



# Media Advisory



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**For Immediate Release |**

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## **Bright Minds on Display at Intelligent Ground Vehicle Competition**

DETROIT ARSENAL, WARREN, MI — Some of the worlds' brightest young minds in the robotics field will converge on Oakland University for the 17th Annual Intelligent Ground Vehicle Competition (IGVC) June 5-8, 2009.

The competition, being held on the Rochester, MI, campus offers college students a chance to experience a multidisciplinary, theory-based, hands-on, team-implemented, outcome-assessed experience that is not possible sitting in a classroom.

The U.S. Army Tank Automotive Research, Development and Engineering Center (TARDEC) located in Warren, MI, is one of the event's main hosts. Along with providing outreach and support during the competition, TARDEC is letting young students know how imperative competitions like this are to further developing robotics technology that is important and relevant in helping protect today's warfighter.

"TARDEC plays a major role in writing the rules, developing the concepts and technical aspects of the competition, along with providing support in terms of manpower in technical judges and field setup and design," IGVC Director and TARDEC Joint Center for Robotics (JCR) Mechanical Engineer Bernard Theisen remarked. "It is amazing to see all the people that come out of the competition and the things they go on to do. This is something that has grown significantly over the last several years."

The IGVC competition consists of 52 teams from 48 universities throughout the United States, Canada and Japan. Teams must include undergraduate and graduate students, and be supervised by at least one faculty advisor. Michigan will have a total of 10 teams competing in the competition with three from University of Michigan – Dearborn, two teams from Lawrence Technological University and one team each from Wayne State University, University of Detroit Mercy, Michigan Technological University and Oakland University.

Based on product realization, the competition encompasses the very latest technologies impacting industrial development and involves subjects of high interest to students. The competition culminates months of work. Many students' receive college course credits for their work which must be complete by semester's end. The end-of-term deadline adds the business practicality of a real-world constraint that includes the excitement of potential winning recognition and a possibility of \$7,500 in awards.

"Kids come up with some pretty creative and relevant stuff in terms of technology that is being used today," commented Theisen. "Right now there are not that many academic

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robotics programs in the country. Twenty-five percent of kids studying robotics throughout the country will be at this competition.”

Students at all levels of undergraduate and graduate education contribute to the team effort, and those at lower levels benefit greatly from the experience and mentoring of those at higher levels. Team organization and leadership are practiced, and there are even roles for team members from business and engineering management, language and graphic arts, and public relations. Students solicit and interact with industrial sponsors who provide component hardware and advice. This also gives them an inside view of industrial design.

The technologies involved in the IGVC come from a wide range of disciplines and are of great current interest in industry and engineering education. The technologies also involve today’s emerging and burgeoning industries. Working with these applications now provides great opportunities for breakthroughs, innovation and employment opportunities for knowledgeable young engineers in the immediate future.

The competition focuses on autonomous competition, design completion and navigation completion. These areas pertain to the robots mobility, look, feel and interaction with its controller. Separate winners will be named in each of these areas and receive awards of \$3,000 for the autonomous competition, \$2,000 for design and \$2,500 for navigation. Grand Awards are given to the top three teams whose robots perform the best in all competitions combined. Last year the University of Detroit Mercy team took first overall, University of Michigan – Dearborn Team 2 took second and Princeton University placed third.

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## Notes:

*The event is open to the media. According to officials, the best day for visuals is June 8. For more information, please contact TARDEC Public Affairs Officer Bill Dowell at (586) 907-8676, [william.dowell2@us.army.mil](mailto:william.dowell2@us.army.mil) or Oakland University Assistant Director of Media Relations David Groves at (248) 370-2759, [groves@oakland.edu](mailto:groves@oakland.edu).*

*There are six photos available for use with this release. Caption information follows. To download the photo, go to <http://www.tardec.info/pressreleases/>.*

## Captions:

**090601-A-1234D-001.jpg**

Pictured left to right are: National Defense Industrial Association (NDIA) Michigan Chapter Robotics and IGVC Chair Gerald Lane; Professor and Dean of Oakland University’s School of Engineering and Computer Science Pieter Frick; NDIA Michigan Chapter President Paul Curtis; IGVC Director and TARDEC Mechanical Engineer Bernard Theisen; and Oakland University Professor Ka C. Cheok. Paul Curtis presents Dean Frick



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with a donation check to continue the fine IGVC tradition at Oakland University. (U.S. Army TARDEC photo by Carrie Deming.)

### **090601-A-1234D-002.jpg**

Pictured left to right are: NDIA Michigan Chapter Robotics and IGVC Chair Gerald Lane; IGVC Director and TARDEC Mechanical Engineer Bernard Theisen; NDIA Michigan Chapter President Paul Curtis; Oakland University Professor Ka C. Cheok; and Professor and Dean of Oakland University's School of Engineering and Computer Science Pieter Frick pose with an Oakland University Robot. TARDEC and NDIA's Michigan Chapter play major roles at the annual IGVC event. (U.S. Army TARDEC photo by Carrie Deming.)

### **090601-A-1234X-001.jpg**

The 2008 Grand Award University of Detroit Mercy robot, *Ceratops*, autonomously navigates an obstacle during last year's competition. Some of the worlds' brightest young minds in the robotics field will converge on Oakland University, for the 17th Annual IGVC June 5-8, 2009. (U.S. Army TARDEC photo.)

### **090601-A-1234X-002.jpg**

Detroit Mercy's *Ceratops*, the 2008 Grand Award winner autonomously navigates an obstacle during last year's competition. (U.S. Army TARDEC photo.)

### **090601-A-1234X-003.jpg**

The overall second place winner, University of Michigan – Dearborn Team 2, navigates their robot between obstacles during the 2008 IGVC. (U.S. Army TARDEC photo.)

### **090601-A-1234X-004.jpg**

The Princeton University team navigates its robot to the starting line during the 2008 IGVC. Princeton took third place overall and honors as Rookie Team of the Year. (U.S. Army TARDEC photo.)

*TARDEC is the Nation's laboratory for Ground Systems Integration to ensure U.S. Soldiers continue to be the best-equipped and most lethal, survivable and sustainable fighting force on Earth. For additional information or to schedule an interview with a TARDEC subject-matter expert, please contact Bill Dowell at (586) 574-6683, [william.dowell2@us.army.mil](mailto:william.dowell2@us.army.mil).*