



Ted T. Sokol, Ph.D., P.E.
Registered Professional Civil Engineer

CURRICULUM VITAE

BUSINESS INFORMATION:

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EDUCATIONAL BACKGROUND:

Kansas State University, Manhattan, Kansas
Degree: PhD., **Major:** Civil Engineering, May 1982
Minor: Engineering Mechanics & Mathematics

University of Nebraska-Lincoln, Lincoln, Nebraska
Degree: Master of Science, **Major:** Civil Engineering, January 1968
Minor: Engineering Mechanics

University of Omaha, Omaha, Nebraska
Degree: Bachelor of Science, **Major:** Civil Engineering, May 1965

PROFESSIONAL REGISTRATIONS:

Professional Registered Engineer
State of Nebraska - Registration Number E3603

Professional Registered Engineer
State of Colorado – Registration Number 11388

Certified Traffic Accident Reconstructionist
Accreditation Commission for Traffic Accident Reconstructionist, ACTAR
Denver, Colorado, Registration Number 174
Expiration Date 4/22/2014

Certified Crash Data Retrieval System Specialist
Collision Safety Institute, San Diego, CA.
June 11, 2004

PRIVATE INDUSTRY ENGINEERING EXPERIENCE:

FAAR Consulting Company, Omaha, NE
Accident Reconstruction and Failure Analysis Engineer
1982 to **Present**

Kirkham Michael & Associates, Omaha, NE
Highway and Bridge Design Engineer
1966, 1967, 1978

HDR Consulting Engineers, Omaha, NE
Bridge Design Engineer
1975

Department of Defense, Office of Civil Defense, Washington, DC
Assistant Director of Disaster Preparedness
Disaster Preparedness & Mitigation Engineer
1967 to 1971

Ideal Cement Company, Omaha, NE
Concrete Design Engineer
1963 to 1965

UNIVERSITY TEACHING EXPERIENCE

University of Nebraska-Lincoln, Omaha
Campus
College of Engineering & Technology
Professor Emeritus, 2000 to Present

University of Nebraska-Lincoln, Lincoln, NE
College of Engineering & Technology
Department of Civil Engineering
Instructor, 1979 to 1982

Kansas State University, Manhattan, KS
College of Engineering
Department of Civil Engineering
Instructor, 1979 to 1982

University of Nebraska-Lincoln, Omaha
Campus
College of Engineering & Technology
Department of Construction Systems Technology
Associate Professor, 1972 to 1979

University of Omaha, Omaha, NE
College of Engineering
Department of Civil Engineering
Assistant Professor, 1965 to 1972

PROFESSIONAL SOCIETY AFFILIATIONS:

Member – **Society of Accident Reconstructionist, SOAR**, 1987 to Present
Member – **Society of Automotive Engineers, SAE**, 1983 to Present
Member - **Midwest Association of Technical Accident Investigators, MATAI**, 1994 to Present
Member - **National Society of Professional Accident Reconstruction Specialist, NAPARS**,
1992 to Present

HONORS AND AWARDS:

**Engineer of the Year Award,
Teaching Award**
Nebraska Society of Professional Engineers
Eastern Chapter NeSPE, Omaha, NE. May 1994

Recipient of Distinguished Teaching Award,
University of Nebraska –Lincoln, College of Engineering
Sponsored by Nebraska Legislature, 1987

Recipient of Halliburton Distinguished

College of Engineering & Technology
Sponsored by Halliburton Company, 1981

Member Omicron Delta Kappa,
National Honor Society
Outstanding Teaching Award, 1972

UNIVERSITY LEVEL COURSES TAUGHT:

Engineering Statics	Engineering Surveying	Engineering Dynamics
Structural Steel Design	Highway Surveying	Construction Equipment
Concrete Design	Formwork Design	Foundation Design
Timber Design	Construction Methods	Strength of Materials
Mathematics	Highway Design	

UNIVERSITY COURSES TAKEN RELATING TO ACCIDENT RECONSTRUCTION:

Engineering Statics	Engineering Dynamics	Advanced Engineering Dynamics
Highway Engineering	Highway Surveying & Design	Transportation Engineering
Mathematics	Physics	Route Surveying
Materials testing	Computer Programming	

SEMINARS ATTENDED RELATING TO ACCIDENT RECONSTRUCTION:

Attended, “Microcomputer Assisted Programs for Accident Reconstruction”, Short Course, Northwestern University Traffic Institute, Evanston, IL., Engineering Dynamics Corporation, Sept. 1988.

Attended, “Pedestrian Accident Investigation”, Eighth Annual Conference & Training Program”, by Midwest Association of Technical Accident Investigators, MATAI, Lincoln, NE. , May 21 – 25, 1995.

Attended, “Motor Vehicle/Bicycle Accident Investigation”, 9th Annual Conference, Midwest Association of Technical Accident Investigators, MATAI, Ames, Iowa, May 13-15, 1996.

Attended, “Commercial Motor Vehicle Accident Investigation”, 10th Annual Conference Midwest Association of Technical Accident Investigators, MATAI, Cedar Rapids, Iowa, May 18-21, 1997.

Attended, “Analysis of Traffic Accidents Using Crush”, 11th Annual Conference Midwest Association of Technical Accident Investigators, MATAI, Kansas City, Missouri, May 18-20, 1998.

Attended, “Analysis of Low Speed Collisions”, 13th Annual Conference of Midwest Association of Technical Accident Investigators, MATAI, Eau Claire, WS, May 21-24, 2000.

Attended, “Dynamics in Motorcycle Crash Investigation”, 14th Annual Conference Midwest Association of Technical Accident Investigators, MATAI, Fort Collins, CO, June 11-14, 2001.

Attended, “4th Annual Rocky Mountain Crash Conference”, Denver, Co, May 6-9, 2003.

Attended, “Physics Principles Applied to Accident Reconstruction”, Hawkeye Community College, Midwest Association of Technical Accident Investigators, Waterloo , Iowa, February 9-13, 2004.

Attended,” 5th Annual Rocky Mountain Crash Conference, Investigating Commercial Vehicle Collisions and Reconstruction, Denver, CO, May 5-7, 2004.

Attended, “Crash Data Retrieval System Operator’s Certification Course”, Collision Safety Institute, Houston, TX, June 9-11, 2004.

Attended, “Conference on Motorcycle, Heavy Truck Braking Analysis, and Pole and Fixed Object Impacts”, MATAI Conference, Rapid City, SD, June 8-10, 2005.

Attended, “ARC Network – Collision Safety Institute Crash Conference”, Las Vegas, Nevada, June 5-8, 2006

Attended, “2008 Crash Data Retrieval User’s Conference”, Houston, Texas, January 28-30, 2008.

Training Seminar on Truck Brakes, January 29, 2013, Volvo of Omaha.

FAROZone 3D AutoCAD Training, Omaha, NE., November 11, 2017.

RESEARCH IN ACCIDENT RECONSTRUCTION:

- 1) Evaluation of braking distance from known speed
- 2) Development of mathematical models for accident reconstruction
- 3) Reconstruction and analysis of staged collisions
- 4) Review of current research literature relating to accident reconstruction
- 5) Comparison studies relating to crush damage as it relates to real accidents
- 6) Writing of computer programs to assist in the analysis of accident reconstruction

SEMINARS AND PAPERS PRESENTED RELATING TO ACCIDENT RECONSTRUCTION:

“Vehicular Accident Reconstruction Technology”, seminar presented to the Nebraska Association of Trial Attorneys, Omaha, NE. 1978.

“Accident Reconstruction Techniques”, a seminar presented to a Group of Plaintiff Attorneys, Omaha, NE., April 1985.

“The Use of Expert Witnesses in Trial”, seminar presented to Nebraska Association of Trial Attorneys, October 1986.

“Reconstructing Vehicle Accidents to Establish Liability”, seminar presented to the Safety & Health Council of Greater Omaha, Omaha, NE, April 1987.

“Methodology of Reconstructing Vehicular Accidents – What Facts are Needed”, a seminar presented to State Farm Insurance Company, July 1987.

“Reconstruction of Accidents Involving Large Trucks, Including Construction Equipment”, seminar presented to National Indemnity Company, Omaha, NE., July 1987.

“Accident Reconstruction –What an Expert Can Do”, seminar presented for Gaines, Mullen, Pansing & Hogan Law Firm, Omaha, NE., September 1998.

“Vehicle Accident Reconstruction Techniques Applied to Criminal Defense”, seminar presented to Nebraska Criminal Defense Association Seminar, Lincoln, NE., March 2000.

“Claims Casualty Seminar”– Nationwide Insurance Co., “Interpretation of Output Data from Sensing Diagnostic Modules”, October 9, 2007, Lincoln, NE.

AREAS OF RECOGNIZED EXPERTISE:

VEHICLE ACCIDENT RECONSTRUCTION:

Reconstruction of vehicle accidents relating to: automobiles, trucks, trains, motorcycles, bicycles, and pedestrians.

On site investigations, causation analysis, accident avoidance maneuvers, vehicle braking analysis, collision analysis, and sight distance investigations. Retrieval of Crash Data from airbag control modules.

Thirty six years of experience in the area of accident reconstruction. I have been responsible for the investigation and analysis of over 3200 vehicle accident reconstructions.

FAILURE ANALYSIS:

Investigations relating to structural failures in steel, concrete, and timber structures. Construction formwork systems collapses and material failures including scaffold collapses and roof collapses due to overloads. Wind and snow load analysis. Foundation investigations. Stability analysis of self-propelled elevated work platforms, etc..

INDUSTRIAL ACCIDENTS:

Investigations into various types of industrial accidents. Power tools, elevators, cranes, ladders, forklifts, scissor lifts, construction equipment, and others. Stability analysis.

TECHNICAL PUBLICATIONS AND PAPERS:

Sokol, Ted T., "Determination of the Optimum Design Windspeed for Ordinary Structures", Engineering Research Center, University of Nebraska, 1975.

Sokol, Ted T., "Tornadoes: Their Characteristics and Their Effects on Buildings", Disaster Review Task Force, City of Omaha, 1976.

Sokol, Ted T., "Engineering & Engineering Technology Students: Is There a Difference?", American Society of Engineering Education Journal, 1978.

Sokol, Ted T., "Buckling of Eccentrically Loaded Curved Panels", Journal of Structural Engineering, American Society of Civil Engineers, Vol. 109, No. 9, September 1983, P. 2097.

Sokol, Ted T., "Full Scale Load Testing Program for Thin Walled Curved Panels", a paper presented at the Fifth ASCE-EDM Specialty Conference, University of Wyoming, Laramie, Wyoming, August 1984.

Sokol, Ted T., & Haggin, Ronald K., "Feasibility Study for the Usage of Solid Waste Bottom Ash As An Aggregate For Concrete", Research for Ogden Corporation, New York, NY, May 1988.

CONTINUING EDUCATION COURSES TAUGHT TO PRACTICING ENGINEERS:

Engineering Refresher Course, Parts I & II, a course for practicing engineers to review for the State Engineering Examination.

Multi-Protection Design Course, sponsored by American Society of Engineering education and the Department of Defense.

Designing for Extreme Winds, a course funded by National Society of Professional Engineers. Taught to design engineers in the Omaha area.

Design of Steel Structures, a short course sponsored by Nebraska Society of Professional Engineers, Omaha, NE.