

## William C. Wilson Technical Expert

William Wilson spent 12 years in the service station business as a dealer with Shell Oil, Standard Oil and Union 76 before becoming an independent garage owner in 1979. He then followed this career path for the next 36 years and, during this time, he was called upon by the auto industry to design coursework and instruct auto mechanics in the use of 21st century diagnostic test equipment.

In 1985 Mr. Wilson was approached by Auto-Owners Insurance to investigate a car fire by applying his expertise in the field of automotive mechanics. Subsequently, he founded Investigative Mechanics Inc. as both its Technical Expert and CEO.

Investigative Mechanics specializes in independent investigations of motor vehicles including but not limited to Origin and Cause of Fire, Air Bag deployment failures, complete analysis of braking systems, Crash Data Retrieval from Sensing Diagnostic Modules, Carbon monoxide poisoning, sudden acceleration in cruise control, medicolegal investigation of injury and death relating to accident victims and vehicle crash, research and development to determine cause of failure, and electrical failures in automotive, heavy truck, bus, farm machinery and off-road heavy equipment and motorized lifting equipment.

Mr. Wilson has testified as an expert witness in both Federal and State courts across the United States and has worked cases throughout the Continental U.S. and Canada.

**Complete CV and Fee Schedule  
Available upon Request**

## Our Professional Affiliations:

- International Association of Arson Investigators
- Society of Automotive Engineers
- Michigan Association of Traffic Accident Investigators
- National Fire Protection Association
- American Society of Agricultural Engineers
- ASTM International



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# Investigative Mechanics



*“Ascertaining factual information  
through a detailed investigation.”*

## Our Services:

We provide comprehensive investigation services on:

- Passenger Cars and SUV's
- Light, Medium, and Heavy Trucks
- Semi-Tractors and Trailers
- Motorcycles, ATV's and Snowmobiles
- Boats, Jet Skis, Marine Equipment and Yachts
- Farm and Agricultural Equipment
- Heavy Off-road Equipment
- Construction and Forestry Harvesting Equipment
- Diesel and Gasoline Generators
- Motor Homes, Travel Trailers, 5th Wheels and Recreational Vehicles
- Utility Trailers
- RV Industry installed Electric and Propane Refrigerators
- Event Data Recorders (Air bag Deployment)

## Our Facilities:

At our office, we offer our clients:

- A Large Conference Room for Depositions
- Two Investigative Laboratories
- Microscopy and Audio-Video Equipment
- Secure Evidence Storage (both On-site and Off)



## Our Focus:

Originally, Investigative Mechanics was focused on determining origin and cause of automobile, light/medium truck and bus fires. However, with our additional staff, extensive training, and years of experience we now offer a variety of services to our clients:

- Origin and Cause of Fire
- Forensic Accident Reconstruction
- Forensic Scene Mapping
- Professional Photography, Video Recording and Forensic Computer Animation Utilizing 2D and 3D Modeling
- Complete Braking System Failure Analysis (Foundational Braking and ABS, Traction Control, Stability control, On-Board Microprocessors)
- Certified Crash Data Retrieval and Analysis from Vehicular Event Data Recorders (Black-box downloads) - current version 17.7
- Forensic Analysis of Hot/Cold Shock to Bulbs
- Electrical Arc and Electrical Failure Modes and Analysis
- Recovery, Securing and Storage of Small and Large Evidence
- Development of Protocols and Procedures for Forensic Analysis, Investigation, and Testing
- Procurement, Photographing, Diagnosis, Analysis and Testing of Exemplar Vehicles
- Courtroom Exhibit Fabrication
- Forensic Perception/Reaction and Latent Vehicle Reaction Analysis
- Development and Teaching of College-level Courses on Automotive Event Data Recording
- Development of Protocols to Address Industry-wide Spoliation of Evidence Issues and compliance with Federal Rules of Evidence
- Expert Witness Testimony in County, State and Federal Courts on Criminal and Civil Cases for Plaintiff and Defense

- Consulting for Attorneys, Law Enforcement Agencies, Insurance Companies, and Manufacturers

## Our Team:

Mr. Wilson has recruited highly skilled individuals with similar personal standards and ethics including:

- Charles Wilson, Forensic Animator and Information Technology Specialist
- Frank Alfano, ASE Certified Master Auto Mechanic and Chrysler Electrical Master
- Rick Milbourne, Michigan Certified Master Heavy Truck Mechanic
- Greg Days, ASE Certified Master Auto Mechanic
- Ken Himebaugh, ASE Certified Heavy Truck Mechanic

Mr. Wilson also develops and instructs Event Data Recording (EDR) courses for Michigan State University's Highway Traffic Safety Program as part of their standard curriculum.

Calling upon our extensive case history and research involving EDRs (ranging from GM's Sensing Diagnostic Module to the newer Occupant Restraint Control produced by Chrysler), this course provides an introductory overview of event data recording which highlights the construction and operation of EDRs across multiple manufacturers and platforms, data download limitations, State and Federal standards and legal issues, all highlighted by multiple case studies detailing the history and future implementation of Event Data Recorders. Students then are trained in performing a successful download from an EDR module using the latest Crash Data Retrieval tools.