction skills also include estimating forces associated with low speed impacts, documenting accident scene evidence, analyzing visibility and accident avoidance issues utilizing time/distance and human factor relationships, and reconstructing commercial, multi-vehicle, bicycle and pedestrian accidents. He has investigated and evaluated cases to determine critical issues involving vehicle speed, restraint usage, accident avoidance, headlight illumination, and vehicle defects. Dr. Passamaneck also has extensive experience in the evaluation of chemical and physical explosions including pressure vessel failures.

AFFILIATIONS

Dr. Passamaneck is a member of the following technical and professional societies: *Sigma Xi*, *Society of Automotive Engineers*, *American Society of Mechanical Engineers*, *American Institute of Aeronautics and Astronautics*

RECOGNITIONS

Apollo Achievement Award, *National Aeronautics and Space Administration*, 1969

Outstanding Teaching Award, Mechanical Engineering, *Colorado School of Mines*, 2006 (Spring & Fall) and 2007

PUBLICATIONS

Dr. Passamaneck has authored numerous research papers and technical reports which are available upon request. He holds nine patents and has served as a technical reviewer of Engineering Texts.