

April Meeting Announcement

Program : GM Precept Hybrid Electric Car

Speaker: Dr. Ron York

Location : Goeglein's on Maysville Road, Fort Wayne

Date/time: April 11, 2001
5:30 pm Social
6:00 pm Dinner
7:00 pm Program

Cost : \$15.00 SAE Members \$10.00 Retirees
\$18.00 Non-member/or at the door
\$7.00 Student SAE members
\$8.00 Student non-members

Menu : Tossed Salad, Char-Broiled Filet of Beef, Baked Potato,
Snow Peas & Carrots, French Bread, Fruit Pie

Please make reservations and dinner payments with your company rep or Ken Knipstein at 219-426-8081 x206 by April 9th.

The April Fort Wayne Section SAE meeting features a presentation on GM's Precept Hybrid Electric car given by Dr. Ron York. The GM Precept is an advanced class, fully functional, diesel/electric hybrid, five passenger family sedan. It traces its roots to the Partnership for a New Generation of Vehicles (PNGV) program, a joint effort between the U.S. Government and auto industry whose goal is a vehicle with lower emissions and up to three times the fuel efficiency of conventional cars without compromising safety, performance, affordability, or utility.

The GM Precept is capable of getting 80 miles to the gallon. The numbers on Precept add up to an average city/highway figure of 90.4 mpg on diesel fuel in actual testing. The 80 mpg target was a goal set for the PNGV program. The goal was stated in gasoline-equivalent gallons. Precept's 90.4 mpg on diesel fuel, when converted to gasoline-equivalent gallons, is 79.6 (90.9 highway and 72.2 city). The Precept

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GM Precept con't

has a drag coefficient of 1.63. The energy efficient design of the chassis includes metal matrix composite mounting brackets and low rolling resistance tires which account for more than 15% of the Precept's fuel economy. The Precept can go from zero to sixty in 11.6 seconds.

The GM Precept has four-wheel drive and a dual axle set-up which utilizes a 47 hp three-phase electric motor that powers the front wheels, and a 1.3 liter, 3-cylinder, diesel engine driving the rear wheels. The electric motor run off either a nickel metal hydride battery or a lithium polymer battery, assisting the 54-horsepower diesel during acceleration, and captures energy during braking. The turbo-charged diesel engine was developed by Isuzu Motor Co. Ltd. The GM Precept has a three-camera rear vision system integrated into a central instrument panel display. This eliminates the need for rearview mirrors. Also included is an intelligent vehicle climate control system which efficiently utilizes the available power sources. This vehicle is claimed to have the world's most efficient lighting system which aids in energy management.



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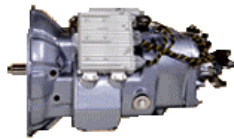
A four-wheel brake-by-wire system that incorporates regenerative braking provides the stopping power for the Precept. Regenerative braking accounts for 13 mpg of fuel savings. The front axle electric motor pushes the car backwards when reverse is summoned. Consequently, reverse gearing was left out of the transmission that's behind the diesel motor. The Precept uses 47 microprocessors to manage every last calorie of energy used by any of the car's systems.

GM claims the Precept hybrid demonstrates its commitment to the PNGV program and demonstrates the technical feasibility of achieving three times fuel economy with a five-passenger family sedan. The company predicts that it will have production prototypes ready in 2004, with actual cars for sale to follow some time later. The long-term vision of PNGV is to produce a viable fuel cell vehicle.



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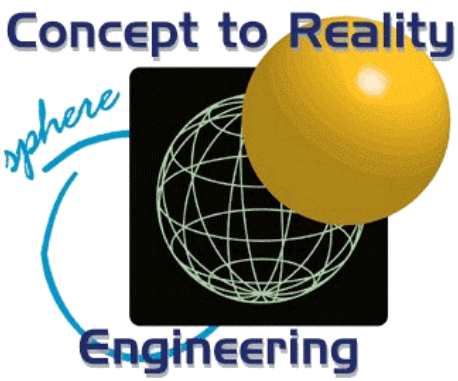
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Awards

The Fort Wayne Section was well represented at the Awards Banquet held on March 6th as part of the 2001 Congress. The section received a Gold Award, the top honor for sections based on the Year End Summary report and preliminary planning reports submitted by the section.

Membership recruitment awards were presented to Gene Menne and Dan Grohnke. Both achieved advanced levels in SAE's Ambassador Club for continuous sponsoring of new members. Gene also received the prestigious honor of being inducted into the Century Club for sponsoring 100 new members over his career as an SAE member.

John Risley received an SAE Technical Standards Board Certificate of Appreciation for his outstanding contribution and commitment to the work of the SAE Truck & Bus Brake Committee, Brake Supply & Control Subcommittee, & Brake Systems Subcommittee. John retired from the International Truck & Engine Corporation.

Lunch and Truck Presentation Scheduled for April 27th

A luncheon has been scheduled for April 27th at International's Truck Development Center in Fort Wayne. Boxed lunches will be provided, for a fee. Following lunch, Program Manager Rick Malecki, will be giving a presentation on International's new High Performance medium duty trucks. The new line of trucks was launched in March. The trucks feature improved ride and handling, improved visibility, multiplexed wiring, inline six cylinder turbocharged diesel engines, manual and automatic transmissions, and new cab, hood, and interior designs. The lunch and presentation will be held in the Navigator room at International's technical center. Enter the building at the main entrance off Meyer Road. Signs will direct you to the Navigator room. Make reservations and dinner payments to your Company Representative (or Ken Knipstein at 219-426-8081 ext 206) if you plan to attend. Other details for the luncheon include :

Times	Friday April 27th 11:00 am Social time 11:30 Lunch 11:45 Presentation 12:30 pm Wrap-up
Costs	\$6 SAE Members w/ Advance Purchase \$8 – Non-members \$8 – At the door No cost for presentation only
Location	International Truck Development and Technology Center 2911 Meyer Road Fort Wayne

We hope you can attend this type of event, one we haven't had in recent memory. All are welcome. It will also provide you with an opportunity to see International's new High Performance trucks.



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Company Representatives

Please make meeting reservations and dinner payments with your company representative :

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Dan Grohnke	Navistar Tech. & Egr. Center
Steve Houser	KUS Product Engineering
Doug Motts	Philips Technology
Krista Thomas	Busak + Shamban
John Shung	IPFW
Ramiro Bravo	Tri-State University
Ken Knipstein	Retirees/others

219-426-8081 x206

2000 - 2001 Program Schedule

April 11th	GM Precept
April 27th	International Truck Luncheon
May 9th	Advance Mixer Tour
June 9th	Golf at Cedar Creek

Mailing List Updates

If your address changes, or you wish to be added to the Fort Wayne Section's mailing list, or you know a new member who wishes to be added to the mailing list, contact John Hess at 219-423-4043 (john.hess@dana.com).



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