# Tech Center News

WARREN, MICHIGAN - EST. 1976

**VOL. 37 NO. 8** 

"Covers the Hub of Macomb County's Auto Industry"

**NOVEMBER 19, 2012** 

### **GM Foundation's New Float Ready for Thanksgiving**

tion has unveiled a new float it's sponsoring during America's Thanksgiving Parade on Nov. 22.

The float's theme is "Education Fuels Tomorrow's Innovators."

It showcases the Foundation's commitment to investing in America's youth - which GM calls the next generation of inno-

"Our new float is a celebration of the GM Foundation's many educational partnerships and our

The General Motors Founda- commitment to encourage more students to pursue studies of science, technology, engineering and math (STEM) - areas critical to the future success of our nation," said Selim Bingol, GM vice president, Global Communications and Public Policy and new chairman of the GM Foundation.

> The float is being designed and built by The Parade Company. It celebrates education, specifical-

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GM Foundation-sponsored float for Detroit's Thanksgiving Day Parade



At the GM Design Center in Warren, Disney Imagineers and Chevrolet designers work on Epcot ride.

### Chevy, Disney Designers Work on Epcot Ride

by Irena Granaas

Thanks to a collaborative effort between Chevrolet and Disney, guests at Walt Disney World in Florida can experience the thrill and excitement of designing their own automobile.

Chevrolet engineers and Walt Disney Imagineers have teamed up to revamp and enhance the Chevrolet Test Track ride at EP-COT, which has been closed since April while the changes were implemented.

The result is a highly interactive, virtual experience in the world of automotive design for resort guests.

Design talent from Chevrolet and Disney began their collaborative effort 18 months ago, com-

bining the talents of people with a variety of relevant skills including architecture, animation, industrial and automotive design.

Teams went to work on the ambitious project both at GM's Design Studios in Warren, and at Test Track Epcot in Lake Buena Vista, Fla. While allowing for the

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#### Car-Buying Public Needs to Understand How EVs Work - SAE's Galven

by Jim Stickford

One of the problems with selling battery-operated vehicles to the public is that people don't understand or trust the technology.

That's where Robert Galven and the Society of Automotive Engineers (SAE) International Battery Standards Committee come in.

Galyen, CTO of NingDe Contemporary Amperex Technology Limited, was a speaker at The Battery Show held in Novi Nov. 13-15.

The company is based in China, but Galyen has a long history working in the Detroit-based auto industry. He worked for GM between 1977 and 1998, and was an assistant chief engineer for acid battery business from 1998 through 2001.

He is also chairman of the SAE's Battery Standards Committee. which is in the process of developing SAE standards for all aspects of battery systems, from construction to transport to storage to how they interact with different OEMs' powertrain systems.

"One of the components to Electrical Vehicle (EV) technology catching on is public understanding of how it works," Galyen said.

So it becomes very important for groups like the SAE to communicate with the public through every media - print, TV, the Internet, trade publications."

Battery technology is complex. Delphi Automotive in its lead It's chemical energy and can't be turned off at the flick of a switch. Because most people don't understand it, they are afraid of the technology.

When the federal government's NHTSA released information about a Volt power pack catching fire last year, it caused quite a stir with the

But, Galyen said, the NHTSA violated its own protocols and the fact that the battery pack caught fire two weeks after the staged crash got lost in the news shuffle.

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Galyen talks EVs at the recent Battery Show in Novi.

## Plug-ins Will Play a Major Role for GM - Mary Barra

General Motors says it will faster than we thought possible have up to 500,000 vehicles on the road with some form of electrification by 2017 with a focus on plug-in technology, the company's top product development.

"The plug-in offers a unique opportunity to change the way people commute," Mary Barra, senior vice president of Global Product Development told media attending the GM Electrification Experience in San Francisco.

'Plug-based solutions will play a significant role in our technology portfolio going forward."

The plug-in Chevrolet Volt extended-range electric vehicle, introduced in 2010, has become more than a statement for GM in the electric vehicle space, Barra said by satellite from Detroit.

'What started out as a technology proof point . . . has turned into a real-world starting point to push EV technology further and

five years ago," she said.

"The unique propulsion technology pioneered in the Volt the same technology that will be featured in the Cadillac ELR - will be a core piece of our electrification strategy going forward."

Learning from the Volt is being liberally applied to the Chevrolet Spark EV, which will go on sale next year in certain U.S. markets and South Korea, with other markets to be announced soon, Barra said.

"We'll meet requirements set by certain regulatory agencies, but we're not building the Spark EV to check a regulatory box," Barra said.

GM is on track to sell more than 50,000 vehicles this year with electrification - between the Volt and eAssist light electrification technology on the LaCrosse, Regal and Malibu.

'10 Most Wanted' List of Safety Improvements By JOAN LOWY Associated Press

WASHINGTON (AP) - The U.S. government should require automakers to make the latest collision prevention technologies standard equipment on all new cars and trucks, a move that could reduce fatal highway accidents by

more than half, federal accident in-

vestigators said last week. The technologies include lane departure warning, forward collision warning, adaptive cruise control, automatic braking and electronic stability control. They are available on many cars and trucks already, although some are limited primarily to higher-

end models. The National Transportation Safety Board said they should be required on all vehicles, despite the auto industry's concern that doing so would add thousands of dollars to the cost of a new car.

Such technologies can prevent accidents that involve running off the road, rear-ending another vehicle and lane-change maneuvers, the board said. Those types another lane without signaling. of accidents account for 60 per- Adaptive cruise control uses sencent of fatal highway accidents.

Board Adds Collision Prevention Features to

There were more than 32,000 traffic deaths in the U.S. last year.

The Obama administration "should establish performance standards where still needed and mandate that these technologies be included as standard equipment in cars and commercial vehicles alike," the board said in a statement.

"With such promising potential to improve highway safety, this technology should be robustly deployed throughout the passenger and commercial fleets.'

Electronic stability control, which automatically applies brakes to individual wheels to restore control, is already required for new passenger vehicles weighing less than 10,000 pounds. But large pickup trucks, 15-passenger vans and commercial trucks that exceed that weight aren't included in the requirement.

Lane departure warnings alert drivers when a car wanders into

sors to read traffic conditions and modulate the throttle and brakes to keep the car a safe distance from the vehicle in front of it.

Forward collision warning systems monitor the roadway in front of the car and warn the driver of an impending collision. Some forward-collision systems will apply the brakes if the driver doesn't take action to avoid an imminent collision.

Similarly, automatic braking applies brakes to avoid an impending collision with another vehicle, person or obstacle.

The board's recommendation also includes tire-pressure monitoring systems and speed-limiting technology for commercial trucks.

The board included the recommendation as part of its annual list of "10 most wanted" safety improvements. Some of the technologies were on the list in 2008, and the board previously has

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