

UVic EcoCAR Team Wins Several Top Awards among 17 North American University Teams at the First-year Competition

The EcoCAR: The NeXt Challenge is a three-year competition in which selected university teams from the US and Canada design and integrate leading-edge technology into a 2009 Saturn VUE, to reduce the environmental impact of the vehicle while maintaining utility and user appeal.

During the **First-Year Competition in Toronto in June 2009**, the **UVic EcoCAR** team did extremely well as a new team, bringing both surprise and additional excitement to the event. The judging panels, consisting of technical experts and managers from GM, Argonne National Lab, Natural Resource Canada, Transport Canada, MathWorks, dSpace and other sponsoring organizations, awarded the UVic team seven trophies, including:

- 2nd Place Overall
- 1st Place First Year Technical Reports
- 1st Place, MathWorks Modeling Award
- Best Electrical Systems Presentation
- 2nd Place, Hardware-in-Loop Evaluation
- 3rd Place, dSPACE Embedded Success Award
- Best Media Relations Program

The team received 937.7 total points out of 1000. The 1st Place Overall Award went to The Ohio State University with 947.5 points – a team with more than 15 years of participation in the Challenge-series green vehicle competitions.

The UVic design is a Plug-in, 2-Mode Plus, All Wheel-Drive (AWD), Extended Range Electric Vehicle (E-REV). The innovative green vehicle powertrain design consists of a GM E85 ethanol blended engine, a leading-edge GM two-mode hybrid transmission, an additional UQM PowerPhase 125kW rear traction motor, a team designed A123 21kW-hr lithium-ion battery pack, a new control system and various mechanical and electrical modifications. The new powertrain components and various control systems have been incorporated into the vehicle design with a predicted all-electric range of 65 km, combined maximum driving power of 285 hp, equivalent gas efficiency of 2.5 litres/100 km, and a 25% improvement in acceleration times (0-60 & 50-70 miles/hour) compared with the stock vehicle.

The photo shows the representative members and faculty advisors of the UVic EcoCAR team at the **Award Ceremony in Toronto with the Federal** Minister of Natural Resources, Lisa Raitt, and representatives from the US Department of Energy, General Motors and Argonne National Laboratory.

