

# U-M Dearborn Hosts Connected Vehicle Conference

by Gerald Scott  
Editor  
U.S. Auto Scene

"I want a car so that when I walk out the door, I whistle, and the car comes running to me just like my dog does."

Or so said one participant in the WAVE Seminar, a connected vehicle conference, hosted by U-M Dearborn's Institute for Advanced Vehicle Systems last week at the UDM campus in Dearborn.

Although modern vehicles interacting with other vehicles (V2V) and vehicle to infrastructure (V2I) is not quite as far along as that one participant's Pavlovian wish, nonetheless great progress is being made in developing a smart car-and-road system.

That was the consensus of a wide group of top-shelf auto, transportation and civil engineers who are all collectively working on a smart road grid system to help alleviate road congestion, save on gas and improve vehicle safety, all at the same time.

Most notably, Steve Cook of MDOT and Taso Zografos of U.S. DOT separately described a variety of technology test beds they were working on in Michigan, various successful road tests of coordinating elementary signaling systems such that this type of testing will soon be copied in New York, California and Florida as well.

The speakers' lectures were held in the BorgWarner auditorium, where a wide variety

of experts weighed in on how autonomous vehicles, smart roadways and various safety and road signalling system are finally beginning to mesh into a more coherent whole.

U-M Dearborn's Institute for Advanced Vehicle Systems was a natural host for this type of event as well.

The IAVS accelerates applied research in the areas of product development and manufacturing.

IAVS focuses on systems development and systems integration related to the design, development and manufacturing of complex vehicles.

The Institute regularly conducts research projects related to body and chassis products, manufacturing techniques, and integration with powerplant and driveline systems.

Other notable speakers at the WAVE seminar included former GM Vice President of R&D, Larry Burns, who is now

a professor at the University of Michigan.

And Walter Griffor, a Walter Chrysler Technical Fellow who works at the automaker's Technical Center in Auburn Hills, delivered a speech entitled "Chrysler's New Future."

GM's EnV future scooter car was the most notable future product on display at the show. TARDEC robotics manager Dr. Jim Overholt got an inside view of the vehicle while his colleague, Dave Thomas, associate director of Intelligent Systems at TARDEC, discussed "The New Wave of Military Vehicles."

Much of the real-world road testing being done by U.S. DOT and MDOT in southeast Michigan is being done in the Novi area, as well as along Telegraph Road across Oakland County.

WAVE Seminar visitors were offered on-site tours of what these road experiments looked like in person.



PHOTO: GERALD SCOTT

Dr. Jim Overholt, right, robotics manager at TARDEC, checks out the interior of GM's EnV future scooter car at the U-M Dearborn's connected vehicle conference last week.

# Ford's Visual Laboratory Sheds Light on Glare

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that has responsibility for the look and layout of switches, clusters, climate controls, navigation systems, radios and all entertainment systems.

To conduct the evaluations, the car or component is placed in the middle of a gigantic circular space. Flip a switch and four huge 1,500-watt lights mounted onto a steel arm power up. One end of the arm connects to the ceiling. The other end sits on wheels on the floor.

By physically pushing the arm to specific points around the circle's edge and adjusting the spotlights and floodlights in the ceiling, VPEL can simulate light conditions at every time of day from sunrise to sunset. Additional adjustments are made to simulate and study the effects of weather conditions.

The lab has also helped Ford engineers develop the latest LED backlighting and general illumination of the company's

vehicle interiors, including placing illumination in the right locations and using the appropriate amount of brightness and color.

Prior to the development of the VPEL, the lighting team did the bulk of its testing by taking cars out on the road under different sky conditions to try and evaluate interior components and identify potential problems like washouts, but it was a time-consuming task.

According to Dassanayake, the VPEL has afforded designers and technicians the unique opportunity to test components faster and at a much earlier stage of development.

"We think the work we do in the lighting lab is evident in the high consumer quality rankings of our vehicles," he explained.

"In this era of global product development, we need to have all of the 'what if' studies done up front and make sure they're conducive to what's right in the field for the customer."

# J.D. Power Lauds Lincoln Brand for 'Durability'

Ford Motor Co. just received reinforcement for the idea that it truly is building quality and long-term reliability into its various cars and trucks.

That's because Ford's Lincoln brand received the highest score for long-term durability among all vehicle brands in the annual J.D. Power and Associates' 2011 Vehicle Dependability Study (VDS).

The Lincoln MKZ is the second-highest performing model in long-term durability in the entire study.

Ford Motor Company vehicles received awards in four segments:

- Lincoln MKZ, Entry Premium Car
- Ford Fusion, Midsize Car
- Ford Mustang, Midsize Sporty
- Lincoln Navigator, Large Premium Crossover/SUV

In total, Ford had nine vehicles ranking in the top three of their respective segments. They include Ford Edge, Ford Explorer Sport Trac, Ford Taurus, Ford F-150 and Ford Ranger.

The study asks owners about

problems they have experienced in the past 12 months with their three-year-old vehicles, (i.e., for the 2011 study, 2008 model-year cars and trucks were surveyed). Survey respondents were asked to indicate any problems they experienced with their vehicle in the past 12 months, choosing from a list of more than 200 issues in eight diverse categories.

"This is another great testament to Lincoln," said Scott Tobin, director of Lincoln Product Development.

"Long-term durability is the perfect foundation upon which to build the resurgence of the Lincoln brand. We have the dependability that's important to consumers, and now we have great new products like the innovative new Lincoln MKX and the fuel-efficient MKZ Hybrid."

Bennie Fowler, Ford Group Vice President, Global Quality and New Model Launches, said the results demonstrate the company's dedication to continually raising the bar on the quality for all Ford customers.

"This study from J.D. Power

is more good news for our customers. It affirms our quality operating system is one of the best in the world," Fowler said.

"Our Lincoln products and our Ford products aren't just the best at low time in service as we've seen year over year, but at higher times in service as well."

The study also shows a strong link between reliability and purchase. Nearly two-thirds (63 percent) of new-vehicle buyers say reliability/durability is one of the most important factors in choosing a new vehicle.

Additionally, the study found

that fuel economy is among the top 10 purchase considerations. Ford offers at least 12 vehicles that lead their sales segments in fuel economy – including four vehicles with EPA-certified 40 mpg or higher fuel economy ratings – a claim no other full-line automaker can match.

"The results of this study are extremely gratifying," said Fowler. "We've been working hard to develop the products and processes that allow us to be best-in-class."

Following the demise last year of Mercury, Ford and Lincoln remain as Ford brands.

# Free Concert at Henry Ford Lib.

The public is invited to attend a free music concert on Sunday, March 27 at the Henry Ford Centennial Library in Dearborn featuring the Missing Links.

The library's Spring Fling music concert is scheduled to run from 3-5 p.m. and will feature the Missing Links, which is a popular 15-piece swing music orchestra specializing

in the Big Band-style pop hits from the 1930s and 1940s.

The show will be held in the Centennial Library auditorium. Seating is free and first come, first served.

The Friends of the Library are sponsoring the show.

The Henry Ford Centennial Library is located at 16301 Michigan Ave. in Dearborn. Call (313) 943-2330.

# Michigan Assembly Plant Is Ford's Most Versatile

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Michigan Assembly is the first U.S. plant to commercially use a three-wet paint application that will save about \$3 million in production in natural gas and electricity – without compromising Ford's paint quality or durability.

"In most other automotive plants, we apply a layer of paint called the primer coat and we bake the unit, and then we put on the base coat and the clear coat, and we bake it again," said John Nowak, environmental engineer.

"The three-wet process allows us to put on primer, base and clear, and bake it only once. We save all the electricity from the blowers that run the booths and the ovens,

plus all the natural gas from heating the air and the ovens. Ford is leading the way on this greener, cleaner paint process."

Because of the differences in technique – including robotic processing, elimination of equipment and associated pollutants, and increased line speed – the three-wet paint process produces 6,000 metric tons fewer CO2 emissions per year compared to waterborne systems and 8,000 metric tons fewer CO2 emissions per year compared to conventional high-solvent-borne systems.

There also is a Volatile Organic Compounds (VOC) emissions savings of 5 percent related to processing.

MAP enjoyed hosting a big turnout of community leaders at last week's function.

# CAR Conference Planned

ANN ARBOR – The Center for Automotive Research (CAR) announces the addition of speakers to the agenda of the March 29 - 30 "Roads to Renewal II" conference, an event focused on companies and communities on the horizon amidst the automotive industry's recent resurgence.

Michael Finey, the new head of the Michigan Economic Development Corp. (MEDC), joins the March 30 panel entitled "Strategies to Spur Job Retention and Growth."

Other panel members include Curt Magleby, Director of State & Local Government Relations at Ford Motor Co. and Bill Testa, Vice President and Director of Regional Research in the Economic Research Dept. of the Federal Reserve Bank of Chicago.

"Partnering for Prosperity: Communities & Companies in the Resurging Automotive Economy" will take place March 29-30 at the Hyatt Regency in Dearborn.

The big event will explore the economic implications facing automotive industry stakeholders, policy issues, Midwestern states' initiatives, site selection and the repositioning of former manufactur-

ing sites, growing and sustaining local businesses, and the importance of the educational infrastructure.

"It's important to consider strategies that align both companies and communities' needs in the future," said Sean McAlinden, executive vice president of research and chief economist at Ann Arbor-based CAR.

"Communities must understand the big picture of the changing structure of automotive competition in North America and the future role of government in determining the market and shaping the pattern and content of production."

McAlinden, along with Dennis DesRosiers, a leading Canadian auto analyst, will launch the event by focusing on the economic "Big Picture" of the industry and its transformation, on March 29.

The conference is sponsored by the U.S. Dept. of Commerce Economic Development Administration (EDA) and offered in collaboration with the Original Equipment Suppliers Assn. (OESA), the Detroit Regional Chamber and others.

It is offered through CAR's Automotive Communities Partnership.

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