

CURRICULUM VITAE

*Timothy D. Brown
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Accreditation:

- Accreditation Commission for Traffic Accident Reconstructionist (A.C.T.A.R)
Certification #1228 -December 2001

Certifications:

- At-Scene Traffic Crash Investigation
- Advanced Traffic Crash Investigation
- Traffic Crash Reconstruction
- The E.D.R. Technology & Application
- C.D.R. Retrieval System
- Investigation of Motorcycle Crashes
- Applied Physics for Traffic Crash Investigators
- Basic Commercial Vehicle Crash Reconstruction
- Damage and Energy Applications for Collision Reconstruction
- Pedestrian/Bicycle Crash Investigation
- Advanced Heavy Vehicle Collision Reconstruction
- Biomechanics in Crash Reconstruction
- Human Factors in Crash Reconstruction
- C.D.R. System Operator-Update
- C.D.R. “Technician Level Operators” Course/Instructor

Education/Training History:

June 2022

IPTM Symposium

October 2020

Napars – Virtual Training, Instructor: John Daily
Investigation of Rollover Crashes

May 2018

Michigan Association of Traffic Accident Investigators - St. Johns, MI
Spring Training Conference

December 2016

Accident Analysis & Reconstruction – Howell, MI
Microsoft Excel Use for Crash Reconstruction

February 2016

Institute of Police Technology & Management/University of North Florida – Jacksonville, Fla.

Heavy Vehicle Electronic Control Module Data Use in Crash Reconstruction

December 2015

University of Tulsa/Tulsa, Oklahoma

Digital Forensics of Vehicle Event Data Recorders in Heavy Duty Commercial Vehicles

June 2013

Oregon State Police/Michigan State Police

Heavy Truck/Commercial Vehicle Crash Reconstruction & Analysis Update

Education/Training History: (continued)

September 2012

IPTM/University of North Florida

Occupant Kinematics (Biomechanics) for Traffic Crash Reconstruction

January 2008

Collision Safety Institute/ARC Network/Bosch Corp. – Houston, Texas

CDR User's Conference-Update on Instructor Course for Tech. Level CDR Operator

August 2007

Collision Safety Institute – Lansing, Michigan

2007 Update (5-day): *CDR Analyst Update*

January 2007

Collision Safety Institute/Vetronix Corporation – Houston, Texas

Train-the-trainer: *Instructor Course – Technician Level CDR Operator*

January 2005

Macomb Community College

Course Study: *Pre-Engineering*

October 2004

Vetronix Corporation – Lansing, Mi.

Course Study: *C.D.R. System Operator - Update*

December 2003

University of North Florida/IPTM – Adjunct Facility – Lansing, Michigan

Course Study: *Human Factors in Crash Reconstruction*

February 2003

North Coast Polytechnic Institute – Westlake, Ohio

Course Study: *Biomechanics in Crash Reconstruction*

October 2002

Safety Solutions Institute/Peterson Truck Co. – Santa Rosa, California

Course Study: *Advanced Heavy Vehicle Collision Reconstruction*

February 2002

Collision Safety Institute (C.S.I.) Extension Service – Lansing, Michigan

Course Study: *Crush Energy Analysis for Traffic Crash Reconstruction*

May 2001

University of North Florida/I.P.T.M. – Adjunct Facility – Lansing, Michigan

Course Study: *Pedestrian/Bicycle Crash Investigation*

May 2001

North Coast Polytechnic Institute – Akron, Ohio
Course Study: *Basic Commercial Vehicle Crash Reconstruction*

April 2001

University of North Florida/I.P.T.M. – Jacksonville, Florida
Course Study: *Applied Physics for Crash Reconstruction*

February 2001

University of North Florida/I.P.T.M. – Melbourne, Fla. Brevard Campus
Course Study: *Motorcycle Crash Investigation*

Education/Training History: (continued)

December 2000

Texas A & M University/Engineering Extension Service – Lansing, Michigan
Course Study: *Electronic Data Recorders – Technology and Applications*

March 2000

University of North Florida/I.P.T.M. – Jacksonville, Fla. Campus
Course Study: *Traffic Crash Reconstruction*

February 2000

University of North Florida/I.P.T.M. – Jacksonville, Fla. Campus
Course Study: *Advanced Traffic Crash Investigation*

December 1987

Michigan State Police Training Academy – Lansing, Michigan
Course Study: *At-Scene Traffic Crash Investigation*

April 1986

Michigan State Police Training Academy – Lansing, Michigan
Trooper/Recruit School

March 1978

Lake Michigan College – Benton Harbor, Michigan
M. L. E. O. T. C. – Basic Regional Police Academy

December 1976

Schoolcraft Community College – Livonia, Michigan
Reserve Police Officers Training Academy

Professional Background:

1999-2012 Michigan State Police – 2nd District Headquarters/Northville, Michigan
Crash Reconstructionist:

- Speed Analysis
- Vector Analysis
- Evidence identification & interpretation
- Causation Factors
- Crush profile interpretation
- Lamp examination
- Restraint System use and application
- Tire examination, design and tread
- Vehicle “black box” downloads and interpretation
- Heavy Truck Crash Analysis
- Braking efficiency, load effects

- 1987 – 1999** Michigan State Police – Southeast Michigan
At-Scene Crash Investigator:
- Scene examination, evidence identification
 - Measuring of scene data, road evidence, vehicles, etc.
 - Photographing scene
 - Basic Speed determinations (Slide to Stop, etc.)
 - Human Factors
- 1986 – 1987** Michigan State Police – Southeast Michigan
Road Trooper:
- Basic Accident Investigation and reporting
 - General traffic patrol and enforcement
 - Criminal Investigation
- 1982 – 1986** New Baltimore Police Department – New Baltimore, Michigan
Patrolman:
- Traffic enforcement
 - Criminal investigation
 - Basic crash reporting
- 1979 – 1982** Clay Township Police Department – Clay Township, Michigan
Patrolman:
- Traffic enforcement
 - Criminal investigation
 - Basic crash reporting
- 1978 – 1979** Ira Township Police Department – Fair Haven, Michigan
Patrolman:
- Traffic enforcement
 - Criminal investigation
 - Basic crash reporting

Expert Testimony:

- 14A District Court of Washtenaw County/Preliminary Examination
Negligent Homicide - Status: *Bound Over* June 2000
- 52-3 District Court of Oakland County (Rochester)/Preliminary Exam
Negligent Homicide - Status: *Bound Over* August 2000
- 22nd Judicial Circuit Court of Washtenaw Co./Trial
Negligent Homicide - Status: *Guilty (Bench Trial)* January 2001
- 3rd Judicial Circuit Court of Wayne Co./Trial
Manslaughter/2 Counts - Status: *Guilty (Jury Trial)* March 2001
- 36th District Court of Wayne Co./Preliminary Exam
O.U.I.L. Causing Death - Status: *Bound Over* April 2001
- 36th District Court of Wayne Co./Preliminary Exam
O.U.I.L. Causing Death - Status: *Bound Over* November 2001
- Grosse Pointe Woods Municipal Court/Preliminary Exam
2nd Degree Murder (Vehicular) - Status: *Bound Over* November 2001

- 36th District Court of Wayne County/Preliminary Exam
Manslaughter - Status: *Bound Over* December 2001
- 36th District Court of Wayne County/Preliminary Exam
Manslaughter - Status: *Bound Over* March 2002
- 36th District Court of Wayne County/Preliminary Exam
O.U.I.L. Causing Death - Status: *Bound Over* April 2002
- 36th District Court of Wayne County/Preliminary Exam
Manslaughter - Status: *Bound Over* July 2002
- 3rd Judicial Circuit Court of Wayne County/Trial
Felony Murder (Co-Defendants) - Status: *Guilty (Jury Trial)* August 2002
- 36th District Court of Wayne County/Preliminary Exam
2nd Degree Murder - Status: *Bound Over* September 2002
- 52-2 District Court of Oakland County/Preliminary Exam
Negligent Homicide - Status: *Unknown* November 2002
- 43rd District Court of Oakland County/Preliminary Exam
Negligent Homicide - Status: *Bound Over* December 2002
- Wayne County Circuit Court – Detroit/Trial (w/Canton Twp. P.D.)
O.U.I.L. Causing Death – Status: *Guilty* January 2003
- Wayne County Circuit Court – Detroit/Trial
Manslaughter w/Motor Vehicle – Status: *Unknown* January 2003
- 36th District Court of Wayne County/Preliminary Exam
Second Degree Murder – Status: *Bound Over* February 2003
- 14A-1 District Court of Washtenaw County/Preliminary Exam
Negligent Homicide – Status: *Bound Over* March 2003
- 36th District Court of Wayne County/Preliminary Exam
Manslaughter w/Motor Vehicle – Status: *Bound Over*
- 14A-1 District Court of Washtenaw County/Preliminary Exam
Manslaughter w/Motor Vehicle – Status: *Bound Over* July 2003
- 36th District Court of Wayne County/Preliminary Exam
Negligent Homicide – Status: *Bound Over* October 2003
- Washtenaw County Circuit Court/Trial
Negligent Homicide – Status: *Ongoing* December – February 2003-04
- Michigan Judicial Tenure Commission/Administrative Hearing
Kalamazoo District Court Defendant: Hon. James P. Noecker – Jan. 2004
- 42-2 District Court of Macomb County/Preliminary Exam
O.U.I.L. Causing Death – Status: *Bound Over* February 2004
- Oakland Circuit Court/Trial
Manslaughter w/Motor Vehicle – Status: *Guilty* May 2004
- 28th District Court of Wayne County-Southgate/Preliminary Exam

- O.U.I.L. Causing Serious Injury – Status: *Unknown* May 2004
- 52-4 District Court of Oakland County – Troy/Preliminary Exam
Second Degree Murder w/Motor Vehicle – Status: *Bound Over* July-2004
 - Wayne County Circuit Court/Trial
O.U.I.L. Causing Death – Status: *Not Guilty* July 2004
 - Macomb County Circuit Court/Trial
Sec. Degree Murder w/Motor Vehicle – Status: *Guilty/Manslaughter* July 2004
 - Oakland County Circuit Court/Trial (Judge Kuhn)
First Degree Murder People vs. Coral Eugene Watts - Status: *Guilty* Nov. 2004
 - 52-2 District Court of Oakland Co. – Rochester Hills/Preliminary Exam
Manslaughter w/Motor Vehicle – Status: *Bound Over* February 2005
 - Oakland County Circuit Court/Trial (Judge Warren)
O.U.I.L. Causing Death – People vs. Kelley Moore – Status: *Guilty* March 2005
 - Oakland County Circuit Court/Trial (Judge Warren)
O.U.I.L. Causing Serious Injury – People vs ? – Status: *Guilty* March 2005
 - Oakland County Circuit Court/Trial People v Terry Draine
Veh. Manslaughter - Status: *Unknown* 2-24-2006
 - 39th District Court/Roseville – Preliminary Exam 03/07/2006
Felonious Driving – People v Pentz Status: *Bound over for Trial*
 - Wayne County Circuit Court/Trial/A.P.A. K. Townes
1st Degree Murder (w/Motor Vehicle) People v ? Status – *Not Guilty* 03-09-2006
 - 41A District – Shelby Township/Macomb County/Preliminary Exam.
Neg. Homicide – People v Jeffrey Long Status: *Bound Over* 04-17-2006
 - Macomb County Circuit Court/Mt. Clemens/Trial
Neg. Homicide – People v Jennifer Emard Status: *Acquitted* 04-19-2006
 - Oakland County Circuit Court/Pontiac/Trial (A.P.A. G. Townsend)
Assault w/Intent to Murder – People v ? Status: *Unknown* 05-02-2006
 - Oakland County Circuit Court/Pontiac/ Trial (A.P.A. B. Morrison)
Negligent Homicide – People v. _____ Status: *Not Guilty by Jury* 08-03-2006
 - Oakland County Circuit Court/Pontiac/**Ginther Hearing** (A.P.A. Anna Latica)
Second Degree Murder Judge Schnelz 10-12-2006
 - Lapeer County Probate Court/Lapeer (Atty. Steve Nash)
Estate Hearing (Crash Settlement) Hon. Justus Scott 09-12-2006
 - Oakland County Circuit Court/Pontiac/Trial-Dec. 2006 (A.P.A. Ken Frazee)
Manslaughter/Motor Vehicle – People v. _____ Status: *Guilty*
 - 36th District Court/Detroit/Preliminary Exam-Apr. 10, 2007 (A.P.A. Chris Kowal)
Negligent Homicide – People v Chantrelle Hawkins Status: *Bound over for Trial*
 - Oakland County Circuit Court/Pontiac/Trial-July 12, 2007 (A.P.A. D. Brainard)

- Negligent Homicide – People v _____ Status: *Not Guilty*
- Wayne County Circuit Court/Detroit/August 2007 (A.P.A. Dwyer)
Neg. Hom. Evidentiary Hearing (black box)/ Peo. v Hawkins Status: *Ev. Admit*
 - Wayne County Circuit Court/Judge Berry-09/07/2007 Neg. Hom.
Daubert Hearing - People v Hawkins Status: *Qualified by the Court*
 - St. Clair County 72nd District Court/Judge Cooley-11/21/2007-2nd Degree Murder
Preliminary Examination – People v Paull Status: *Bound Over*
 - Oakland County Circuit Court/Judge Langford-Morris-01/07/2008 Civil Trial
Estate of Mira Abay v Kelly Brooks, et al. *Wrongful Death*
 - Oakland County Circuit Court/Judge R. Chabot – 7/23-25/2008 Criminal Trial
People v Drzynski – “OWI Causing Death” Status: *Guilty*
 - 46th District Court/Southfield -11/13/2008 Preliminary Examination Manslaughter
Status: *Bound Over*
 - *Deposition/Civil Case* v . City of Warren 5-24-2006
Law Firm of: Garan, Lucow & Miller/Detroit (**PC**)
 - *Deposition/Civil Case* - Hargrove-Wright v Tonsor 06-19-2006
Law Firm of: Jeff Verbeek/Mt. Clemens
 - *Deposition/Civil Case* – Dalla Tyus v City of Detroit 07-11-2006
Law Firm of: Frederic M. Rosen, P.C./Detroit
 - *Deposition/Civil Case* – Curtis v. Braun 10-05-2006 (**PC**)
Law Firm of: Olsman & Mueller
 - *Deposition/Civil Case* – Rozelle v. _____ 10-18-2006 (**PC**)
Law Firm of: Barton Rachwal
 - *Deposition/Civil Case* – Bennett, et al. v. City of Detroit (D.O.T.) 12-20-2006
Law Firm of: Fieger, Fieger, Kenney & Johnson
 - *Deposition(Audio-Visual)/Civil Case* – Grondzik v Betty Burns 2-29-2008
Law Firm of: Provizer & Phillips, P.C. (Atty. Mark Baumkel)
 - *Deposition/Civil Case*- _____ v MDOT. et al. 4-14-2008
Law Firm of: Fieger, Fieger, Kenney & Johnson (Atty. Rebecca Walsh)
 - U.S. Federal/District Court-Eastern District Judge O’Meara - Ann Arbor
Snead v Duplesis, et al. / State of Michigan

NOTE:

The last entry (Federal Court) was in 2010. Mr. Brown has appeared in a number of additional court cases since, in various venues throughout southeast Michigan.

Additional Research/Data Collection:

April 2000 – Escanaba, Michigan

Conducted numerous acceleration and deceleration tests of large log hauling, multi-axle trucks on various surfaces (wet & dry). Studied the effects of loads on the braking systems of these vehicles.

September 2000 – Lansing, Michigan

Tested “yaw sensing” devices with the Bosch Corporation by performing yaw inducing driving maneuvers. Conducted accuracy tests of the “Critical Speed Formula” by comparing that application to the radar assigned speed of vehicles while in a yaw.

December 2000 – Lansing, Michigan

Conducted actual crash tests where data was downloaded from the on-board “Sensing & Diagnostic Module” (S.D.M) and interpreted.

February 2001 – Melbourne, Florida

Conducted “Co-efficient of Friction” tests of motorcycles by dropping from rear of moving pick-up truck for measurements.

July 2001 – Grand Rapids, Michigan

International Association of Accident Reconstructionists Conference (I.A.A.R.S.)
Conducted numerous skid tests of vehicles and compared multiple ways of determining road surface coefficient of friction.

November 2002 – Lansing, Michigan

Tested the accuracy of the Vetronix 3000 Accelerometer by performing numerous skid tests and comparing recorded results with conventional means of drag factor determination.

July 25-27 2006 – Escanaba, Michigan

Conducted live *Airborne Speed Exercises & Analysis*.

October 29, 2007 – Chesterfield, Michigan/Michigan Crash Inv. Network (MCIN)

Conducted numerous skid tests with conventional automobiles, semi-tractors (airbrakes), school buses on variable (hard) surfaces. The test were performed with *Vericom*s, and also compared to drag tire calculations for surface friction.

June – September 2009 – Lansing, Michigan

Performed numerous driving exercises whereupon data was collected regarding E.D.R. (Electronic Data Recorders/”black box”) and their accuracy using other electronic and technological means for comparison. Our findings have since been compiled and I have co-authored a written summary of the results. The summary was peer reviewed (SAE), copyrighted, and has been published in scientific journal.

May 2016 – WREX 2016 Crash Conference – Orlando, Florida

Attended multiple controlled vehicle crash exercises, later reviewing data collected during these crashes. Sat in on a number of various breakout sessions relating to crash investigation, human factors, etc.

October 3rd & 4th 2017 – MATAI Conference – Grand Rapids, MI.

Viewed multiple controlled car crashes, examining various road marks & related damage that followed. Breakout sessions involving CMV (Commercial Motor Vehicle) investigations.

Publications:

- SAE #2010-01-1000 : “*Crown Victoria PCM Accuracy in Steady State and ABS Braking Conditions*”

- SAE #2010-01-1001: “*Accuracy of EDR During Rotation on Low Friction Surface*”

Teaching/Presentations:

- **IPTM/University of North Florida/April 2012**
Adjunct Instructor for the “Institute of Police Technology and Management.” This position involves traveling around the country as a co-instructor in various venues to teach the student identification, access, and the ability to analyze and apply black box data now common in the automotive industry, to real life crash events.
- **Michigan State Police**
Responsible for the continuing education and updating of all “at-scene” crash investigators employed by the Department of State Police in Southeast Michigan. This includes refresher of past and present techniques used in crash investigation as well as keeping up with current technology and its application in the field.
- **Michigan Trucking Association/Eastern Chapter - Truck Safety Council/November 2000**
Update council on current investigative techniques for truck crash investigation. Discuss safety issues related to driver error and its effects on the trucking industry.
- **Traffic Improvement Association (T.I.A.) – Southfield, Mi./March 2003**
Presentation on the use of the C.D.R. Tool and benefits of the “black box”.
- **Michigan State Police – Second District Accident Investigators/June 2003**
Two day class updating current techniques and technology used in investigating serious crash events.
- **Society of Automotive Analysts – Panel Discussion & Debate/November 2003**
“*The Censure of Sensors*” This hour-long forum was moderated by Csaba Csere, Editor-in-Chief, *Car and Driver Magazine*. The presentation consisted of four panelists who gave their viewpoints on the use of “black box” technology as it relates to driving behavior of the motoring public. My perspective and opinions were offered as one of the panelists from a law enforcement perspective.
- **Michigan State Police 120th Recruit School – Lansing, Mi/Sept. 2004**
Conducted a three hour block of instruction on Accident Investigation and Reporting for the ninety-five recruits training to be troopers at the State Police Academy.
- **Michigan Association of Medical Examiners – Pedestrian Crash Investigation and Related Injuries/Mt. Pleasant, Mi - October 2004**
This hour-long power point lead discussion was presented to a group of Medical Examiners & Medical Examiner Investigators from various counties throughout Michigan. We discussed crash investigation & reconstruction in general, specifically focusing on Pedestrian Crashes, dynamics, and correlative injuries.
- **Oakland County Pros. Continuing Education Initiative – Pontiac, Mi. Crash Reconstruction & Black Box Technology – December 2004**
This two-hour presentation was offered to all Asst. Prosecuting Attorneys and generally covered various aspects of crash reconstruction and the “what” to expect from a reconstruction expert. Brief discussion was also had regarding “black box” technology and it’s relevance to our reconstruction efforts.
- **Macomb County Traffic Safety Association – Fraser, Michigan Crash Reconstruction & Black Box Technology – April 2005**
This brief presentation gave the audience of law enforcement personnel a basic overview of our Traffic Crash Reconstruction Services. An introduction to “black box” technology was also presented from which we displayed the actual devices as well as the data that was available and from what vehicles.

- **Benchmark Crash Investigation, LLC – Troy, Michigan**
Basic “At-Scene Crash Investigation Course” – June 2006
Assist retired Lt. Wm. Brandt in teaching class of fifteen “at-scene” crash investigator’s course.
- **St. Clair County Community College – Port Huron, Michigan**
“Crash Reporting & Investigation” – June 2008
Instruct freshman level students on fundamentals of crash reporting and follow-up investigation procedures
- **Bosch CDR Product Summit – Bosch Headquarters Plymouth, MI – October 2012**
End user overview of product (black box) and benefits to successful litigation.
- **State Bar of Michigan / Criminal Division – Mancelona, MI**
“Crash Course in Reconstruction” – February 2013
Presented overview to lawyers and judges on crash reconstruction, current trends, technology and what to look for from experts.
- **Southeast Oakland County Crash Investigation Team (S.O.C.C.I.T.) – May 2013**
Expert Witnesses: “Keys to Success”. Discussed courtroom demeanor and case preparation conducive to successful criminal prosecution in vehicular homicide cases.
- **Michigan Council of Professional Investigators (M.C.P.I.) – Novi, MI – October 2015**
Eyewitness reliability, EDR in Crash Reconstruction, CAD

Memberships:

- **Society of Automotive Engineers**
Affiliate member #6110140265 through October 31, 2016
- **Detroit Department of Transportation Executive Safety Commission**
Currently overseeing and assisting the Detroit Department of Transportation in their efforts to effectively, and unbiasedly, determine causation in traffic crashes involving Detroit Transit buses.
- **Michigan Crash Investigators Network (M.C.I.N.)**
Co-founder of organization consisting of local law enforcement officers throughout southeast Michigan. The purpose and intent of the group is to conduct round table discussions on complex crashes, exchange techniques and strategies in crash investigations, perform field exercises for data collecting, and explore a host of other topics related to overall crash investigation.
- **Michigan Association of Traffic Accident Investigation (MATAI)**
- **National Association of Professional Accident Reconstruction Specialists (NAPARS)**

I am currently an adjunct instructor for IPTM-Jacksonville, Florida teaching EDR use in crash reconstruction.

JANUARY/2021