

## Daniel V. McGehee, PhD

Associate Professor  
Industrial and Systems Engineering  
Director  
National Advanced Driving Simulator Laboratories  
University of Iowa

### Education

- Ph.D. Human Factors, University of Leeds, England 2009  
*Dissertation: Perception & Biodynamics in pre-impact response: a design theoretic rooted in Nature*
- M.S. Human Factors/Engineering Psychology, University of Idaho 1995  
*Thesis: Design & evaluation of an automotive forward collision warning system*
- B.A. Psychology, Central Washington University 1987
- German Language Certificate II, Akademie Klausenhof—Rhede, Germany, 1984

### Professional Experience

- 2016-present Associate Professor, Industrial and Systems Engineering; adjunct associate professor of emergency medicine, occupational and environmental health and public policy; Director, National Advanced Driving Simulator Laboratories
- 1996-2016 *Director*, Human Factors and Vehicle Safety Research Program, University of Iowa, Public Policy Center  
  
*Adjunct Associate Professor*, Mechanical and Industrial Engineering, Occupational and Environmental Health, and Emergency Medicine.
- 1993-1996 Project Manager, Human Factors Research Group, Center for Computer-Aided Design, Iowa Driving Simulator, University of Iowa College of Engineering.
- 1993 Consultant, FHWA TravTek Safety Evaluation.
- 1991-1992 Graduate Research Intern, Vehicle Safety Research Department, General Motors Research Laboratories (summers), Warren, Michigan.
- 1990-1993 Graduate Research Assistant, Human Factors Research Laboratory, Univ. of Idaho.
- 1987-1990 Technical Aide, Crew Systems/Human Factors, Advanced Flight Deck Research Department, Boeing Commercial Airplanes, Seattle, Washington.

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**Grants and Contracts—Awarded**

<u>Title</u>	<u>Role</u>	<u>Dates</u>	<u>Amount</u>
Automated Vehicle Technologies: Performance, Event reconstruction, Recorder data, and Alternative Energies <i>National Transportation Safety Board</i>	Principal Investigator	9/18	\$ 451,118
Automated Vehicle Council Logistics <i>Iowa DOT</i>	Principal Investigator	3/18	\$ 98,491
Hazard Alerting in Rural Driving <i>Iowa DOT (4D)</i>	Principal Investigator	7/18	\$ 493,445
Hazard Alerting in Freight Ops <i>Iowa DOT (4E)</i>	Principal Investigator	7/18	\$ 488,023
Developing connected simulation to study interactions between drivers, pedestrians, and bicyclists <i>Federal Highway Administration</i> <i>US DOT</i>	Principal Investigator	9/17	\$ 1,217,530
Naturalistic and controlled driving in automation <i>Toyota Collaborative Research Center</i>	Principal Investigator	7/17	1,085,856
Human Factors/Safety and Automated Vehicles—V2I-4a <i>Iowa DOT</i>	Principal Investigator	8/17	\$749,611
Evaluation of training programs to accelerate hazard anticipation skills in novice teen drivers <i>AAA Foundation for Traffic Safety</i>	Principal Investigator	2/18	\$378,321
Human Factors in Highly Automated Driving-4b <i>Iowa DOT</i>	Principal Investigator	8/17	\$1,124,116
	Principal Investigator	1/17	\$ 202,942

Examining Motorists' Experiences with, Reactions to, and Training Needs for ADAS <i>AAA foundation</i>	Principal Investigator	4/18	\$ 80,000
TraumaHawk Phase IV <i>Iowa DOT</i>	Principal Investigator	6/17	\$ 30,000
Pilot Analysis of naturalistic driving and seat belt use	Principal Investigator	8/17	\$ 77,722
Engineering and Scenario Development for a Highly Automated Vehicle Demonstration <i>Iowa DOT</i>			
Review of automated vehicle technology: policy and implementation implications <i>Iowa DOT</i>	Principal Investigator	5/1/15-9/16	\$ 42,000
Improving patient outcomes through photographic trauma site documentation in car crashes. <i>Iowa DOT Phase 1-3</i>	Principal Investigator	3/1/14-17	\$165,130
Driver behavior and mitigation in unintended acceleration <i>Toyota Settlement Grant</i>	Principal Investigator	12/19/13-16	\$16,493,344
Analysis of the SHRP2 Naturalistic Driving Study Data Phase II: S08	Principal Investigator	6/1/13-14	\$222,400
An assessment of crash causation and contributing factors using naturalistic driving data <i>AAA Foundation for Traffic Safety</i>	Principal Investigator	3/1/13-15	\$387,170
Improving patient outcomes through photographic trauma site documentation. <i>Iowa DOT</i>	Principal Investigator	10/1/2012-13	\$61,798
Evaluating monitoring and alerting technologies for teen drivers. <i>NHTSA/Westat, Inc.</i>	Principal Investigator	10/1/2011-14	\$398,754

Continued evaluation of an in-vehicle video intervention to improve teen driving. <i>NHTSA/Westat, Inc.</i>	Principal Investigator	9/30/2011-13	\$105,993
Distraction metrics refinement; Predictive Driver-vehicle interface evaluation tool development. <i>NHTSA/Westat, Inc.</i>	Principal Investigator	9/30/2011-13	\$635,139
Task analytic and time series analysis of driver behavior. <i>Toyota CSRC</i>	Principal Investigator	9/1/2011-14	\$998,000
A randomized controlled trial to improve teen driving. <i>National Institutes of Health</i>	Co-Principal Investigator	8/1/2011-15	\$1,186,605
Review of breath alcohol ignition interlock devices: Policy and implementation implications. <i>Iowa DOT</i>	Principal Investigator	5/1/2011-12	\$55,800
Iowa high school administrator survey of graduated driver licensing issues. <i>Iowa DOT</i>	Co-Principal Investigator	9/1/2010-11	\$39,879
Interface metrics for IntelliDrive. <i>NHTSA/Westat, Inc.</i>	Principal Investigator	9/1/2010-14	\$1,471,252
Interface review: tasks 1, 2, 3. <i>DriveCam, Inc.</i>	Principal Investigator	4/16-8/16/2010	\$28,000
Project PATH - Post-Crash testing heuristics. <i>US DOT Federal Transit Admin.</i>	Principal Investigator	9/4/2009-10	\$414,247
The use of video feedback in novice 14-1/2 year-old drivers: The Million-Mile Study. <i>Iowa DOT</i>	Principal Investigator	4/1/2009-11	\$200,000
Post-crash testing heuristics (PATH) Project Phase 1 <i>US DOT Federal Transit Admin.</i>	Co-Principal Investigator	2/26/2009-10	\$15,208
	Principal Investigator	1/1/2009-12	\$145,733

Moving beyond teen crash fatality statistics: The 'Go-Team' Study. <i>Iowa DOT</i>			
The development of selection criteria and test plan for younger driver feedback technologies. <i>AAA Foundation</i>	Principal Investigator	12/22/2008-9	\$24,500
Use of video feedback in urban teen drivers, addendum 1. <i>Iowa DOT</i>	Principal Investigator	3/1/2008-10	\$240,000
SHRP2 Integration of analysis methods and development of analysis plan. <i>National Academies TRB</i>	Principal Investigator	1/28/2008-10	\$421,639
The use of video feedback in urban teen drivers--continuation (Part 3). <i>General Motors</i>	Principal Investigator	1/1/2008	\$120,000
Defining virtual reality driving in Traumatic Brain Injury. <i>NIH/Drexel University</i>	Co-Principal Investigator	7/1/2007-9	\$166,409
The use of video feedback in teen driving: creating the next generation of safe drivers-addendum. <i>American Family Insurance</i>	Principal Investigator	8/5/2007	\$320,681
Examination of alternate means of manually controlling text messages. <i>General Motors</i>	Principal Investigator	9/29/2005-7	\$207,655
Data coding of digital video driver eye glance data for driver workload testing under a wayfinding Scenario: Phase II Testing. <i>General Motors</i>	Principal Investigator	4/16/2005-6	\$33,640
Data coding of digital video driver eye glance data for driver workload testing under a wayfinding scenario. <i>General Motors</i>	Principal Investigator	3/1/2005-6	\$30,990

Data coding of driver eye glance data for the driver workload Metrics Research: Phase II <i>NHTSA</i>	Principal Investigator	1/30/2004-6	\$204,516
The Influence of non-useful alarms on the effectiveness of imminent crash warnings. <i>NHTSA/Westat, Inc.</i>	Co-Principal Investigator	10/1/2001-3	\$1,156,139
Task Order 2 Modifications. <i>NHTSA/Westat, Inc.</i>	Principal Investigator	2/11/2000-3	\$564,230
The design, testing, and evaluation of a lane tracking operator interface display for snow plows. <i>3M Company</i>	Principal Investigator	12/31/98-1	\$241,198
Rear end crash avoidance system (RECAS) algorithms and alerting strategies: Effects on performance and acceptance. <i>NHTSA</i>	Principal Investigator	10/1/1998-1	\$562,569
Driver interface design test and evaluation for a magnetic lateral warning and guidance system. <i>3M Company</i>	Principal Investigator	6/18/1998-99	\$46,000
Human factors in front collision warning systems: operating characteristics and user interface. <i>Society of Automotive Engineers</i>	Principal Investigator	11/14/1997-99	\$80,480
Frontier Phase III: Design of Front-to-Rear-End warning systems. <i>NHTSA</i>	Principal Investigator	1/6/1997-99	\$177,360
Safety evaluation of ITS navigation systems – Mobile Navigation Assistant. <i>US DOT</i>	Principal Investigator	9/18/1995-98	\$257,359
Provide human factors support for the development of specifications and test beds for rear-end collision avoidance systems. <i>NHTSA</i>	Principal Investigator	6/20/1995-96	\$103,258
Human factors support of rear-end collision avoidance systems	Principal Investigator	4/1/1995-97	\$358,110

specification development.  
*NHTSA*

Driving ability/crashes in dementia <i>NIH</i>	Co-Principal Investigator	6/1/1994-97	\$509,130
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Examination of Drivers' Collision Avoidance Behavior Using Conventional Non-Anti-Lock Brakes <i>DOT/NHTSA</i>	Principal Investigator	3/5/93-10	\$198,304
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<b>Funding as PI</b>			<b>\$36,954,479</b>
Funding as Co-PI			\$ 3,073,337

<b>Total funding as PI and Co-PI</b>			<b>\$40,027,816</b>
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## Honors, Awards, and Professional Memberships

SAE Excellence in Oral Presentation Award, Detroit, Michigan (2016)

Iowa Board of Regents Staff Excellence Award (2015).

Distinguished Research Professional of the Year. University of Iowa (2015).

Commissioner's Special Award for Traffic Safety. State of Iowa, Governors Traffic Safety Bureau and Department of Public Safety (2011).

Visiting Professor, Shantou Medical University, Shantou, China (2011).

Co-Convener: National Academy of Sciences/National Research Council/Transportation Research Board, human factors workshop on young drivers (2010).

Convener, Human Factors Workshops. TRB, National Academies (2009).

Co-Convener: National Academy of Sciences/National Research Council /Transportation Research Board, workshop of IRB and ethical issues in naturalistic driving (2008).

Co-Convener: National Academy of Sciences/National Research Council /Transportation Research Board, workshop of Teen Driver Performance and Behavior (2007).

Convener: First International Workshop on Driver Metrics. Ottawa, Canada (Oct., 2006).

Keynote Speaker: University of Iowa Tau Beta PI Engineering Honors Society Lecture: Cognitive Design: Developing Technology for the Human Mind (2004)

Jerome H. Ely Award, Human Factors and Ergonomics Society (2003)  
Best Article Award in Human Factors Journal

Co-founder, International Symposium on Human Factors, Training and Vehicle Design (2001-present).

Jerome H. Ely Award, Human Factors and Ergonomics Society (1998)  
Best Article Award in Human Factors Journal

Member, Human Factors and Ergonomics Society (1987-present)

Member, Society of Automotive Engineers (1997-present)

Member, International Association of Applied Psychology; Division 13, Traffic and Transport Psychology (2003-present)

Transport Affiliate, Transportation Research Board (TRB), National Research Council, National Academy of Sciences. (1993-present)

President, Human Factors Society, University of Idaho Student Chapter (1991, 1992).

Program Chairman, Human Factors Society, Puget Sound Chapter—Seattle (1988 - 1989).

Treasurer, Human Factors Society, Puget Sound Chapter—Seattle (1989).

Member, PSI CHI, National Honor Society for Psychology.

### **Committees—National/International**

Trilateral US-EU-Japan working group in human factors in automated vehicles (one of three US members). 2015-present

Founder, International working group on ‘The First Crash.’ 2014-present.

Appointed Member, United States—European Union Distraction Working Group. 2010-present.

Member, Young Driver Committee, National Academy of Sciences, Transportation Research Board. 2006-present.

Vice-Chair, Society of Automotive Engineers Safety & Human Factors Committee, 2004-present.

Chair, Human Factors & Ergonomics Society Surface Transportation Technical Group, 1998-2001

Program Chairman, Surface Transportation Committee, Human Factors and Ergonomics Society (1996-1997).



Member, SAE Safety and Human Factors Committee, (1993-present).

Co-Founder, Surface Transportation Committee, Human Factors & Ergonomics Society (1993).

Member, Transportation Research Board, A3BO2: User Characteristics, 2000-2004

Member, Transportation Research Board, A3BO8: Simulation & operator characteristics 1996-2000

## **Ad-hoc Reviewer**

Ergonomics in Design

Pediatrics

Traffic Injury Prevention

American Journal of Public Health

Human Factors

Transportation Research; Part F

ITS Journal. Intelligent Transportation Society of America.

Transportation Research Record, National Research Council, National Academy of Sciences

## **Conference Chairships**

General Co-chair and Organizer: Driving Assessment 2019: The 10<sup>th</sup> International Symposium on Human Factors in Driver Assessment, Training and Vehicle Design, Santa Fe, NM

General Co-chair and Organizer: Driving Assessment 2017: The 9<sup>th</sup> International Symposium on Human Factors in Driver Assessment, Training and Vehicle Design, Manchester, VT

General Co-chair and Organizer: Driving Assessment 2015: The 8<sup>th</sup> International Symposium on Human Factors in Driver Assessment, Training and Vehicle Design, SnowBird, Utah

General Co-chair and Organizer: Driving Assessment 2013: The 7<sup>th</sup> International Symposium on Human Factors in Driver Assessment, Training and Vehicle Design, Bolton Landing, New York.

General Co-chair and Organizer: Driving Assessment 2011: The 6<sup>th</sup> International Symposium on Human Factors in Driver Assessment, Training and Vehicle Design, Squaw Valley, California.

General Co-chair and Organizer: Driving Assessment 2009: The 5<sup>th</sup> International Symposium on Human Factors in Driver Assessment, Training and Vehicle Design, Big Sky, Montana.

General Co-chair and Organizer: Driving Assessment 2007: The 4<sup>th</sup> International Symposium on Human Factors in Driver Assessment, Training and Vehicle Design, Stevenson, Washington.

General Co-chair and Organizer: Driving Assessment 2005: The 3<sup>rd</sup> International Symposium on Human Factors in Driver Assessment, Training and Vehicle Design, Rockport, Maine.

General Co-chair and Organizer: Driving Assessment 2003: The 2<sup>nd</sup> International Symposium on Human Factors in Driver Assessment, Training and Vehicle Design, Park City, Utah.

General Co-chair and Organizer: Driving Assessment 2001: The 1<sup>st</sup> International Symposium on Human Factors in Driver Assessment, Training and Vehicle Design, Aspen, Colorado.

Moderator, The Safety of Voice Systems in Vehicles, 2001 Human Factors and Ergon. Soc. MSP.

Moderator; Interface Design Considerations for Emerging Vehicle Control Technologies, Intelligent Transportation Society of America Annual Meeting, 2000. Boston, MA.

Program Chair; Surface Trans. Section, Human Factors and Ergon. Society, 1998. Houston, Texas.

Program Chair; Surface Trans. Section, Human Factors and Ergonomics Society, 1998. Chicago, IL.

Program Chair: Driver Performance and Behavior. Human Factors and Ergonomics Society, 1997. Albuquerque, New Mexico.

Program Chair: Crash Causation and Risk. Human Factors and Ergonomics Society, 1996. Philadelphia, Pennsylvania.

Program Chair: Driver Behavior Session. 17th International Symposium in Visibility and Driver Behavior 1996. Transportation Research Board, National Research Council.

## **University Service**

Iowa Formula One Student Club (Co-Founding faculty member and co-advisor) 2017-present

College of Engineering Strategic Planning Committee (2017-present)

DEO Review Committee, Mechanical and Industrial Engineering (2018)

Graduate Review Committee, Industrial and Systems Engineering; Director 2018 (January 2017-present)

Undergraduate Review Committee, Industrial Engineering, (2016-2017)

Member, Executive Board, UI Injury Prevention Research Center (2007-present)

Member, UI Institutional Review Board for Ethics in Human Subjects (2004-2010)

Chair, UI Interdisciplinary Human Factors Lecture Series, Public Policy Center (1996-present)

Chair, UI Focused Interdisciplinary Research Exchange (FIRE sessions), University of Iowa

Advisor, UI Office of Corporate Partnerships, Office of the VP Research (2001-2005)

Advisor, UI Faculty Search Committee, Department of Industrial Engineering (1996-1998).

Member, tenure review committee, University of Idaho, Department of Psychology (1991–1992).

## Publications (March 1, 2019)

Citations 3,084  
h-index 25

### Refereed Archival Journal Publications (49 published)

1. Wilkenson, M.E., **McGehee, D.V.**, (2019). [Auditory global positioning system and advanced driver assistance system: a safer alternative to bioptic telescopes for drivers who are visually impaired?](#) *Optometry and Visual Science* 96 (2). 130-132.
2. Missikpode, C. Peek-Asa, C., **McGehee, D.V.**, Wallace, R. (2019). [Classifying and predicting risky driving among novice drivers: a group-based trajectory approach.](#) *Journal of Safety Research*. 68 215-333
3. Missikpode, C. Peek-Asa, C. **McGehee, D.V.**, Torner, J. Wakeland, W., Wallace, R. (2018). [Teen driver system modeling: a tool for policy analysis.](#) *Injury Epidemiology*. Vol. 5: 34-44.
4. Wu, Y., Boyle, L.N., **McGehee, D.V.** (2018). [Evaluating variability in foot to pedal movements using functional principal component analysis.](#) *Accident Analysis and Prevention*. Vol. 118: 146-153.
5. Carney, C., Harland, K.K., **McGehee, D.V.** (2018). [Examining teen driver crashes and the prevalence of distraction: Recent trends 2007-2015.](#) *Journal of Safety Research*, Vol 64; 21-27.
6. Stewart, K., Fan, J., Schwarz, C., **McGehee, D.V.** (2018). [Geospatial analysis of residential parking behaviors using a semantic modeling approach.](#) *Travel Behavior and Society* 11, 9-11.
7. Merat, N., Seppelt, B., Louw, T., Engstrom, J., Lee, J.D., Green, C.A., Monk, C., Itoh, M., **McGehee, D.V.**, Sunda, T., Unoura, K., Victor, T., Schieben, A., Keinath, A. (2018). [The “out of the loop” concept in automated driving: Proposed definition, measures and implications.](#) *Cognition, Technology and Work*. 1-12.

8. Wu, Y., Boyle, L.N., **McGehee, D.V.**, Ebe, K., Foley, J. (2017). [Foot placement during error and pedal applications in naturalistic driving.](#) *Accident Analysis and Prevention. Vol 99, part A. pp 102-109.*
9. Yang, J.Z., Li, L., Wu, H.Q., **McGehee, D.V.**, Peek-Asa, C. (2017). [A comparative analysis of child passenger restraint use in China and the United States.](#) *World Journal of Pediatrics. 13 (6), 593-598.*
10. **McGehee, D.V.**, Roe, C., Ng Boyle, L., We, Y., et al. (2016). [The Wagging Foot of Uncertainty: Data Collection and Reduction Methods for Examining Foot Pedal Behavior in Naturalistic Driving.](#) *SAE Int. J. Trans. Safety, 4(2): 289-294.*
11. Carney, C., Harland, K.S., **McGehee, D.V.** (2016). [Using Event-Triggered Naturalistic Data to Examine the Prevalence of Teen Driver Distractions in Rear-End Crashes.](#) *Journal of Safety Research. Vol. 57; 47-52.*
12. McDonald, A.B., **McGehee, D.V.**, Chrysler, S.T., Askelson, N.M., Angell, L.S., Seppelt, B.D. (2016). [National survey identifying gaps in consumer knowledge of advanced safety vehicle systems.](#) *Transportation Research Record. 2559: 1-6.*
13. Harland, K., Carney, C., **McGehee, D.V.**, Weiss, M., Raby, M. (2016). [Analysis of Naturalistic Driving Videos of Fleet Services Drivers to Estimate Driver Error and Potentially Distracting Behaviors as Risk Factors for Rear-end versus Angle Crashes.](#) *Traffic Injury Prevention. 17 (5); 465-471/*
14. Oneyear, N., Hallmark, S. Carney, C., **McGehee, D.V.** (2016). [Prediction of lane encroachment on rural two-lane curves using the SHRP2 naturalistic driving study data.](#) *Transportation Research Record.*
15. Hamann, C., Peek-Asa, C., **McGehee, D.V.** (2015). [69 helmet camera study of adult and child bicycling patterns and injury risk factors by gender.](#) *Injury Prevention. British Medical Journal. Vol 21.*
16. Hallmark, S.L., Tyner, S., Oneyear, N., Carney, C. and **McGehee, D.V.** (2015). [Evaluation of driving behavior on rural 2-lane curves using the SHRP2 naturalistic driving study data.](#) *Journal of Safety Research.*
17. Wu, Y., Boyle, L.N., **McGehee, D.V.**, Ebe, K., Foley, J. (2015). [Modeling types of pedal applications using a driving simulator.](#) *Human Factors: The Journal of the Human Factors and Ergonomics Society.*
18. Klauer, S., Ehsani, J., **McGehee, D.V.**, Manser, M. (2015). [The effect of secondary task engagement on adolescents driving performance and crash risk.](#) *Journal of Adolescent Health. 57(1) 36-43.*
19. **McGehee, D.V.** (2014). [Visual and cognitive distraction metrics in the age of the smart phone.](#) *Annals of Advances in Automotive Medicine. 58: 15-23.*

20. Durbin, D., **McGehee, D.V.**, Fisher, D.L., McCartt, A. (2014). [Special considerations in distracted driving with teens](#). *Annals of Advances in Automotive Medicine*, 58:69-83.
21. Chen, X.J., Yany, J.Z., Peek-Asa, C., **McGehee, D.V.**, Li, L.P. (2014). [Parents' knowledge, attitude, and use of child restraints in Shantou, China](#). *American Journal of Preventative Medicine*, 46(1): 85-88.
22. Jennissen, C. A., Marsico, J., Steffen, J., Schnell, T., **McGehee, D.V.**, & Denning, G. (2012). [187 Computer Modeling to Investigate the Risk of All-Terrain Vehicle Rollover While Turning](#). *Annals of Emergency Medicine*, 60(4), S67.
23. Jennissen, C., Marsico, J., Steffen, J., Schnell, T., **McGehee, D.V.**, & Denning, G. (2012). [Optimizing seat length design to minimize extra passengers on all-terrain vehicles](#). *Injury prevention; British Medical Journal*, 18.
24. **McGehee, D.V.** (2011). [The building blocks of driver distraction policy](#). *Ergonomics in Design*, 19: 25-27.
25. Lee, J. D., **McGehee, D. V.**, Brown, J. L., Richard, C. M., Ahmad, O., Ward, N. J. (2011). [Matching simulator characteristics to highway design problems](#). *Transportation Research Record*, Journal of the Transportation Research Board; No. 2248; 53-60.
26. **McGehee, D.V.**, Carsten, O.M.J. (2010). [Perception and biodynamics in pre-crash response](#). *Annals of Advances in Automotive Medicine*, 54: 315-331.
27. Carney C., **McGehee D.V.**, Lee J.D., Reyes, M., Raby, M. (2010). [Using an Event-Triggered Video Intervention System to Expand the Supervised Learning of Newly Licensed Adolescent Drivers](#). *American Journal of Public Health*, 100(6): 1101-6.
28. **McGehee, D.V.**, Carney, C., Raby, M. Lee, J.D., Reyes, M. (2007). [Extending parental mentoring using an event-triggered video intervention in rural teen drivers](#). *Journal of Safety Research*, 38: 215–227.
29. Lee, J. D., **McGehee, D. V.**, Brown, T. L., & Nakamoto, J. (2007). [Driver sensitivity to brake pulse duration and magnitude](#). *Ergonomics*, 50(6), 828-836.
30. Lee, J. D., **McGehee, D. V.**, Brown, T. L., & Marshall, D. C. (2006). [Effects of adaptive cruise control and alert modality on driver performance](#). *Transportation Research Record* 1980(1): 49-56.
31. Donmez, B., Boyle, L.N., Lee, J. and **McGehee, D.V.** (2006) [Drivers' attitudes toward imperfect mitigation strategies](#). *Transportation Research Part F*, 9, 6, 387-398.
32. Hoffman, J., Lee, J.D., **McGehee, D.V.**, Gellatly, A. (2005). [Visual Sampling of in-vehicle text messages: the effects of number of lines and page presentation](#). *Transportation Research Record*: 1937: 22-31.

33. **McGehee, D.V.**, Lee, J.D., Dawson, J, Rizzo, M. (2004). [A quantitative analysis of steering adaptation on a high performance driving simulator.](#) *Transportation Research, Part F: Traffic Psychology and Behavior.* 7(3): 181 - 196.
34. Lee, J.D., **McGehee, D.V.**, Brown, T.L., Reyes, M.L. (2002) [Collision warning timing, driver distraction, and driver response to imminent rear-end collisions in a high fidelity driving simulator.](#) *Human Factors: The Journal of the Human Factors and Ergonomics Society.* 44(2): 314-334.
35. **McGehee, D.V.**, Brown, T.L., and Lee, J.D., Wilson, T. (2002). [Warning timing and collision avoidance behavior in stationary lead vehicle crashes.](#) *Transportation Research Record: Journal of the Transportation Research Board.* 1803: 1-7.
36. Hoffman, J., Lee, J.D., Brown, T.L., **McGehee, D.V.**, (2002). [Comparison of Braking in a High Fidelity Simulator with Test Track Data.](#) *Research Record: Journal of the Transportation Research Board.* 1803: 59-65.
37. Rizzo, M., **McGehee, D.V.**, Dawson, J., Anderson, S. (2001). [Simulated car crashes at intersections in drivers with Alzheimer's Disease.](#) *Alzheimer Disease and Associated Disorders.* 15(1), 10-20.
38. Brown, T. L., Lee, J. D., & **McGehee, D. V.** (2001). [Human performance models and rear-end crash avoidance algorithms.](#) *Human Factors: The Journal of the Human Factors and Ergonomics Society.* 43: 462-482.
39. Schnell, T., Aktan, F., **McGehee, D.V.**, Dvorak, M., Hunt, J., Reyes, A., Sorak, D. (2001) ["Pedestrian Visibility under Automobile Lowbeam Headlight Illumination, with and without Headlight Covers"](#), *Transportation Research Record* 1773: 114-126.
40. Brown, T. L., Lee, J. D., & **McGehee, D. V.** (2000). [An attention-based model of driver performance in rear-end collision situations.](#) *Transportation Research Record:* 1724:14-20.
41. **McGehee, D.V.**, Raby, M., & Nourse, G.E. (2000). Defining the operator interface of a snowplow lane tracking system from field interviews and surveys. [Transportation Research Record: Journal of the Transportation Research Board.](#)1700: 38-44.
42. Mazzae, E.N., Baldwin, G.H.S, **McGehee, D.V.** (1999). [Driver crash avoidance behavior with ABS in an intersection incursion scenario on the Iowa Driving Simulator.](#) Society of Automotive Engineers. *SAE Journal* 1999-01-1290.
43. Dingus, T.A., **McGehee, D.V.**, R.N. Manakkal, S.J. Jahns., J.M. Hankey, and C. Carney (1997). [Human factors field evaluation of automotive headway maintenance/collision warning devices.](#) *Human Factors: The Journal of the Human Factors and Ergonomics Society*, 39(2). 216-229. **Winner of the Jerome H Ely Best Article award in the Journal Human Factors.**
44. Lee, J., **McGehee, D.V.**, T.A. Dingus, and T. Wilson (1997). Collision avoidance behavior of unalerted drivers' using a front-to-rear-end collision warning display on the Iowa Driving Simulator. [Transportation Research Record: Journal of the Transportation Research Board.](#) **National Research Council.**

45. Rizzo, M., S.R. Reinach, **McGehee, D.V.** and J. Dawson (1997). [Simulated car crashes in drivers with Alzheimer's Disease.](#) *Archives of Neurology: American Medical Association.* 54. 545-551.
46. Dingus, T.A., M.C. Hulse, M.A. Mollenhauer, R.N. Fleischman, D.V. **McGehee**, and N. Manakkal (1997). [Effects of Age, System Experience, and Navigation Technique on Driving with an Advanced Traveler Information System.](#) *Human Factors Journal: The Journal of the Human Factors and Ergonomics Society.* 39(2), 177-199.
47. Reinach, S.J., M. Rizzo and D.V. **McGehee** (1996). Driving with Alzheimer's Disease: The anatomy of a crash. [International Journal of Alzheimer's Disease and Associated Disorders.](#) 1:21-27
48. Rizzo, M., S.R. Reinach, **D.V. McGehee**, and K. Laird (1997). [Simulated car crashes and crash predictors in Drivers with Alzheimer's Disease.](#) *Annals of Neurology*; 54(5):545-551.
49. Rizzo, M., S.R. Reinach, **D.V. McGehee**, and T.A. Dingus (1995). Simulated car crashes and the useful field of view. [Investigative Ophthalmology & Visual Science.](#) (37:3).

### Peer reviewed journal editorials (4 published)

50. Peek-Asa, C., **McGehee, D.V.**, Ebel, B. (2014). [Increasing safe teenaged driving: Time to integrate the growing evidence base.](#) *JAMA Pediatrics* doi:10.1001/2014.582.
51. Winston, F.K., McDonald, C.C., and **D.V. McGehee** (2014). ["Adolescents with ADHD demonstrate driving inconsistency."](#) *Journal of Pediatrics* 164(3): 674-675.
52. Winston, F.K., McDonald, C.C., **McGehee, D.V.** (2013). [Are we doing enough to prevent the perfect storm? Novice drivers, ADHD, and distracted driving.](#) *JAMA Pediatrics.* 167(10): 892-894.
53. **McGehee, D.V.** (2010). Shifting driver distraction. *Highway to Justice.* A Joint publication of the American Bar Association and the National Highway Traffic Safety Administration (3)5.

### Peer reviewed proceedings articles (50 published)

54. Reyes, M.L., Roe, C.A., McDonald, A.B., Freiburg, J.E., **McGehee, D.V.** (2017). [Adaptive Cruise Control: First Impressions Matter.](#) *SAE World Congress. Technical paper 2017-01-1382.*
55. **McGehee, D.**, McDonald, A., Reyes, M., Roe, C. (2017). [As the Technology Evolves, the Consumer Education Must, Too.](#) *Proceedings of the 2017 International Technical Conference on the Enhanced Safety of Vehicles*, US National Highway Traffic Safety Administration.
56. Reyes, M., **McGehee, D.**, McDonald, A., Roe, C. (2017). An Evaluation of How Lane Keeping Assist Anomalies in On-Road Driving Affect Driver Trust. *Road Safety & Simulation International Conference*, Hague, Netherlands.

57. McDonald, A., **McGehee, D.V.**, Reyes, M.L., and Roe, C.A. (2016). *A Drive Into Understanding Consumer Mental Model and Trust About Advanced Vehicle Safety Systems*. Automated Vehicles Symposium, San Francisco, CA.
58. McDonald, A.B., Reyes, M.L., Roe, C.A., **McGehee, D.V.**, (2017). Driver understanding of ADAS and evolving consumer education. [25<sup>th</sup> International Technical Conference on the Enhanced Safety of Vehicles. Detroit, MI. 17-0373.](#)
59. Reyes, M.L., Marshall, D., **McGehee, D.V.** (2016). [Public opinion toward all-passenger seat belt laws in Iowa.](#) Transportation Research Board 94<sup>th</sup> Annual meeting. Washington, DC.
60. **McGehee, D.V.**, Kaufman, R. Buresh, C.T., Harland, K., Lilienthal, M. (2015). [Utilization of crash scene photography documenting vehicle damage and intrusion to improve trauma care preparedness.](#) *Proceedings of the 2015 Enhanced Safety of Vehicles Conference*. US National Highway Traffic Safety Administration.
61. Schwarz, C., **McGehee, D. V.**, & Brown, T. L. (2015). *Transfer of Control and Information Needs in Automated Highway System Driving: What Was Old Is New Again*. Transportation Research Board 94th Annual Meeting, Washington, DC.
62. Hallmark, S., Oneyear, N., Wang, B., Tyner, S., Carney, C., **McGehee, D.V.** (2015). [Identifying curve reaction point using naturalistic driving study data.](#) Proceedings of the IEEE 18<sup>th</sup> International Conference on Intelligent Transportation Systems.
63. Oneyear, N., Hallmark, S., Tyner, S., **McGehee, D.V.**, Carney, C. (2015). [Development of a conceptual model of curve driving for isolated rural two-lane curves using SHRP2 naturalistic driving data.](#) *5<sup>th</sup> International Symposium on Highway Geometric Design. Vancouver, Canada.*
64. Jennissen, C.A., DeShaw, J., Meusch, J.C., Denning, G.M., **McGehee, D.V.**, Rahmatalla, S.F. (2014). [Dynamic responses of experienced all-terrain vehicle operator to simulator unexpected terrain changes.](#) *Proceedings of the Annual Human Factors and Ergonomics Society Annual Meeting.*
65. Hamann, C.J., Pooley, M., **McGehee, D.V.**, Peek-Asa, C. (2014). [A naturalistic study of child and adult bicycling behaviors and risk exposure.](#) *International Cycling Safety Conference. Gothenburg, Sweden.*
66. DeShaw, J., Jennissen, C.A., Denning, G.M.C., **McGehee, D.V.**, Rahmatalla, S.F. (2013). [Active riding of experienced all-terrain vehicle operators during unexpected terrain changes as determined by a simulator.](#) *American Academy of Pediatrics National Conference.*
67. Chrysler, S.T., Cooper, J., **McGehee, D.V.**, Yager, C. (2013). [Comparison of driver distraction evaluations across two simulator platforms and an instrumented vehicle.](#) *Proceedings of the 7<sup>th</sup> International Driving Symposium on Human Factors in Driver Assessment, Training and Vehicle Design.* 545-550.



68. Bărăgan, A.E., **McGehee, D.V.**, Devos, I.E., Rus, D. (2013). A comparative analysis of pre-hospital emergency services in the US and Europe. *Proceedings of the 2<sup>nd</sup> International Conference on Traffic and Injury Prevention*. Zenica, Bosnia and Herzegovina.
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89. Rizzo, M., Reinach, S.R., **McGehee, D.V.** (1996). [Dissection of car crashes in high-fidelity driving simulations.](#) *Proceedings of the Human Factors and Ergonomics Society—Europe.*
90. Hankey, J.M., **D.V. McGehee**, T.A. Dingus, E.N. Mazzae, and W.R. Garrott (1996). [Initial driver avoidance behavior and reaction time to an unalerted intersection incursion.](#) *Proceedings of the 40th Annual Meeting of the Human Factors and Ergonomics Society.*
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101. **McGehee, D.V.**, T.A. Dingus, A.B. Horowitz, L.M. Oberdier, and J.S. Parikh (1993). [Effect of a "Headway" display on driver following behavior: Experimental field test of design and initial results](#). *Intelligent Vehicles '93 Symposium, IEEE and SAE*, Tokyo, Japan.
102. **McGehee, D.V.**, T.A. Dingus, and A.B. Horowitz (1992). [The potential value of a front-to-rear-end collision warning system based on factors of driver behavior, visual perception and brake reaction time](#). *Proceedings of the 36th Annual Meeting of the Human Factors Society*.
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## Edited Proceedings and Books (9 published)

104. **McGehee, D.V.**, Lee,, J.D., Rizzo, M. & Boyle, L.N. (2017). [\*Proceedings of the Ninth International Driving Symposium on Human Factors in Driving Assessment, Training, and Vehicle Design.\*](#) Manchester, Vermont: The University of Iowa, Public Policy Center.
105. **McGehee, D.V.**, Lee,, J.D., Rizzo, M. & Boyle, L.N. (2015). [\*Proceedings of the Seventh International Driving Symposium on Human Factors in Driving Assessment, Training, and Vehicle Design.\*](#) Snow Bird, Utah: The University of Iowa, Public Policy Center.
106. **McGehee, D. V.**, Lee, J. D., Rizzo, M., & Boyle, L. N. (2013). [\*Proceedings of the Seventh International Driving Symposium on Human Factors in Driving Assessment, Training, and Vehicle Design.\*](#) Bolton Landing, New York: The University of Iowa, Public Policy Center.
107. **McGehee, D. V.**, Lee, J. D., Rizzo, M., & Boyle, L. N. (2011). [\*Proceedings of the Sixth International Driving Symposium on Human Factors in Driving Assessment, Training, and Vehicle Design.\*](#) Lake Tahoe/Squaw Valley, California: The University of Iowa, Public Policy Center.
108. **McGehee, D. V.**, Lee, J. D., Rizzo, M., & Boyle, L. N. (2009). [\*Proceedings of the Fifth International Driving Symposium on Human Factors in Driving Assessment, Training, and Vehicle Design.\*](#) Big Sky, Montana. The University of Iowa, Public Policy Center.
109. **McGehee, D. V.**, Lee, J. D., Rizzo, M., & Boyle, L. N. (2007). [\*Proceedings of the Fourth International Driving Symposium on Human Factors in Driving Assessment, Training, and Vehicle Design.\*](#) Stevenson, Washington: The University of Iowa, Public Policy Center.
110. **McGehee, D. V.**, Lee, J. D., Rizzo, M., & Boyle, L. N. (2005). [\*Proceedings of the Third International Driving Symposium on Human Factors in Driving Assessment, Training, and Vehicle Design.\*](#) Rockport, Maine: The University of Iowa, Public Policy Center.
111. **McGehee, D. V.**, Lee, J. D., Rizzo, M. (2003). [\*Proceedings of the Second International Driving Symposium on Human Factors in Driving Assessment, Training, and Vehicle Design.\*](#) Park City, Utah: The University of Iowa, Public Policy Center.
112. **McGehee, D. V.**, Lee, J. D., Rizzo, M. (2001). [\*Proceedings of the First International Driving Symposium on Human Factors in Driving Assessment, Training, and Vehicle Design.\*](#) Snowmass/Aspen, Colorado: The University of Iowa, Public Policy Center.

## Book Chapters (2 published)

113. Reyes, M.L., Carney, C., **McGehee, D.V.** (2015). Young drivers. Human Factors in Traffic Safety. Alison Smiley ed. Third Edition. Lawyers and Judges Publishing.
114. **McGehee, D.V.** (1995). Head Injury in Automobile Crashes: Human factors, effects and prevention. *In: Head Injury and Post-concussive Syndrome. M. Rizzo and D. Tranel, Eds. New York: Churchill Livingstone.*

## Technical Reports

115. Roe, C., **McGehee, D.V.** (2017) An Investigational Analysis of Driver Seat Belt Use, Timing, and Position in Naturalistic Driving. Toyota Collaborative Safety Research Center. Ann Arbor, Michigan
116. McDonald, A.B., Reyes, M.L., Roe, C.A., Friberg, J.E., Faust, K.S., and **McGehee, D.V.** (2016). Technology Demonstration Study. The University of Iowa and National Safety Council, Iowa City, IA.
117. **McGehee, D.**, Schwarz, C., Smith, B.W., Brewer, M. (2016). Review of Automated Vehicle Technology: Policy and Implementation Implications. Iowa DOT technical report.
118. Carney, C., **McGehee, D.V.**, Harland, K., Weiss, M. & Raby, M. (2016). Using Naturalistic Driving Data to Examine Driver Behaviors Present in Motor Vehicle Crashes, 2007-2015. AAA Foundation for Traffic Safety, Washington DC.
119. Hallmark, S.L., Oneyear, N., Tyner, S., **McGehee, D.V.**, Carney, C. (2014). Analysis of the SHRP 2 Naturalistic Driving Study Data. National Academy of Sciences: Transportation Research Board Report.
120. Carney, C., **McGehee, D.V.**, Harland, K. (2014). An Assessment of Crash Causation and Contributing Factors Using Naturalistic Driving Data. AAA Foundation for Traffic Safety, Washington, DC.
121. Reyes, M.L. and **McGehee, D.V.** (2014). A comparative analysis of seat belt laws in the US. Iowa DOT and US DOT FHWA technical report.
122. **McGehee, D.V.**, M.L. Reyes, and C. Carney (2014). *Age vs. Experience: Evaluation of a Video Feedback Intervention for Newly Licensed Teen Drivers*. US DOT FHWA No. TPF-5 (207).
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125. **McGehee, D.V.**, Reyes, M.L., Carney, C. (2013). Moving beyond ten crash fatality statistics: the go-team study. Iowa DOT and FHWA technical report. 14930.
126. **McGehee, D.V.**, Hoffman, J.D., Lee, J.D., Angell, L.A. (2012). The design of in-vehicle alpha-numeric text message systems. Society of Automotive Engineers Standard. J-2831.
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129. Gross, N., **McGehee, D.V.**, Peek-Asa, C., Nambisan, S. (2012). Review of Breath Alcohol Ignition Interlock Devices: Policy Recommendations. Iowa DOT technical report.
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131. Cooper JM, Angell L, **McGehee D.V.**, Chrysler ST, Yager C (2011) *Best Practices for Connected Vehicle Interfaces: Task 4 – Execute Test Plan*. DTNH22-05-D01002 TO20, May 2011, National Highway Traffic Safety Administration.
132. Angell, L., Cooper, J., **McGehee, D.V.**, Chrysler, S.T., Yager, C. (2010). Test Procedures for Evaluating Distraction Potential in IntelliDrive Systems: Task 1, Literature Review. NHTSA DTNH22-05-D01002; TO20.
133. Angell, L., Cooper, J., **McGehee, D.V.**, Chrysler, S.T., Yager, C. (2010). Test Procedures for Evaluating Distraction Potential in IntelliDrive Systems: Task 2, Gap Identification, Analysis, & Proposed Approach. NHTSA DTNH22-05-D01002; TO20.
134. **McGehee, D.V.** (2009) Perception and biodynamics in pre-crash response: A design theoretic rooted in Nature. Unpublished PhD Dissertation, University of Leeds Institute for Transport Studies.
135. **McGehee, D.V.**, Hoffman, J.D., Lee, J.D. (2004). Preliminary design and engineering recommendations for in-vehicle text message systems. General Motors Technical Report. Telematics and Infotainment Systems. *General Motors Technical Center*. Warren, Michigan.
136. **McGehee, D.V.**, Raby, M. (2003). The design and evaluation of snowplow lane awareness system. Final Report for the 3M Company and the Minnesota Department of Transportation.
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138. **McGehee, D.V.**, T. Brown, and T. Wilson (1998). Examination of drivers' collision avoidance behavior in a stationary lead vehicle situation using a front-to-rear-end collision warning system. USDOT/NHTSA Office of Crash Avoidance Research Technical Report. Contract DTNH22-93-C-07326.
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140. Stoner, J.W., Evans, D.F., **McGehee, D.V.** (1997). Development of vehicle simulation. California PATH Research Report UCB-ITS-PRR-97-25.
141. Mollenhauer, M., **D.V. McGehee**, T.L. Cumming, V. Neale, T. Dingus and V. Inman (1997). Safety Evaluation of the ADVANCE Mobile Navigation Assistant. Volpe National Transportation Systems Laboratory. US Department of Transportation Technical Report.
142. **McGehee, D.V.**, J. Lee, and T.A. Dingus (1996). Collision avoidance behavior of unalerted drivers' using a front-to-rear-end collision warning display on the Iowa Driving Simulator. *Frontier Engineering, DOT/NHTSA technical report. Contract No. DTNH22-93-C-07326.*
143. **McGehee, D.V.**, J.M. Hankey, T.A. Dingus, E.N. Mazzae, W.R. Garrott, A. Grant, and S.R. Reinach (1996). Examination of drivers' collision avoidance behavior using conventional non-anti-lock brakes. *National Highway Traffic Safety Administration Technical Report. Contract No. NRD-20-95-08086.*
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145. **McGehee, D.V.**, S.J. Jahns, and T.A. Dingus (1995). A human factors analysis of U.S. and international standards on automotive warning displays. *Frontier Engineering, DOT/NHTSA technical report. Contract No. DTNH22-93-C-07326.*
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148. Dingus, T.A., **D.V. McGehee**, J.M. Hankey, S.J. Jahns, M.A. Mollenhauer, C. Carney, S.R. Reinach, and R.N. Manikkal (1995). Driver interface specification for the design of collision warning, avoidance and adaptive intelligent cruise control systems. *Frontier Engineering, DOT/NHTSA technical report. Contract No. DTNH22-93-C-07326.*
149. Bloomfield, J.P., J.R. Buck, M. Booth, R. Romano, S. Carroll, **D.V. McGehee**, and R. North (1995). Human factors design of automated highway systems; experiment 1 & 2: the effects of vehicle separation, design velocity, traffic density and drivers age on the transfer of control from automated highway system to the driver. *Federal Highway Administration Technical Report No. FHWA-RD-94-114.*
150. **McGehee, D.V.**, T.A. Dingus, and M.A. Mollenhauer (1994). A review of human factors studies and issues in automotive front-to-rear-end collision intervention systems. *Frontier Engineering, DOT/NHTSA, Task I, Volume VI report.*

151. Dingus, T.A., **D.V. McGehee**, M.C. Hulse, S.J. Jahns, R. N. Manakkal, M.A. Mollenhauer, and R.N. Fleischman (1994). TravTek evaluation task C3 – camera car study. *Federal Highway Admin. Technical Report No. FHWA-RD-94-076*.

## Invited Lectures

1. Noonan, T.Z. and **McGehee, D.V.** (2019). A game theoretic decision-making approach to behavior planning of autonomous agents. MIT Age Lab. Cambridge, MA.
2. **McGehee, D.V.** (2018). Law enforcement issues in Automated Driving. International Association of Police Chiefs Annual Meeting. Orlando, FL.
3. **McGehee, D.V.** (2018). Automated Driving Systems. National Association of Women Highway Safety Leaders. Atlanta, GA.
4. **McGehee, D.V.** (2018). Legal questions in automated vehicles. University of Iowa College of Law Colloquium. Iowa City, Iowa.
5. **McGehee, D.V.** (2018). Legal issues in driver distraction – data from the inside out. Iowa Attorney General’s office and Iowa County Attorneys Association. West Des Moines, Iowa
6. **McGehee, D.V.** (2018). Roadway infrastructure for automated driving systems. Greater Iowa Asphalt Conference, Des Moines.
7. **McGehee, D.V.** (2017). Driver performance and understanding assessment in automated driving systems. SIP-ADUS International Conference on Connected and Automated Vehicles. Tokyo, Japan.
8. **McGehee, D.V.** (2016). Engineering consumer understanding of higher levels of automation. SIP-ADUS International Conference on Connected and Automated Vehicles. Tokyo, Japan.
9. **McGehee, D.V.** (2016). The past, present and future of automated driving. College of Engineering Seminar Series, Montana State University.
10. **McGehee, D.V.** (2015). Policy issues in automated driving. American Association of Motor Vehicle Administrators International Conference.
11. **McGehee, D.V.** (2015). Cognitive distraction in naturalistic driving. NHTSA Hearing on Cognitive distraction. Washington, DC.
12. **McGehee, D.V.** (2015). Why teens crash—distraction is key. American Association of Motor Vehicle Administrators International Conference.
13. **McGehee, D.V.** (2015). Automotive Traumatology. University of Iowa Grand Rounds.
14. **McGehee, D.V.** (2014). Understanding teen driving crashes. University of Iowa Hospitals and Clinics Nursing Grand Rounds.
15. **McGehee, D.V.** (2014). Crash injury mechanisms and assessment in the field. Department of Applied Mechanics. Chalmers University of Technology. Gothenburg, Sweden.
16. **McGehee, D.V.** (2014). Coding pre and post impact postural response for injury prediction. National Highway Traffic Safety Administration, Washington DC.
17. **McGehee, D.V.** (2014). Strategic partnerships in automated vehicles: Advantage Iowa. Iowa Economic Development Authority.
18. **McGehee, D.V.** (2014). Driving STEM. Iowa STEM Education Program. Iowa City.
19. **McGehee, D.V.** (2012). Crash causes, distraction and mitigation in young drivers. Hearing on Driver Distraction. National Transportation Safety Board, Washington, DC. Invited by NTSB chairman, Deborah Hersman.



20. **McGehee, D.V.** (2012). From Green to Blue: how teens drive. Iowa Nurses Association Conference.
21. **McGehee, D.V.** (2011). Driver distraction: history and definitions. US DOT National Highway Traffic Administration (NHTSA) Regional Administrators Conference.
22. **McGehee, D.V.** (2011). Beaming into the Trauma Bay: Advanced Video Data Recorders and Crash Injury Assessment. Society of Automotive Engineering Event Data Recorder Symposium. Danville, Virginia.
23. **McGehee, D.V.** (2011). Research tools in driver performance and behavior research. Jinan University School of Medicine. Guangzhou, China.
24. **McGehee, D.V.** (2011). Safety policy and driving safety. China Centers for Disease Control and Prevention. Guangdong Province, Guangzhou, China.
25. **McGehee, D.V.** (2011). Research tools in driver performance and behavior research. Shantou University Medical School. Shantou, China.
26. **McGehee, D.V.** (2010). Shifting driver distraction. Iowa Prosecuting Attorney's Association. Des Moines, Iowa.
27. **McGehee, D.V.** (2010). The history of driver distraction research. Driver Distraction Summit, US DOT. Washington, DC. Invited by US Secretary of Transportation, Raymond J. LaHood.
28. **McGehee, D.V.** (2010). Perception and biodynamics in pre-crash response. Montana State University. Bozeman, Montana.
29. **McGehee, D.V.** (2010). Teen driver research and data in Iowa. Testimony at House and Senate Transportation Committee. Des Moines, Iowa.
30. **McGehee, D.V.** (2010). Driver distraction –data and definitions. Testimony at Senate Transportation Committee. Des Moines, Iowa.
31. **McGehee, D.V.** (2010). Driver distraction –data and definitions. Testimony at House Transportation Committee. Des Moines, Iowa.
32. **McGehee, D.V.** (2010). Using event data recorders for teen driving research. Keynote speaker—Governors Traffic Safety Bureau.
33. **McGehee, D.V.** (2010). Young driver behavior and development. University of Leeds. Yorkshire, England.
34. **McGehee, D.V.** (2009). Advanced data recorders in crash reconstruction. Iowa Medical Examiners Annual Meeting. Des Moines, Iowa.
35. **McGehee, D.V.** (2009). Roadway Design around driver behavior. State Highway Design Conference. Ames, Iowa.
36. **McGehee, D.V.** (2007). 366,000 miles of video feedback. Children's Hospital of Pennsylvania, University of Pennsylvania. Philadelphia, Pennsylvania.
37. **McGehee, D.V.** (2007). The use of naturalistic driving and simulation to examine pre-impact response. CIRP University of Pennsylvania. Philadelphia, Pennsylvania.
38. **McGehee, D.V.** (2007). The use of video interventions in teen driving. Child and Youth Injury Prevention Conference. Des Moines, Iowa.
39. **McGehee, D.V.** (2007). Extending Parental Mentoring Using an Event-Triggered Video Intervention in Rural Teen Drivers. National Safety Council: GDL and Beyond. Research Foundations for Policy and Practice Symposium. Tucson, Arizona.
40. **McGehee, D.V.** (2006). The first generation of avionics innovation: Human factors design metrics and theory. University of Hyderabad, India.
41. **McGehee, D.V.** (2005) Neurophysiologic mechanisms in pre-impact withdrawal and

- bracing. Department of Experimental Psychology, University Oxford. Oxford, England.
42. **McGehee, D.V.** (2005). Bugs on the windshield: how the natural world prepares for danger response. University of Newcastle upon Tyne Department of Neurobiology. Newcastle, England.
  43. **McGehee, D.V.** (2005). Thoughts on a 50-year plan for traffic safety in the developing/less mechanized world. International Programs Symposium, University of Iowa. Iowa City, Iowa.
  44. **McGehee, D.V.** (2004). Keynote Speaker, Paul D. Scholz Symposium on Technology and its Role in Society: Cognitive Design: Developing Technology for the Human Mind. Tau Beta Pi engineering honors society. Perception and Biodynamics in crash-related pre-impact bracing: A systems engineering approach rooted in Nature. University of Iowa.
  45. **McGehee, D.V.** (2003). Integrating crash telematics with crash impact: understanding how bracing influences injury outcomes. University of Virginia. Charlottesville, Virginia.
  46. **McGehee, D.V.** (2002). The technology behind the science of driving. State of Iowa: First conference on older drivers. Des Moines, Iowa.
  47. **McGehee, D.V.** (2002). The biodynamics of pre-impact bracing: toward and active crash test dummy. Department for Transport. London, England.
  48. **McGehee, D.V.** (2002). Towards a 'true' biofidelic test dummy. Transport Research Laboratories, Crash Biomechanics Department. Crowthorne, England.
  49. **McGehee, D.V.**, and D. LeBlanc (2002). Forward Collision Warning Standard: US position. International Standards Organization. London, England.
  50. **McGehee, D.V.** (2002). Pre-impact bracing. Biomechanics Department. Motor Industry Research Association. Nuneaton, England.
  51. **McGehee, D.V.** (2002). The biodynamics of pre-impact bracing: Towards and active crash dummy. National Center for Crash Biomechanics, National Highway Traffic Safety Administration, US DOT. Washington DC.
  52. **McGehee, D.V.** (2001). The design and evaluation of a lane tracking system for snow-plows. University of Leeds, Institute for Transport Studies. Leeds, England.
  53. **McGehee, D.V.**, (1998). Forward Collision Warning Standards for Crash Avoidance. Panel member and presenter on Collision Warning System Driver Interface Issues. Society of Automotive Engineers International Congress. Detroit, Michigan.
  54. **McGehee, D.V.** (1997). From aircraft cockpits to automobiles: How experimental psychology applies to the design of everyday things. Department of Psychology, Central Washington University. Ellensburg, Washington.
  55. **McGehee, D.V.** (1997). Principles of Clinical Research Using Driving Simulation and Instrumented Vehicles. Conference on Clinical Research. University of Iowa College of Medicine. Iowa City, Iowa.
  56. **McGehee, D.V.** (1997). Design Science: Application of the Human Factors Design Process to Civil and Environmental Engineering. Department of Civil and Environmental Engineering, University of Iowa. Iowa City, Iowa.
  57. **McGehee, D.V.** (1997). Scenario Design Workshop: Human Factors Consideration in Driving Simulation Scenario Design. Department of Computer Science, University of Iowa.
  58. **McGehee, D.V.**, M. Rizzo (1997). Driving and car crashes in old age and dementia. CDC Work-in-Progress Symposium, Colorado State University. Ft. Collins, Colorado.
  59. **McGehee, D.V.** (1997). Designing Driving Simulator Scenarios, Protocols and Ruses to Examine True Unalerted Driver Reaction Time. Departments of Computers Science and Applied Psychology, University of Leeds. Leeds, England.

60. **McGehee, D.V.** (1996). Designing Driving Simulation Scenarios: A Human Factors Perspective. Workshop on Scenario and Traffic Generation for Driving Simulation. Sponsored by University of Iowa and Renault Research Center and Ford Research Laboratory. Orlando, Florida.
61. Rizzo, M., **D.V. McGehee** and R. Wallace (1996). Rational Decisions on Providing Drivers Licenses to Medically Impaired Drivers. Interdisciplinary Health Sciences Group Seminar. University of Iowa, Iowa City, Iowa.
62. Rizzo, M., **D.V. McGehee**, and S.R. Reinach, (1996). Driving Performance Measures using Simulation and Instrumented Vehicles. International Symposium on Alzheimer's Disease and Driving. St. Louis, Missouri.
63. **McGehee, D.V.** (1996). Automotive Technology and the Older Driver: Research in Enhancing the Mobility and Safety of Older Drivers. Invited speaker. Gerontology Colloquium. Iowa State University, Ames, Iowa.
64. **McGehee, D.V.** (1996). From driving simulation to instrumented vehicles: applying human factors engineering design to the design of advanced automotive technologies. Graduate Seminar in Mechanical Systems. Dept. of Mechanical Engineering, University of Iowa.
65. Rizzo, M., and **D.V. McGehee** (1995). Driving and car crashes in old age and dementia. CDC Work-in-Progress Symposium, UCLA School of Public Health, Southern California Injury Prevention Research Center. Los Angeles, California.

## Student Thesis and Dissertation Committees

Chair PhD Committee. Noonan, T. Zach. 2017-present. University of Iowa Industrial and Systems Engineering

Chair PhD Committee. Corcoran, Nicole. 2018-present. University of Iowa Industrial and Systems Engineering

Chair MS Committee. Ertle, Ben. 2018. University of Iowa Industrial and Systems Engineering

Chair MS Committee. Kasef, Omeed. 2018. University of Iowa Industrial and Systems Engineering

Chair MS Committee. Mitropoulos-Rundus, Christopher. 2018-present. University of Iowa Industrial and Systems Engineering

Co-Chair PhD Committee. Faust, Kayla. 2016-present. University of Iowa College of Public Health.

Member, MS Committee. Noonan, T. Zach. 2016-2017. University of Iowa Industrial and Systems Engineering

Member, MS Committee. Reichlan, Stephen. 2016-2017. University of Iowa Industrial and Systems Engineering

Member PhD Committee. Missikpode, Celistine. 2015-2017. University of Iowa College of Public Health. Modeling the dynamics of teen risky driving for evaluating prevention strategies.

Member PhD Committee. Wu, Yiqing March 2013 - September 2015. University of Washington Dept of Industrial Engineering. Title Quantifying Drivers Foot Movements and Pedal Misapplication Errors

Member PhD Committee Bose, Dipan January 2005 - June 2007 University of Virginia Department of Mechanical Engineering Numerical Estimation of Occupant State Parameters in a Dynamic Loading Environment

Member, MS Thesis. Savino, Mark January 2007 - March 2009 Tufts University Department Human Factors Engineering Standardized Names and Definitions for Driver Performance Measures

## **Teaching**

IE 5420 Automated Vehicle Systems (spring 2019)

IE 4600 Industrial Engineering Design Project (fall 2018)

IE 5995 Automated Vehicle Systems (fall 2016)

## **Biography**

Dr. Daniel V. McGehee is the director of the National Advanced Driving Simulator Laboratories and associate professor of industrial and systems engineering, emergency medicine, public health and public policy. Previously, he was director of the Human Factors and Vehicle Safety Research Division at the University of Iowa Public Policy Center (PPC). In his capacity as director, he leads a group of faculty, staff, graduate and undergraduate students in an interdisciplinary transportation research program that includes human factors, automotive safety and injury that is funded by government and industry.

His interests are in driver attention and response, crash avoidance, automation and traumatology. He has been a principal or co-principal investigator of over \$39 million in research for the US DOT, NIH and the automotive industry. From bench to policy, his research experience integrates engineering, medicine, public health, and public policy.

He has over a million miles of naturalistic and on-road data human factors and driver behavior testing experience and was the first to examine naturalistic driving among teen drivers. In this same context he has studied thousands of naturalistic driving crashes and is keenly interested in the attention issues up to impact as well as understanding injury mechanisms in car crashes. In a series of studies funded by the NIH, insurance industry, state DOTs, NHTSA, CDC, foundations, and the auto industry.

His current research focus is on automated vehicles. In 2017 he led a UI team along with the Iowa City Area Development Group in getting the roads around Iowa City and the Cedar Rapids corridor designated as National Proving Grounds for Automated Vehicles. The US DOT selected the UI and nine other sites out of over 60 applications. Since 2015 he has served as one of three US representatives to the US-EU-Japan Trilateral Human Factors and Automated Vehicle Working Group.

Active in several professional societies, he has led the Society of Automotive Engineers (SAE) Collision Warning Standards, In-Vehicle Text Information and Driver Performance Metrics efforts for the last 15 years. In 2004 he was elected vice-chairman of the SAE Safety and Human Factors Committee. In 2006 he was selected by the International Standards Organization to lead the first ever Driver Metrics Workshop—which convened world leaders in driver performance assessment to develop standard performance measures for assessing driver-vehicle interfaces. He has led or co-authored SAE standards for forward collision warning, adaptive cruise control, vehicle information text displays, and driver performance operational definitions.

In 2010 he was chosen by the US DOT to serve as a US representative to a new US-European Union working group on driver distraction policy. Also in 2010, he was invited by US DOT Secretary Raymond LaHood to present to the Distracted Driving Summit on the history of driver distraction research. In March, 2012, he was invited by the then Chairman of the National Transportation Safety Board, Deborah Hersman, to testify at a hearing on driver distraction in Washington, DC. In 2015 he presented a NHTSA administrator Mark Rosekind's cognitive distraction hearing.

In 2014 he formed the first international working group on 'The First Crash.' This working group is made up of international leaders from computer, automotive, and insurance industry as well as US and European government officials. The goal of the working group is to develop a consensus on what crash data will be immediately released to the public after the first crash of an autonomous vehicle. He is also the co-founder of the International Driving Assessment Conference—now on its ninth meeting.

He has edited eight proceedings books and has published over 150 scientific articles and book chapters on driver performance and response and automotive safety.

Dr. McGehee earned his PhD in England at the University of Leeds Institute for Transport Studies. His PhD dissertation examined driver perception and biodynamics in pre-crash response and was funded in part by the US Centers for Disease Control and Prevention and by Nissan North America. General Motors funded his MS thesis at the University of Idaho—where he developed the first prototype forward collision warning system for GM.

## **Media**

National Public Radio, New York Times, Wall Street Journal, USA Today, ABC, CBS, NBC, Huffington Post, Des Moines Register; regional television, local and nationally syndicated commercial radio, and print media.