



Students and instructors surround the GM/Carnegie Mellon Cadillac SRX experimental vehicle.

GM, Carnegie Mellon Working to Further Innovative Tech

General Motors renewed its five-year agreement with research partner Carnegie Mellon University in Pittsburgh to work on driverless vehicles.

The two will continue developing technologies that could allow future production vehicles to drive autonomously.

The collaborative work builds on GM and Carnegie Mellon's development of Boss, an autonomous Chevrolet Tahoe named for GM R&D founder Charles F. "Boss" Kettering.

In 2007, the Boss navigated 60 miles of mixed traffic, intersections and stop signs in less than six hours to win the Defense Advanced Research Projects Agency, or DARPA, Urban Challenge competition.

Following that success, the partners established the GM-CMU Autonomous Driving Collaborative Research Lab in 2008 to focus on key automated vehicle technologies, including sensor fusion and system controls.

The lab's multiple projects are aligned with GM's next-generation advanced crash-avoidance technologies.

"We have a rewarding, tight-knit relationship with the researchers at GM," said Raj Rajkumar, George Westinghouse Pro-

fessor of Electrical and Computer Engineering and Robotics at CMU and co-director of the collaborative research lab.

"Together, we are taking automated driving capabilities beyond those of Boss, with practical considerations that only an automotive OEM like GM truly understands and can provide."

For the past two years, Rajkumar and his team have been designing, developing and testing a variety of advanced crash-avoidance technologies on a Cadillac SRX luxury crossover test vehicle.

GM researchers conduct technology reviews and provide directional guidance and regular feedback to the CMU team, which operates in a repurposed railroad service station known as Robot City Roundhouse.

"The work we're doing with Carnegie Mellon is speeding the development of technologies designed to enhance the driving experience," said John Capp, director, GM R&D's Electric and Control Systems Research Lab.

"This collaboration is just one example of how GM is leveraging strong partnerships to bring innovative technology to market that will benefit our customers around the globe."

GM challenged its CMU research partners to integrate automated technologies that would meet customer expectations for exterior styling and interior packaging, said GM spokesman Dan Flores.

Seamless integration of advanced sensors will be a key differentiator between current test vehicles and production-viable automated vehicles.

Unlike Boss, which was easily identifiable as a test vehicle by the array of bulky sensor equipment attached to its exterior, the SRX test vehicle looks similar to a production model, because sensors are integrated into the vehicle body.

Automated driving requires the fusion of input from advanced sensors to provide 360 degrees of crash risk awareness, Flores said. Advanced sensor technologies work together to detect objects, pedestrians and bicyclists in the roadway, determine the best following distance behind other vehicles, handle stop-and-go with the flow of traffic, heed traffic signals and navigate a pre-determined route.

Some of the building block technologies for automated vehicles, such as full-speed range adaptive cruise control and auto-

matic braking, are available on Cadillac's latest models, the 2014 Cadillac CTS, XTS and ATS luxury sedans, as part of the available Driver Assist Package.

"Automated vehicle technologies have the potential to improve driver performance, enjoyment and safety by easing workload when traffic and road conditions allow," Capp said.

Prolim, LTU Team To Establish New PLM Digital Lab

Prolim Corporation, a PLM specialty company, has entered into a strategic corporate partnership with Lawrence Technological University (LTU) in the implementation and support of a new PLM Digital Manufacturing Innovation Lab.

LTU will implement the lab in 2014 with its recent \$40 million in-kind grant from Siemens PLM.

Prolim, in conjunction with LTU, will provide trainees and students access to the same PLM technologies that corporations around the world rely on each day to develop innovative merchandise and products.

The corporations include automotive, aerospace, machinery, construction and many other industries that value and utilize digital manufacturing in their product development process. This allows graduates with such focused training to gain the technical expertise needed in a highly competitive job market.

Prolim, a Farmington Hills company, is implementing the new lab by providing the following:

- Establish, maintain and support a PLM Innovation Lab on campus that will one day be a role model for the nation;
- Establish PLM best practices that can solve real-world business problems;
- Publish case studies on the successes of the LTU PLM program;
- Assist in defining, developing, and delivering PLM certificate courses.

GRIMES BARBER SHOP

MON. - FRI. OPEN 7:00 A.M. - 6:00 P.M.
SATURDAY OPEN 7:00 A.M. - 5:00 P.M.

\$8.00

5966 CHICAGO RD. (AT MOUND) • 586-979-4130

Chicago Rd
Mound Rd
13 Mile Road
Van Dyke Ave.
In Historic Warren Village.

HIBACHI BUFFET

CALL FOR RESERVATIONS
CATERING • CARRY-OUT

We Serve Asian & American Cuisine

STEAK • PRIME RIB
SEAFOOD • CRAB LEGS
HIBACHI GRILL
FULL SUSHI BAR

★★★★
Try Our New Buffet RATED 4 STARS!

33431 Van Dyke at 14 Mile
(Same Shopping Center as Walmart)
586-264-7000
Fax: 586-264-8080

LUNCH BUFFET
Mon-Fri • 11am-3:30pm **\$7.99**

DINNER BUFFET
Mon-Thurs • 4-9:30pm **\$13.99**
Fri, Sat & Sun • 4-10pm **\$14.99**

BRUNCH BUFFET
Sat & Sun • 11am-3:30pm **\$9.99**
Price Excludes Beverages

15% Off
FOOD BILL
Up to 12 People

Not valid Saturday. One offer per table with paper.
Not valid holidays. Not valid with any other offer or discount.
Valid at HIBACHI BUFFET.

STEAK & BACON MELT

MELTY
MOUTHWATERING
GOODNESS

TRY OUR STEAK MELTS!

SUBWAY
eat fresh.

ROSEVILLE
Subway/Walmart
28804 Gratiot
12 & Gratiot
586-773-1682

WARREN
31690 Mound Rd
13 & Mound
586-939-1000
26627 Hoover Rd
11 & Hoover
586-754-8205
30820 Hoover Rd
13 & Hoover
586-573-7829
29144 Ryan Rd
12 & Ryan
586-573-8000
28950 Van Dyke Ave
12 & Van Dyke
586-558-3882

Drive Thru Service:
NOW OPEN 24 HOURS
32620 Van Dyke Ave
South of 14 Mile
586-795-0000
Subway/Meijer
29505 Mound Road
12 Mile & Mound
586-558-0100

TROY
Subway/Oakland Mall
498 14 Mile Rd
248-307-1271
1939 W. Maple Rd
West of Crooks
248-435-2846
Subway/Walmart
2001 W. Maple Rd
West of Crooks
248-435-2431

STERLING HGTS.
37876 Van Dyke
at 16 1/2 Mile
586-795-8368
Subway/Walmart
NOW OPEN 24 HOURS
33201 Van Dyke
14 & Van Dyke
586-274-4319
Subway/Meijer
36600 Van Dyke Ave
586-795-1606
38357 Dodge Park
at Plumbrook
586-264-5300
40058 Van Dyke
18 Mile & Van Dyke
586-939-4500

NOW OPEN 24 HOURS
7960 Metro Parkway
Van Dyke & Metro Pkwy
586-268-0800
SubwayChrysler
38111 Van Dyke
586-268-6900
SubwayChrysler
35777 Van Dyke
586-795-0205

SHELBY
8178 23 Mile Rd
23 & Van Dyke
586-739-4100
Subway/Walmart
NOW OPEN 24 HOURS
51450 Shelby Pkwy
23 & Van Dyke X-Way
586-254-8140

WASHINGTON TWP.
NOW OPEN • DRIVE THRU
13160 32 Mile Road
32 & Van Dyke X-Way
586-281-6359

WARREN URGENT CARE

8am-10pm • 7 Days a week • 365 Days a Year

"Bringing Quality Urgent Care To Your Neighborhood"

"We Care"

URGENT CARE FOR ACCIDENTS AND INJURY
ADULT & PEDIATRIC ILLNESS
Digital X-Rays, EKG and Lab Work, On-Site Lab Service, Strep, Mono, Pregnancy & Urine Testing, Vaccinations, Sports & School Physicals, Occupational Medicine, Work-Related Injuries, Pre-Hire Physicals (BAT & Urine Screening)

SPECIAL ON SPORTS PHYSICAL \$25.00 State-of-the-Art Facility

586-276-8200
31700 Van Dyke • Warren, MI 48093

On Van Dyke Rd., between 13 & 14 Mile in
St. John's Windemere Park

OTHER CONVENIENT LOCATIONS:

Woodland Urgent Care 22341 W. 8 Mile Road Detroit 313-387-8700

N. East Macomb Urgent Care 43990 Garfield, Suite 121 Clinton Township 586-868-2600

FLU SHOTS

ATTENTION
Chrysler, GM, Ford Employees, we're within 2 miles of your plants

HAP & BCN
NO Referrals Needed!
www.warrenurgentcare.com