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**Advanced Engineering Tools Guide Student Teams to Develop
'Green' Cars of the Future**
*EcoCAR Sponsors Provide Teams with Model-Based Design Technologies in
Advanced Vehicle Competition*

DETROIT (May 5, 2009) *EcoCAR: The NeXt Challenge* today announced that three of the competition's Platinum Sponsors, dSPACE, National Instruments and The MathWorks, are providing more than $2,300,000 of cutting edge hardware and software tools to help student teams design the green cars of the future. *EcoCAR* teams learn real-world automotive engineering practices through the use of Model-Based Design and graphical system design technologies that include hardware-in-the-loop (HIL) and software-in-the-loop (SIL), which help to bring the students' vehicle visions from concept to the road. Students will unveil their final designs at the competition finals in Toronto on Friday, June 12, 2009.

Model-Based Design is a process that provides professional engineers with real-time, cost-effective simulation. In the competition, it enables the student engineering teams to test virtual versions of their vehicles before the actual designs are assembled. The highly sophisticated technology serves as a crucial first step in the vehicular development by allowing students to calculate real-world conditions using advanced models, basically creating a virtual car. The *EcoCAR* students are working in teams to iterate on "what if" scenarios to validate their assumptions in a simulated environment to test hybrid controls strategies using SIL technology from The MathWorks and National Instruments. With their designs fully tested, they are trying out their work in HIL systems supplied by National Instruments and dSPACE.

dSPACE, a Michigan-based manufacturer of mechatronic control systems, is contributing a complete product line of tools for embedded software development and testing with a cumulative value of more than $1 million. These tools include: MicroAutoBox, Rapid Control Prototyping (RCP) systems, HIL simulators, measurement and calibration hardware and software, autocode generating software and other tools.

Throughout the design phase, *EcoCAR* students are using the dSPACE Simulator, which enables them to cover every conceivable test scenario ranging from testing single engine control units to integration testing of the whole vehicle. The *EcoCAR* teams using dSPACE's HIL technology include Howard University, Mississippi State University, North Carolina State University, The Ohio State University, Pennsylvania State University, University of Victoria, University of Waterloo and West Virginia University.

"We are honored to be able to provide the *EcoCAR* students with such a sophisticated tool set because it offers them an opportunity to use technology they typically wouldn't have access to in school," said Vivek Moudgal, Director of Sales for dSPACE Inc. "Schools are already doing a great job of teaching specific pieces of the vehicular engineering puzzle, but the *EcoCAR* competition is taking it one step farther by producing engineers that excel at each phase of production. Ultimately, this will allow them to be better prepared for the real world come graduation."

National Instruments, a leader in virtual instrumentation based in Texas, is supporting teams by donating more than $300,000 worth of engineering hardware and software to the *EcoCAR* competition in 2009. This donation of modular, flexible, cost-effective equipment, that includes NI LabVIEW graphical system design software, CompactRIO in-vehicle embedded control systems and PXI modular simulation systems provides an entire HIL solution for several teams. The student teams are using these tools to design, prototype and deploy their vehicles and tackle the unique algorithm engineering challenges associated with developing advanced hybrid vehicles.

EcoCAR teams using HIL technology from National Instruments include Embry-Riddle Aeronautical University, Georgia Tech, Michigan Tech University, Missouri University of Science and Technology, Rose-Hulman Institute of Technology, Texas Tech, University of Ontario Institute of Technology, University of Wisconsin and Virginia Tech. Two of these teams, Embry-Riddle and Virginia Tech also are using the National Instruments SIL solution for their projects.

"Our HIL and SIL technologies make it possible for the teams to work in real time, which improves the engineering process and gives the students more time to perfect their designs," said Ian Fountain, dynamic systems segment manager at National Instruments. "With the ability to experiment and test different tools and parts, the students can bridge the domain of models to the real world, a necessary transition in the deployment phase of vehicle development."

The MathWorks, a Natick, MA-based company committed to advancing education in engineering, science, and math, is donating software for Model-Based Design, including its core software MATLAB and Simulink. The company is also delivering intensive training to all student teams and faculty advisors and providing experienced automotive industry consultants as mentors who work closely with students throughout the three-year competition. To date, The MathWorks has provided more than $1 million in product and in-kind donations to the competition. All seventeen *EcoCAR* teams are using The MathWorks tools for Model-Based Design.

"Through hands-on education and direct contact with industry leaders, students are motivated to learn theory and then apply what they have learned," said Liz Callanan, community relations manager for The MathWorks. "Model-Based Design is used by leading automotive designers worldwide, and through the *EcoCAR* program, we are pleased to help students emerge from this competition better prepared for careers that require the skills to solve complex engineering challenges."

For more information about Model-Based Design technology, please watch the following videos from Embry-Riddle and The Ohio State University: http://www.youtube.com/watch?v=uAc9nEhrd7c, http://www.youtube.com/watch?v=QF7Z7CoZW5o.

About *EcoCAR*
EcoCAR is a three-year competition that builds on the 20-year history of DOE advanced vehicle technology competitions by giving engineering students the chance to design and build advanced vehicles that demonstrate leading-edge automotive technologies. General Motors provides production vehicles, vehicle components, seed money, technical mentoring and operational support. The U.S. Department of Energy and its research and development facility, Argonne National Laboratory, provides competition management, team evaluation, technical and logistical support. Through this important partnership, *EcoCAR* aims to inspire and support the next generation of scientists and engineers to unite around the common goal of sustainable mobility. For more information visit www.ecocarchallenge.org.

About dSPACE
dSPACE is the world's leading producer of engineering tools for developing electronic control units (ECUs) and mechatronic controls. The company was one of those that opened up this market segment some 20 years ago, and has remained one of its driving forces to this day. Using dSPACE systems, manufacturers of controllers and electronic control units (ECUs) dramatically reduce their development times and costs, and noticeably increase their productivity. The reason is their optimum mix of standard solutions for rapid control prototyping, automatic production code generation, hardware-in-the-loop simulation, and ECU calibration. They also provide comprehensive services – from on-site training through to custom engineering.

About National Instruments
National Instruments (www.ni.com) is transforming the way engineers and scientists design, prototype and deploy systems for measurement, automation and embedded applications. NI empowers customers with off-the-shelf software such as NI LabVIEW and modular cost-effective hardware, and sells to a broad base of more than 30,000 different companies worldwide, with no one customer representing more than 3 percent of revenue and no one industry representing more than 10 percent of revenue. Headquartered in Austin, Texas, NI has more than 5,000 employees and direct operations in more than 40 countries. For the past 10 years, FORTUNE magazine has named NI one of the 100 best companies to work for in America. Readers can obtain investment information from the

company's investor relations department by calling (512) 683-5090, e-mailing nati@ni.com or visiting www.ni.com/nati. *CompactRIO, LabVIEW, National Instruments, NI and ni.com are trademarks of National Instruments.*

About The MathWorks

The MathWorks is the leading developer of mathematical computing software. MATLAB, the language of technical computing, is a programming environment for algorithm development, data analysis, visualization, and numeric computation. Simulink is a graphical environment for simulation and Model-Based Design of multidomain dynamic and embedded systems. Engineers and scientists worldwide rely on these product families to accelerate the pace of discovery, innovation, and development in automotive, aerospace, electronics, financial services, biotech-pharmaceutical, and other industries. MathWorks products are also fundamental teaching and research tools in the world's universities and learning institutions. Founded in 1984, The MathWorks employs more than 2,100 people in 15 countries, with headquarters in Natick, Massachusetts, USA. For additional information, visit www.mathworks.com.

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