MILLER ENGINEERING

2392 Fuller Court
Ann Arbor, MI 48105
www.millerengineering.com
888-206-4394 (toll free) or 734-662-6822
30 years of Engineering and Forensic Services


Miller


Lehto


Clark

VEHICLES:
- Car / Truck Accident Reconstruction
- Crash Data Retrieval (CDR)
- Truck & Off Road Vehicle Egress / Ingress
- Vehicle Speed Determination / Calculation
- Traffic Signing and Control
- Construction Zones

CHEMICALS, SDSs, & FIRE:
- Vaping & E-Cigarette Health Effects
- Vaping & E-Cigarette Battery Fires
- OSHA HazCom 2012 - GHS Review
- SDS & Product Label Compliance
- HazCom 2012 Employee Training
- Labels & MSDS Work Product Examples
- Fire & Explosion Investigations
- Toxic Tort Litigations - Warnings
- Chemical Exposure - Inhalation, Ingestion, Eye, & Dermal
- Contamination - Water & Environmental
- Workplace Carcinogens - Diacetyl, Asbestos, Benzene, Lead

MECHANICAL / ELECTRICAL SAFETY:
- Machinery - Metal, Wood, Plastic Molding
- Material Handling - Fork Lifts, Conveyors
- Guarding & Entanglement
- Electrical Distribution & Transmission Hazards
- Equipment Services & Maintenance
- Static Electricity
- Hazard & Risk Analysis

AGRICULTURE:
- Tractor & Equipment Accidents
- Chemical Applications & Exposures
- Crop Storage & Harvesting Accidents

WORKPLACE SAFETY & CHEMICAL EXPOSURES:
- OSHA Safety Compliance
- Slips, Falls & Entanglements
- Production / Process Line Accidents
- Lockout / Tagout Accidents/Injuries

CONSTRUCTION:
- Vehicle Visibility Accidents
- Slips, Trips & Falls
- Power Tool Repetitive Trauma & Accidents
- Scaffolding - Cranes - Hoisting - Rigging
- Personal Protective Equipment

RAILROADS & MINES:
- Accident Investigations
- Back Injuries
- Train - Car Accidents
- Explosions
- Chemical Release

WARNINGS / INSTRUCTIONS:
- Warning Labels & User Manual Design
- Product Label Designs
- Medical Device & Drug Warnings / Instructions
- Inadequate Warnings Analysis
- Compliance with US & Global Standards
- Product Recall Information & Strategies

CONSUMER / HOUSEHOLD SAFETY:
- Appliances & Power Tools
- Child Furniture, Choking and Playground
- Swimming Pool and Exercise Equipment
- Drug and Medical Warnings
- Recreation - ATV, Boats, Bicycles
- Ladder, Stairway & Walkway Falls
- Restaurant, Retail & Merchandise Accidents

HUMAN FACTORS / ERGONOMICS:
- Human Factors, Ergonomics & Biomedical Engineering
- Hospital Engineering & Clinical Nursing Practices
- Elderly Living Space Safety

INSURANCE SUBROGATION / FORENSICS:
- Accident Investigations
- Electrical and Fire Causation
- Chemical Leakage or Exposure Damage
- Defective Equipment Injuries
- Premise Liability
- Worker's Compensation

ENERGY:
- Green / Alternative - Wind, Solar, Hydroelectric
- Mechanical / Electrical Energy System Design
- Miller Hydroelectric Power Facility

GRAPHIC CAPABILITIES:
- 2D & 3D Trial Exhibits
- Accident Reconstruction

WHO WE ARE

President: James M. Miller, PE, Phd; Emeritus Engineering Professor, University of Michigan

Co-Founder: Mark R. Lehto, Phd; Engineering Professor, Purdue University

Co-Founder: David R. Clark, PE, PhD; Emeritus Engineering Professor, Kettering University

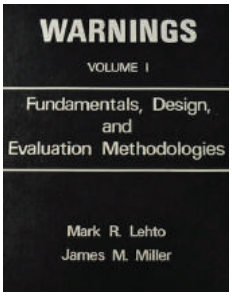
Managing Engineer: Adam M. Olshove, MSE

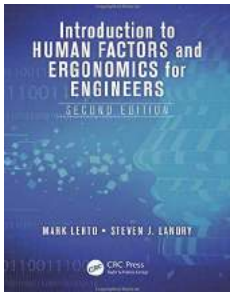
Staff and Support Engineers & Degree Areas:
- Sarah A. Snyder, PhD - Materials Science
- Alyssa L. Blunt - Mechanical
- Paul R. L. Miller - Mechanical
- Kelley S. Lodge - Packaging, Safety & Health
- Shirley A. Ampulski - Library Science

WARNINGS - INSTRUCTIONS - ERGONOMICS BOOKS BY MILLER & LEHTO

James Miller & Mark Lehto have coauthored four books on the topic of warnings, instructions, and labeling. Their first book, *Warnings: Volume 1: Fundamentals, Design and Evaluation Methodologies,* may have been the first scholarly book totally devoted to the topic of warnings.

In addition, Dr. Lehto authored the 2012 textbook *Introduction to Human Factors & Ergonomics for Engineers*, which is used in college classrooms and by practitioners across the country.





MILLER ENGINEERING TECHNICAL PUBLICATIONS

- Vaping E-Cigarettes, Health Hazards, & Battery Failures
- Button Batteries & Children
- How to Design a Warning Label
- Automobile Accident Reconstruction
- Evaluating Compliance of Chemical Labels & SDS (OSHA, ANSI, & GHS)
- Implementing a Hazard Communication Program
- Occupational Exposure to Benzene
- Common Household Hazards for Children

MILLER ENGINEERING

2392 Fuller Court
Ann Arbor, MI 48105
www.millerengineering.com
888-206-4394 (toll free) or 734-662-6822

30 years of Engineering and Forensic Services


Miller


Lehto


Clark

JAMES M. MILLER, PE, PhD

Dr. Miller is an Emeritus Engineering Professor at the University of Michigan and a registered mechanical professional engineer with over 30 years of experience. He has served as a consultant to industry and government and is highly qualified to give engineering testimony. He and his engineering staff specialize in: designing warnings, instruction manuals, and labeling (including OSHA 2012 GHS requirements); auto and truck accident reconstruction; mechanical and electrical safety; fire, explosion, and chemical process accident analysis; slip and fall prevention; marine, swimming, and recreational vehicle accidents (boats, ATVs, and personal watercraft); farm accidents; and compliance with governmental and consensual safety standards (OSHA, CPSC, ANSI, ASTM, UL, ASABE, etc).

Dr. Miller has recently authored a chapter titled "Hazard Communication Compliance" in the American Society of Safety Engineering Safety Engineering Handbook. He has also authored five books on the topic of Warnings and Safety Instructions and written numerous journal articles. He is currently a committee member of the ASTM Technical Committee F15 on Consumer Products.

Dr. Miller holds a B.S. in Mechanical Engineering and a Ph.D. in Industrial Engineering from Ohio State University, where he was one of the first U.S. Ph.D. graduates to specialize in transportation and consumer accident research. He became a professor at the University of Michigan's Department of Industrial and Operations Engineering (IOE), where he taught courses in human factors / ergonomics, safety engineering, methods engineering, and law for engineers (1970-1998). On leave from the University at the U.S. Department of Labor (1975-1977), he was appointed as Special Assistant for Safety to OSHA's Assistant Secretary of Labor, where he had responsibility, among other things, of revising the OSHA General Industry (29 CFR 1910) and Construction (29 CFR 1926) Safety Standards. He also participated in the early formation of the OSHA HazCom standard (29 CFR 1200) and original MSDSs and chemical labels.

MARK R. LEHTO, PhD

Dr. Lehto is a Professor at Purdue University. He completed his Ph.D. in engineering at the University of Michigan in 1985, where he specialized in human factors engineering, in particular warnings and labeling, which was also the topic of his dissertation. He has taught courses at Purdue in human and safety factors areas, as well as decision making and artificial intelligence. He has authored numerous professionally-reviewed articles, and he has authored / coauthored internationally-recognized textbooks in the areas of human factors and ergonomics. HIs current research often involves collecting data in the usability of consumer products and human computer / machine interactions in relation to safety. Dr. Lehto also holds patents in the automotive area in relation to occupant restraint systems. In addition, with his early experience in commercial fishing, he is qualified to analyze recreation- and marine-type accidents.

DAVID R. CLARK, PE, PhD

Dr. Clark is an Emeritus Engineering Professor at Kettering University. He was an engineering Ph.D. graduate from the University of Michigan, where he specialized in human factors engineering and system safety analyses. In particular, his earlier degrees in mechanical and electrical areas have given him a special expertise in electrical fire- and explosion-related accidents. Dr. Clark is also published on the topics of warnings and labeling. With considerable in-plant experience at General Motors, he is uniquely qualified to provide student theses and design projects while teaching at Kettering that deal with many types of mechanical and optimization projects. Finally, he has extensive experience working for loss control companies, performing over 150 fire origin and cause investigations in the past few years.

ADAM M. OLSHOVE, EIT, MSE (Mechanical Engineering)

Adam is a mechanical engineer whose projects at Miller Engineering have focused on the analysis of consumer product safety hazards and industrial accidents. He has performed dozens of on-site investigations nationwide related to these projects.
Under the direction of Dr. Miller, Adam has also designed and developed numerous warning labels and instruction manuals. He has led several large projects involving the analysis and reverse engineering of Material Safety Data Sheets.
Adam holds a Master of Science in Mechanical Engineering with a focus on control systems and battery modeling (2019), and a Bachelor of Science in Mechanical Engineering (2012), both from the University of Michigan. He is expected to obtain his Professional Engineering License in 2019.
His past experience includes internships at Caterpillar, Inc. and Rhetech, Inc. both in 2011, and undergraduate research at the University of Michigan's Composite Structures Lab from 2009 to 2010, where he worked under Dr. Tony Waas.

SARAH A. SNYDER, PhD (Materials Science and Engineering)

Dr. Snyder received her Ph.D. in Materials Science and Engineering from the University of Michigan in 2019. She also holds an M.S.E in Materials Science and Engineering from the University of Michigan (2017), and she graduated summa cum laude with a B.S. in Materials Science and Engineering from Rutgers University (2014). As a National Science Foundation (NSF) Graduate Research Fellow, the focus of Dr. Snyder's Ph.D. was on biomedical applications of polymers and polymeric surfaces. Her undergraduate work focused on glass engineering, culminating with an internship at Corning Incorporated. Professionally, Dr. Snyder is affiliated with Tau Beta Pi (The National Engineering Honor Society), Keramos (The American Ceramic Society), and Phi Sigma Rho (The National Engineering Sorority).

KELLEY S. LODGE, MSE (MSE - Industrial, BSE - Packaging)

Master of Science in Engineering, Industrial Engineering (Occupational Safety and Health) (1993), The University of Michigan. Bachelor of Science in Engineering (1992), Michigan State University. Bachelor of Science in Packaging (1992), Michigan State University. Kraft Foods (1996-1997): Post Cereal Division, Package Premiums, Research Engineer. Ford Motor Company (1993-1996): Customer Service Division, Warehouse Supervisor. Pillsbury (1990): Packaging Summer Intern

ALYSSA L. BLUNT, BSME (Mechanical Engineering)

B.S. in Mechanical Engineering, University of Michigan (2019). 3M (2018): Design Engineer. MC3 Cardiopulmonary (2016-2018): Product Development Engineer.

PAUL R. L. MILLER, BSME (Mechanical Engineering)

B.S. in Mechanical Engineering, Michigan State University (2016). J M Miller Enterprises (2014-2016): Agricultural Systems Manager.