IEEE Fourth Annual Ottawa Robotics Competition: A Success Story of Local Involvement

The 2006 Institute of Electrical and Electronics Engineers (IEEE) 4th Annual Ottawa Robotics Competition has grown and strengthened, from a mere five schools in 2003 to this year with no less than 11 schools and 18 teams competing in two challenges – for a total of 103 Ottawa area elementary school students.

Schools participate in competitions like this because "It's important to expose students to the wider community, and gives them a chance to make friends with their peers form other schools," asserts Dr Aisha Sherazi, Principal of the Abraar School in Ottawa's west end. "It also helps them learn about other things, that are not necessarily part of the curriculum."

On Sunday May 7, 2006, the IEEE Ottawa Section ran the two challenges at the Ottawa Congress Centre in conjunction with the IEEE's annual Canadian Conference on Electrical and Computer Engineering (CCECE). For the Junior Challenge, Abraar School's *Robo-Tech* won the overall challenge, with Henry Munro Middle School's *Munrobots* getting an award for Team Spirit, and Goulbourn Middle School's *Linebot 3* winning an award for Technical Innovation. For the Senior Challenge, Katimavik Elementary School's *Error 404* won the overall challenge, with Katimavik Elementary School's *Error 404* and *Firewalls* sharing

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the Team Spirit award, and Roberta Bondar School's *Bondar Bots* winning the Technical Innovation award.

The competition, sponsored by the Faculty of Engineering at the University of Ottawa, was a huge success. As the IEEE Canada President, Dr. Robert Hanna, said in the closing moments, "As far as I am concerned, everyone is a winner!" See the competition's web site at http://www.ottawaroboticscompetition.org for more information.
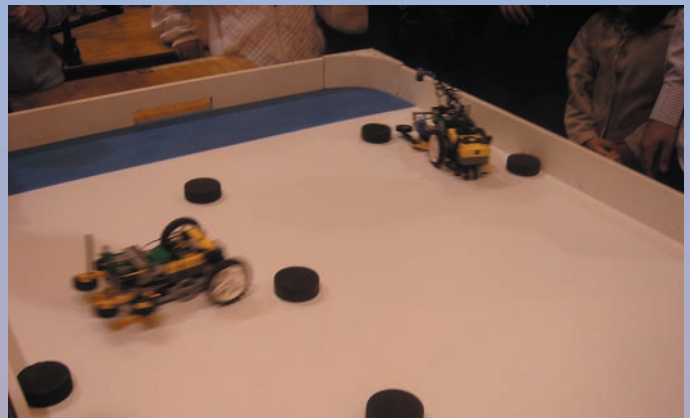
--- *About the Author* ---

Rami Abielmona (S'00-M'02) is a Ph.D. candidate with the School of Information Technology and Engineering at the University of Ottawa, where he received his B.A.Sc. and M.A.Sc. degrees in computer engineering. He received the "Best Student Poster Award" at the Knowledge Network Conference in 2002, and the "Student Research Excellence Scholarship" by CITO in 2003. He is currently the Chair of the local IEEE Robotics Competition Committee.

The Goulbourn Middle School's *Linebot3* team calibrates their light sensor in preparation of their timed run through the junior challenge. The junio teams found out that the shadow under the bridge needed to be accounted for, as it differed from the values they obtained with their own school mockups.

Two senior challenge entries battle it out in the hockey arena. Points were awarded for performance in the arena, robot design, project report and project poster. A difficult aspect of this challenge was the puck-seeking, since the pucks are randomly placed and the robots only have two light sensors to work with, along with their two touch sensors to recover from collisions.

Some advice from teacher Andrew Hicks for a member of the Roberta Bondar senior challenge team. The team ended up garnering the Technical Innovation award for their novel use of an over-the-top light sensor to pre-detect pucks within the arena.

The *Bondar Bots* team gathers around their design table to make some last-minute adjustments in preparation of their quarterfinal matchup against Katimavik Public School's *Error404*s, the eventual overall winners of the senior challenge.

The Katimavik Elementary School team's spirit almost reaches the ceiling as they pose (very briefly) with their trophy as senior challenge overall winners. They dubbed their entry "*Error 404*", a name only this generation of aspiring engineers could select.

Roberta Bondar School came first in the Technical Innovation category of the senior challenge for their entry *Bondar Bots*, seen orbiting just to Bob Hanna's right. Don't be surprised if the next photo from this group comes from the international space station.

Goulbourn Middle School's junior level team, a bit tired after an exciting but long day, took home the Technical Innovation award for their entry *Linebot 3*. Watch out for them next year!