

A behind-the-scenes look at the UNB robotics competition champions

by Mitchell Bernard

The sound of cheers filled the Dineen Auditorium last Sunday as robots went head-to-head in a battle to ultimately be crowned the UNB Robotics champion.

The sixth annual UNB Robotics Competition couldn't get any more exciting. Close matches made for an eventful weekend as teams from as far as Toronto competed to see who could build the better robot.

The competition kicked off on Friday, February 15. One of the teams representing UNB was "Team Alpha Super Awesome Cool Dynamite Wolf Squadron". Composed of Chris Rouse, Brad Greer, Michael Wylie, and Matthew Webb, the team was given their task for the weekend: Build a robot which can shoot a ball into an opponent's goal.

Tricky? Of course it is. But for these electrical engineering students, this was just a walk in the park.

The team discussed their strategy for the weekend on Friday evening. Saturday would be a building day for

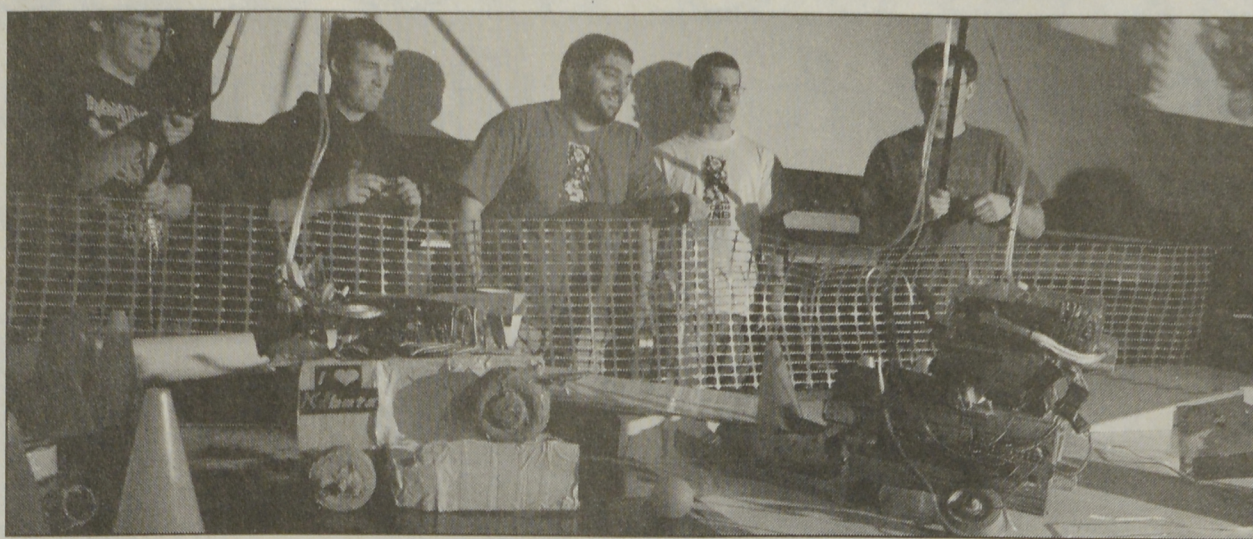
all teams, and the competition would conclude on Sunday with the actual matches.

Saturday was an early morning rise for the team from UNB. They were set to begin the building process at 8:30 am. They were given 12 hours to build a robot for the competition and the guys wasted no time.

There was a scrap pile consisting of old computer parts and other discarded material donated by local companies and organizations for teams to rummage through. In this, the team found a roll of strong metal wire with holes along its axis and hose clamps. Both of these items they deemed to be important for the robot journey they were about to embark.

After rummaging, the team began to cut out the body for the robot and prepare the tires. "The longest item to build for the robot, and most important, is the drive system. If you can't drive, you can't play," said Wylie.

Following the building of the body, the team began their defence strategy. Since each team has a goal (think air hockey with higher nets), the team decided to attach two arms to their robot. When the arms were completely extended, the entire goal was covered



Andrew Meade / The Brunswickian

A pink robot from Team Killbot Factory squares off on Sunday in UNB's annual Robotics Competition.

which blocked opponents' shots made from the ground.

Once they completed their defence strategy, the team constructed a holding path or chamber that a ball could roll down into. They attached a rotating spoon to the front of the chamber and thus, created a shooting device for their robot.

"The drive system probably took eight hours to get perfect. In the end, we were concerned a wheel might break on us," said Wylie. "We had a backup one

ready though!"

Prior to each match, each team was given a control box. The control box is what you have to plug into so your robot functions. The teams have just a few minutes to test before the competition begins. All robots were controlled by wireless remote control systems. This was a first for the UNB Robotics Competition. Participants were able to follow their robot while driving.

"On Sunday, time was of the essence. We had two hours before the first round

was to begin and we had no stand for the control box to mount to. We quickly used a Tupperware container lid, turned upside down, and some very long bolts through the body as a platform for the control box," said Wylie.

The team got off to a great start in the tournament. Winning at all of their round robin games and qualifying round matches, the team clinched a berth in the quarterfinals.

In between matches, the team usually made small adjustments to their robot.

Such adjustments included making sure everything was tight on the robot.

The quarterfinal match proved to be a close one. After a tie in regulation time, the teams needed overtime to settle the match. In the overtime frame, no goals were scored. The rules state whichever team has a ball closer to their opponent's goal after one minute would be declared the winner.

Their opponent's ball rolled near their goal just as the timer stopped. Luckily, the judges ruled that their opponent's ball rolled in after the timer, and thus declared Team Alpha the winner.

Team Alpha was able to take this momentum into their semi-finals and finals matches. Their folding arm strategy proved to be too much for their opponents to handle. They won both of their final two matches and were crowned champions of the 2008 UNB Robotics Competition.

The grand prize for the event was \$500.

"We plan to split the money equally," said Wylie.

This was the first robotics competition for all members of Team Alpha, and certainly it will be one they will remember for years to come.

Changing policy to affect climate change

by Alison Clack

This Valentine's Day, following an ice storm and a half-day of cancelled classes, the Gregg Centre for the Study of War and Society presented a lecture addressing climate change through public policy.

While some might wonder why a centre focused on war and society might join the issue of global warming and climate change, Dr. Marc Milner, Director of the Gregg Centre, answered the question in his introduction.

"Climate Change," he said, "is an engine for instability and an engine for war and conflict."

After his opening words, Dr. Milner introduced the speaker for the lecture, Dr. Richard C. J. Somerville.

Dr. Somerville works for the Scripps Institution of Oceanography at the University of California, and was one of 152 lead authors who contributed to the United Nations' Intergovernmental Panel on Climate Change's most recent report on climate change.

The Intergovernmental Panel on Climate Change, or IPCC for short, is a governmental and scientific organization, which is the brainchild of the UNEP (United Nations Environmental

Programme) and the WMO (World Meteorological Organization).

In Somerville's words, the IPCC "does not conduct new research, [but] only assesses on a comprehensive, objective, open, and transparent basis the available scientific information in peer-reviewed literature."

Essentially, the IPCC compiles information and addresses speculation gathered in scientific journals and editorials for proposal to policymakers.

The IPCC published their first assessment report on climate change in 1990 where, through their findings, they confirmed climate change and global warming were realistic problems. By 2001, a third assessment report was published, in which they confirmed that human activities were a factor causing climate change.

As Somerville put it, the IPCC had found that "there is new and stronger evidence that most of the global warming observed over the last decade is human caused."

Predictions supported by the IPCC for how climate change and global warming could affect the environment in the future are immense. Somerville said that it is projected that sea levels will rise another 0.2 to 0.6 meters by the end of the 21st century. Ocean acidity is also estimated to rise between 0.14

to 0.35 pH by 2100; ocean acidity can affect the ability of shellfish to develop shells and exoskeletons and it can affect large marine animals, like squids' ability to extract oxygen from the water. The snow and ice cover in the Arctic will contract and the likelihood of heat waves and precipitation will continue to increase in parts of the world.

Arctic temperatures have risen at twice the rate of the rest of the world, the ocean is warming to depths of 3,000 metres, 11 of the past 12 years are among the 12 warmest since 1850, and North Atlantic hurricanes have intensified since 1970.

After Katrina, more North Americans began wondering what global warming meant to the intensity of storms and hurricanes. Records were broken in 2005, as it was the most active hurricane seasons in recent history, however, the past few years after that have been calmer during the same time period.

"Global warming doesn't cause hurricanes but it can tilt the scale to make the chance of them forming more likely," explained Somerville. Therefore, global warming, thus far, will not directly cause more active hurricane seasons, but it may increase the chances of hurricanes like Katrina happening again.

To prevent the continuation of current practices that persist in adding to

climate change and global warming, Somerville recommended advocating changes to public policy – which is exactly the intent of the IPCC. The IPCC does not set public policy, but makes recommendations to the policymakers as to what measures should be taken in order to minimize climate change at the rate their nation wants.

"We need more political courage and voter pressure," says Somerville about governments implementing policy regarding addressing climate change. He also spoke of his belief that one should not stop research into climate change simply because of the uncertainty of its cause. As he put it, one does not simply stop medical research because one is unsure of how well it will work.

To illustrate this better, he referenced a quote from an American General: "A military leader is never 100% certain. If one waits to be certain, something bad will happen."

Somerville finished with these words, depicting the responsibility of Earth's residents for the wellbeing of their planet.

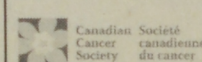
"The climate system is a global commons. Nobody owns it, and nobody has the right to damage it."

Further information is available on the IPCC's website, <http://www.ipcc.ch/>.

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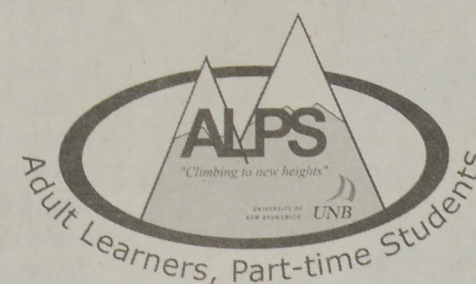
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ALPS Call for Nominations for Executive Board Members
The ALPS (Adult Learners, Part-Time Students) Executive Board of Directors is calling for nominations for the term of May 2008-April 2009.

The following positions are available:

President
VP Administration
VP Finance
VP Promotions
VP Social Events
VP Student Services
ALPS Senate Representative

Nomination forms and detailed terms of references for each position can be picked up at the ALPS office located in 130A of Marshall D'Avray Hall.

Students must have a GPA of 2.0 or above and meet one of the following criteria:

- Be a Registered Part-Time Undergraduate Student / Fredericton Campus
- Be a Registered Part-Time Undergraduate Student / Distant Learner
- Be a Registered Full-Time Undergraduate Adult Learner (25 years old and over)

Deadline for nominations is 11:59 pm on Friday, April 4, 2008.

The elections will be held the week of April 14 to 18, 2008.

For more information and detailed terms of reference for these positions, please feel free to contact the ALPS office at alps@unb.ca. You can also check out our website at www.unb.ca/alps

Please note that a small honorarium is paid for these positions.