

Sen. Levin Heralds 16th Intelligent Ground Vehicle Competition (IGVC)

University of Detroit Mercy team takes 1st Place and the IGVC Lescoe Cup



University of Detroit Mercy took first place.

The sixteenth IGVC saw many of its previous year records broken, 47 teams registered and 41 arrived at Oakland University to participate. Twenty-seven teams qualified by passing mandatory safety checks and exhibiting capabilities of autonomous mobility. A new record in cash awards and recipient schools was also set with \$28,450 in cash awards going to 18 schools.

Sen. Carl Levin (D-Mich.), chairman of the Senate Armed Services Committee, welcomed the students and faculty as the keynote speaker in the opening ceremonies on competition day early last month. Other opening ceremony dignitaries included Dr. Pieter Frick, dean of the School of Engineering and Computer Science at Oakland University, Grace Bochenek, Ph.D., director of the U.S. Army Tank Automotive Research, Development and Engineering Center (TARDEC), and Dennis Majkowski, president of the Association for Unmanned Vehicle Systems (AUVSI) in Arlington, Va.



Sen. Carl Levin welcomes the competitors.

University of Detroit Mercy team took first place, winning the IGVC Lescoe cup, named in memory of IGVC co-founder Paul Lescoe, TARDEC Robotics electronic engineer. The team, guided by three faculty members--Professors Mohan Krishnan, Mark Paulik and Nassiff Rayess--bested their previous pinnacle of third place last year. The team's enhanced articulated platform completed the autonomous challenge course weaving through the tight turns with methodical creature-like movements.

Bluefield State College took first place in the IGVC autonomous challenge by successfully completing the course in three minutes and four seconds. The course this year had increased complexity with a double set of chicanes to accommodate reverse direction runs in the second of three heats.



Bluefield State College took first in the Autonomous Challenge.

The autonomous challenge course ran a figure-eight pattern, with judges moving obstacles, a challenge to the machines and vision.

University of Michigan at Dearborn entered two autonomous maize and blue robots. Both qualified but one, team Wolf, took second place overall and the Lescoe trophy. The Wolf team took second place in the navigation challenge (NC) and third



A University of Michigan - Dearborn entry.

The Top Six Teams Overall Point Scores

Place	School	Team	Prize	AC	DC	NC	J AUS	Total
1	University of Detroit Mercy	CERATOPS	Cup	24	16	36	2	78
2	University of Michigan – Dearborn	Wolf	Trophy	32		30		62
3	Princeton University	Kratos	Award	4	24	18	4	50
4	Bluefield State College	Anassa IV		48				48
5	Lawrence Technological University	Viper		40			6	46
6	Embry-Riddle Aeronautical University	Reagle		16	20	4	4	44

in the AC, earning a total of 62 points for a solid second place showing.

Princeton University, took third place overall and the Rookie of the Year Award and their placing was anchored by their first place finish in the design competition (DC). Princeton last competed in IGVC in 1994, meaning the students attending this year were likely just starting grade school during Princeton's last attempt. Rookie of the Year competition was close with Embry Riddle Aeronautical University, guided by Professor Charlie Reinholtz, coming within six points for the rookie award.

For the third year IGVC has hosted the Joint Architecture for Unmanned Systems (JAUS) Challenge sponsored by the Office of Undersecretary of Defense's Joint Ground Robotics Enterprise. Each year, a more complex set of JAUS tasks are introduced. This year Hosei University from Japan and Lawrence Technological



Rookie of the Year Princeton University's entry.

University achieved the highest Level III certification. Nine other teams achieved the Level II certification. JAUS awards were presented by USMC Col James Braden, Program Manager Robotics System Joint Project Office and Dan Gehring from the Aviation Missile Research, Development and Engineering Center (AMRDEC).

The pictures shown are the compliments of University of Missouri Science and Technology, who had the most teams, there in total, competing this year. IGVC has been organized and staffed by members of the Great Lakes Chapter of AUVSI and co-hosted by Oakland University and TARDEC.

FOR MORE INFORMATION:

For more information on IGVC results, technical papers, videos and photographs visit the IGVC website www.IGVC.org; or contact IGVC Operations Director Bernard Theisen at 586-574-8750 or Bernard.theisen@us.army.mil; professor Ka C. Cheok of Oakland University at cheok@oakland.edu; for more on the Navigation Challenge and Design Challenge, contact Bill Agnew at agnew26@comcast.net; for more information on the Autonomous Challenge, contact Jerry Lane of Applied Research Associates at 586-242-7778 or glane@ara.com.

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