

**DRIVERS AND DRIVER ASSISTANCE SYSTEMS:  
HOW WELL DO THEY MATCH?**

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**Toyota Distinguished Keynote Lecture**

New technology is appearing in vehicles that increasingly allows them to “know” where they are, their relationships to other vehicles on the road, and whether a crash is imminent. At the same time, and more quickly, drivers are becoming more connected to the world outside their cars through similar advances in electronic technology. The first trend promises to help drivers prevent crashes while the second raises fears of increasingly chaotic driving as drivers’ minds are elsewhere than on the driving task. Whether the promise of crash avoidance or the fear of driving chaos is realized depends on how drivers actually drive and whether the assumptions made about how they drive are correct. In fact, the US has not seen increases in crash risk as drivers’ use of electronics has increased nor are all crash avoidance systems having the expected benefits. In addition to exploring these data, the presentation will address some of the assumptions made about driving (e.g., that driving is difficult, that it requires fully conscious attention, that drivers will respond to information about their vehicles, and others) and whether those assumptions appear to fit the data on crash avoidance and distracted driving. It also will discuss “old” technology (e.g., roundabout intersections and automated enforcement) that may complement vehicle electronics in bringing drivers’ wandering attentions back to the road.

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*Trained initially as a psychologist, Dr. Lund has been involved in health-related research since 1974. He joined IIHS in 1981 as a behavioral scientist, becoming senior vice president for research in 1993, chief operating officer for IIHS and HLDI in 2001 and president in 2006.*

*Dr. Lund is the author of numerous scientific papers on such topics as young drivers, alcohol and drug use among drivers, occupant restraints and the effect of vehicle design on driver behavior and crashworthiness. He has served on many government and nongovernmental committees addressing highway safety issues.*

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