



**D E S I G N  
R E S E A R C H  
E N G I N E E R I N G**

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## **MICHAEL E. KLIMA, P.E.**

### **Professional Specialization**

Automotive engineering; design, assembly, manufacturing and testing of motor vehicle systems. Design analysis and experimental evaluation of the performance of passenger vehicle systems and sub-systems. Failure and safety analysis of mechanical systems. Including automotive sub-systems and components, body structures, body closures, active, passive, and inflatable restraint systems, seating systems, chassis systems and bumper systems. Automotive design processes and packaging of systems, sub-systems, and components. Vehicle crashworthiness evaluation and testing. Accident reconstruction and analysis. Design and testing of vehicular products for U.S. and International regulatory compliance. Automotive accessory design and manufacturing. New products analysis, program planning and control processes.

### **Professional Background**

B.S.E. (Mechanical Engineering), Western Michigan University

M.B.A. (Management), University of Phoenix

Additional Courses and Seminars (Accident Reconstruction, Vehicle Dynamics Biomechanics and others),

Northwestern University Traffic Institute; Society of Automotive Engineers; University of Michigan

Transportation Research Institute; Association for the Advancement of Automotive Medicine

### **Principal Engineer,**

Design Research Engineering

### **Managing Engineer,**

Failure Analysis Associates, Inc.

### **Manager, Design Analysis,**

Toyota Motor Sales, U.S.A., Inc.

### **Senior Technical Analysis Engineer,**

Toyota Motor Sales, U.S.A., Inc.

### **Product Engineer, Technical Assurance Department,**

Toyota Motor Sales, U.S.A., Inc.

### **Vehicle Design Engineer, Taurus/Large Car Design Department,**

Ford Motor Company

### **Vehicle Design Engineer, Mid-sized Vehicle Design Department,**

Ford Motor Company

### **Vehicle Design Engineer, Thunderbird Vehicle Design Department,**

Ford Motor Company

### **Quality Engineer, GMC Truck and Coach Division,**

General Motor Corporation

Member, Society of Automotive Engineers (SAE)

Member of the SAE Impact & Rollover Test Standards Committee

Past Member of the SAE Inflatable Restraints Standards Committee

Past Member of the SAE Restraint Systems Standards Committee

Member, Michigan Society of Professional Engineers

Member, National Society of Professional Engineers

Member, Association for the Advancement of Automotive Medicine (AAAM)

Member, Michigan Association of Traffic Accident Investigators

## **MICHAEL E. KLIMA, P.E.**

### **Professional Licenses**

Registered Professional Mechanical Engineer, California #M 025461

Registered Professional Engineer, Michigan #6201039974

### **Publications**

"Evaluation of Seat Belt Assembly Physical Evidence in Properly Functioning and Intentionally Disabled Retractor Demonstrations," SAE 2009-01-1245 (with D. Toomey and E. Cooper).

"Evaluation of Door Latch Response to Vertical Loading Conditions," SAE 2009-01-0379 (with K. Petroskey and E. Paddock).

"Safety Restraint System Physical Evidence and Biomechanical Injury Potential Due to Belt Entanglement," SAE 2006-01-1670 (with D. Toomey and C. Van Ee).

"Seat Belt Retractor Performance Evaluation in Rollover Crashes," SAE 2005 Transactions: Journal of Passenger Cars: Mechanical Systems #2005-01-1702 (with D. Toomey and M. Weber).

"Seat Belt Buckle Performance in High Energy Wheel-to-Ground Impacts," SAE 2005 Transactions: Journal of Passenger Cars: Mechanical Systems #2005-01-1709 (with D. Toomey and M. Weber).

Lead author of SAE J2481 Dynamic Simulation Sled Testing (3/99)

### **Guest Lecturer**

"Evaluation of Seat Belt Assembly Physical Evidence in Properly Functioning and Intentionally Disabled Retractor Demonstrations," Society of Automotive Engineers, 2009 World Congress, Detroit, MI, April 2009.

"Safety Restraint System Physical Evidence and Biomechanical Injury Potential Due to Belt Entanglement," Society of Automotive Engineers, 2006 World Congress, Detroit, MI, April 2006

"Seat Belt Retractor Performance Evaluation in Rollover Crashes," Society of Automotive Engineers, 2005 World Congress, Detroit, MI, April 2005.

Accident Reconstruction and Restraint System Analysis, University of Michigan, Ann Arbor, MI, April 2000.

Physical Evidence Relative to Active and Passive Restraint System Use, Including Inflatable Restraints, Michigan Association of Traffic Accident Investigators, Traverse City, MI, October 1998.