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the IRON WARRIOR

THE NEWSPAPER OF THE UNIVERSITY OF WATERLOO ENGINEERING SOCIETY

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Terrorists Caught Attempting To Bomb Parliament Hill

PETER SZABO
3A SYSTEMS DESIGN

Terrorism... in our own backyard? On June 2, mere weeks ago, 17 Muslim men from various middle-eastern backgrounds were arrested in numerous overnight raids by police and RCMP in Toronto, Mississauga, and Kingston as a result of the largest counter-terrorism effort in Canadian history. The accused range from under 18 to the oldest of age 43. These individuals varied from: High school students, university grads, a computer engineer working under contract for AECL (Atomic Energy of Canada Ltd) at the time of the arrest, and one of the oldest being a 43 year old school bus driver with 4 children. They have all been identified in the media except for 5 youths under the age of 18 whose identities remain hidden.

According to investigators, the conspirators were attempting to construct truck bombs by using ammonium nitrate as an explosive. Three tonnes of it was captured by police, which is 3 times more than the amount used in the Oklahoma City bombing of last decade.

Officials have not specified potential targets, however, there is reason to believe the suspected targets were parliament buildings, the CSIS (Canadian Security Intelligence Services – aka the Canadian CIA) building in Toronto, the CBC broadcasting centre, Toronto Stock Exchange, unspecified military installations, and other Ontario landmarks. One suspect is even charged for claiming he was planning on



According to investigators, some of the suspected targets included the Parliament Buildings in Ottawa, the CSIS headquarters, and the CBC broadcasting centre.

taking Prime Minister Stephen Harper hostage and beheading him if their demands were not met.

The arrests were made shortly after one of the suspects put a \$2000 down payment on chemicals when he thought he was

purchasing them from what would prove to be an undercover police officer. When the individuals were arrested, police also seized a fully functional triggering device in one of the suspect's homes. There is allegedly evidence of business cards, and plans of pur-

chasing a farm as a cover for the purchase of more ammonium nitrate for future plans. In fact, two of the suspects were actually

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UWAFT at Challenge X

UW MEDIA RELATIONS

The University of Waterloo's Alternative Fuels Team (UWAFT) placed first in several categories of Challenge X: Crossover to Sustainable Mobility, a three-year North American competition to develop a sustainable crossover vehicle.

The team's entry was a hydrogen fuel cell hybrid Chevrolet Equinox. UW's vehicle was unique in that it combined an alternative fuel powertrain with hydrogen and hybrid technologies to reduce emissions and environmental impact.

The UW team received top prizes for the following categories: best control strategy presentation; first place in the GMability outstanding outreach program; best website; best K-12 educational outreach; and best community outreach.

As well, the team finished in second place in both the freescale semiconductor: silicon on the move category and the Mathworks: crossover to model-based design category. The team also won the Spirit of the Challenge award.

During the first phase of the competition last year, UWAFT's detailed vehicle design process won eight of 10 categories and earned the team first place. "We've worked very hard this past year," said Chris Mendes, UWAFT co-captain and lead mechanic. "The real value of this competition is the first-hand exposure we get to the advanced technologies being developed for the vehicles of tomorrow."

"I congratulate the University of Waterloo team on its success in this very challenging competition," said Gary Lunn, Canada's federal minister of natural resources. "The students on the team have shown that they are ready and able to create the next generation of automobiles using the latest technologies. These bright, innovative thinkers will also help put Canada at the forefront of automotive engineering, developing cleaner, more efficient vehicles

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Nortel Establishes UW Chair

UW MEDIA RELATIONS

On June 9, 2006, Nortel announced it is co-sponsoring a research chair at the University of Waterloo focused on technologies that will help shape the future of wireless networks. The Natural Sciences and Engineering Research Council of Canada (NSERC)-Nortel Chair in Advanced Telecommunications Technologies was established today at a ceremony with Mike Zafirovski, president and CEO, Nortel; Colin Carrie, parliamentary secretary to the minister of industry; Nigel Lloyd, executive vice-president, NSERC; and David Johnston, president, University of Waterloo.

Professor Amir Khandani, from the Department of Electrical and Computer Engineering, was appointed senior chair. Dr. Khandani is well-known in the industry for his research in communication systems design. He is the author or co-author of more than 200 refereed articles and several high impact patents, including a patent on symbol-based turbo-codes, a technique that is incorporated in multiple telecommunication standards. Another notable contribution is the shell mapping algorithm that is widely used in com-

mercial wire-line modems. Khandani currently holds a Tier 1 Canada Research Chair in Wireless Systems from the federal government.

The research program will focus on third (3G) and fourth (4G) generation broadband wireless technologies, leveraging Nortel's wireless innovation leadership, the University of Waterloo's reputation as one of the world's top technology research centres and NSERC's proven track record of supporting Canadian university research in science and engineering.

Currently deployed by major service providers around the world, 3G represents an important technical milestone for wireless communications because it extends cellular services beyond voice and text. 3G networks will make possible such services as mobile telehealth, instant Internet applications, new online financial and shopping capabilities, as well as entertainment services that include rapid music downloads, live sports, and mobile gaming. 4G will take wireless technology even further, achieving speeds comparable to wireline broadband and allowing for such

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From the Desk of Your Iron Editor



GABRIEL CHAN
EDITOR-IN-CHIEF

So this has been an exciting two weeks. Most football fans should be most satisfied with the spectacular matches so far; my wallet and I are definitely satisfied with the matches (thanks to Proline). There are some fans who were not satisfied, which is evident in the massive arrests after the game between Poland and Deutschland. Those German 'hooligan jails' are filling up fast and it isn't even halfway through the tournament yet. It is also sad that some people want to remove Iran from the tournament. Just because their country wants to nuke their neighbour off the face of the planet doesn't mean their football team should be disqualified. At least FIFA knows the difference between sports and politics AND knows how to NOT mix them. Now if only the Iranian leadership would realize that Jews don't have cooties and stop barring their athletes from competing with Israeli athletes.

For most of you, midterm season should be over; that means projects and assignments are back in full force, but so are the parties and other extracurricular goodies (such as Continuous Phase for some of you). I hope that you have either found a good job during the Initial Phase or you "threw away your interviews" upon discovering that you do not want the job after all. Sometimes, the best jobs are found in the Continuous Phase, since some companies or departments are late on approving a co-op "budget" or since a majority of your competitors (i.e. your classmates) have been matched. At any rate, happy jobmining!

This weekend should be wonderful. Why? Waterloo is going to Wonderland on Friday, courtesy of The Crew. Cheap tickets for a day of high adrenaline fun (I don't remember a single time I went to Wonderland for full price, ever). Missed



out on this? Saturday is another chance in the near future: not only will you get into Wonderland for half-price, but you could also see the New Talent Toronto show for free (if you don't know what this is, it is a regional singing competition). If you plan to go this Saturday, I sincerely hope you are comfortable hanging around fobby crowds.

Canada Day is also fast approaching: it is next Saturday! The Engineering Society helps with the day's festivities at the Columbia Ice Fields every year and the organizers are always looking for volunteers for many versatile tasks. So if you do not have anything planned for that day, email julyone@engmail to see how you can help. Also check out their website at <http://www.canadaday.uwaterloo.ca>

From the two issues that we published this term, we noticed that a large propor-

tion of the contributors to Iron Warrior are from Systems Design Engineering. Surely, this must be program-nepotism? It may be a reasonable conclusion, but so far I have not rejected a single submission this term. We are not discouraging SYDE students from contributing; we would like to see more contributions from other engineers, please!

Speaking of contributions, we are not getting enough student adverts. Subsequently, the Classified section is imploding. We all have lots of junk to sell or we are looking for junk with a modest deal. Why not use this media that has great exposure? Iron Warrior has a very large and diverse readership, ranging from pre-frosh to alumni from the last decade. Are you looking for housing in Fall 2006 or Winter 2007? Are you looking to sublet? Get the word out in the Iron Warrior.



the iron warrior magazine

Created by...

Read by...

Written by...

YOU!

If you want to contribute ANYTHING AT ALL,

drop by our office (opposite the Orifice) or e-mail us at iwarrior@engmail

IRON WARRIOR

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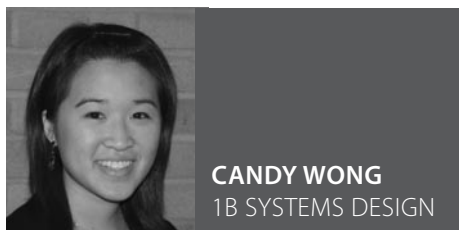
The Iron Warrior is a forum for thought provoking and informative articles published by the Engineering Society. Views expressed in The Iron Warrior are those of the authors and do not necessarily reflect the opinions of the Engineering Society.

The Iron Warrior encourages submissions from students, faculty and members of the university community. Submissions should reflect the concerns and intellectual standards of the university in general. The author's name and phone number should be included. All submissions, unless otherwise stated, become the property of The Iron Warrior, which reserves the right to refuse publication of material which it deems unsuitable. The Iron Warrior also reserves the right to edit grammar, spelling and text that do not meet university standards. Authors will be notified of any major changes that may be required.

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STUFF YOU SAY

CBET Moves to Engineering



CANDY WONG
1B SYSTEMS DESIGN

University of Waterloo's Centre for Business, Entrepreneurship and Technology (CBET) has proudly joined the faculty of Engineering on May 1, 2006. Sure, we are all tempted to think, how do the two relate?

CBET is the nearest thing that University of Waterloo has to a business school. The centre opened its doors in 2002 with an objective to offer a Masters program and valuable research and support to the Canadian economy. The Masters of Business, Entrepreneurship and Technology (MBET) focuses on delivering business solutions for technol-

ogy related industries. The program rids of generalized business approaches by emphasizing technological and innovative energies that are already the core strength of UW's reputation. Proposals to starting an undergraduate degree with similar objectives are in the process of discussion. CBET also houses the Institute for Innovation Research that provides education and research leadership in Entrepreneurial studies and the Entrepreneur's Association of Waterloo that currently has over 1000 student members.

The combination of the Engineering faculty and CBET benefits the Engineering faculty by strengthening the business knowledge and offering more electives for engineering students. More than 22% of all new commercial spin-off companies in Canada have originated from the University of Waterloo, which can give powerful alumni support for the CBET.

UWAFST leads Challenge X

Continued from front page

that will have environmental and economic "benefits for our country."

UWAFST's faculty adviser, Roydon Fraser, praised the team for building the first fully functional full-size, university-built fuel cell vehicle. Fraser is a professor of mechanical engineering with an interest in combustion engines and alternative fuels.

The UW team, which spent the past year integrating and refining advanced vehicle technologies into its vehicle, tested its work against 16 other teams during the second round of the competition last week, at the GM Proving Grounds in Mesa, Ariz. The UW team placed 14th overall.

The teams competed in more than a dozen static and dynamic evaluations, including tests for towing capacity, acceleration, off-

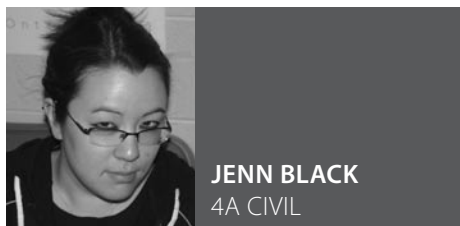
road performance, greenhouse gas impact, total well-to-wheels fuel economy, emissions and consumer acceptability. Teams also gave oral presentations and submitted a technical paper.

The annual Challenge X competition, organized by General Motors Corp. and the U.S. Department of Energy's Argonne National Laboratory, is inspiring hundreds of engineering students with a real-world application of their knowledge and skills.

It helps the next generation of engineers develop a greater awareness of automotive technologies for the 21st century. It also shows how cooperation of academia, industry and government is a good way to developing more energy-efficient and greener automotive technologies.

Major sponsors of the UWAFST team are Natural Resources Canada, the Ontario Ministry of Research and Innovation, Hydrogenics Air Liquide, Research In Motion and Marathon Technical Services.

U of Waterloo's Ring Road in Rough Repair



JENN BLACK
4A CIVIL

During the initial development of the University of Waterloo campus, a "ring road" was envisioned to keep traffic away from the pedestrian environment that would emerge on campus. This vision was eventually realized and now Ring Road encircles the main buildings on campus.

We all know it; we have to cross it daily to get to and from class and any other on-campus activities. Ring Road is the only vehicular access route to the buildings at the heart of campus. It is also used by

buses, bicycles, and pedestrians to get around campus. It is the University's vital transportation link and it looks like it should be on life support.

Have you ever really looked down and noticed the state Ring Road is in? If you have, you will probably agree that it is in extreme need of some work. Having Ring Road as the only link to the outside road network has crippled our ability to give it the care it desperately needs. Closing any section for reconstruction will severely disrupt the daily traffic flows.

The problems with Ring Road are numerous. There is load-associated damage, and environmental, construction, and material related damages. Any city-maintained road in as bad condition and with the same level of importance as Ring Road is a priority for rehabilitation or recon-

struction.

The worst section is the stretch from the Columbia Street entrance around the east side to the Engineering buildings. There are lots of longitudinal and transverse cracking, rough cuts for utility placement and repair, sunken manholes and catch basins, wheel-track rutting, and poor patch jobs done on potholes and larger cracks. I have to acknowledge the efforts of the UW road maintenance road crews; that they manage to keep the road from physically surging up and physically attacking passing vehicles and pedestrians is a feat to be sure.

Hesitancy to take any action in this area is understandable to some degree. The increased heavy trucks and machinery traffic due to the intense construction that has been ongoing in the area is having

some serious effects on the pavement. To repair the road before the bulk of the construction is completed would be ineffective as the increased construction loads would decrease the lifespan of the new pavement.

The west side of Ring Road is in exponentially better shape than the east side but it is still not in ideal condition. There is some bad centreline cracking and some moderate deterioration of the surface course of asphalt. For now, these deficiencies are not critical for immediate repair.

For those visiting the University of Waterloo, Ring Road provides somewhat of a first impression being possibly the first thing visitors see. An institution with an international reputation such as the University of Waterloo should be able to put a better foot forward.



McGuinty Backs Down on Closing Coal Plants



HAROUT MANOUGIAN
3A ELECTRICAL

On June 13, 2006, the provincial Liberal government announced that their plan to close down Ontario's four coal plants had been postponed indefinitely. Several reports had been released in the previous year by the Independent Electricity System Operator (IESO) and the Ontario

Power Authority (OPA) defining the extreme stress the plan would put on Ontario's electricity system.

Due to the announcement, Energy Minister Dwight Duncan cancelled an agreement with Union Gas, which would have seen the construction of a pipeline to the Thunder Bay coal plant in order to supply it with natural gas. The cancellation is not going to be cheap for Ontario taxpayers. "The costs will likely be somewhere around \$10 million to \$13 million. Union Gas has been in discussions with our officials," Duncan told the provincial legislature.

"It's symptomatic of the fact that they made a cynical promise and it doesn't matter how much it costs to bail out of parts of it or all of it, they'll just stick it to the hydro ratepayers," Conservative Leader John Tory said. NDP Leader Howard Hampton predicted the price tag will rise beyond \$13 million.

In addition a new energy plan, estimated at \$72 billion, will focus on the refurbishment and construction of existing and new nuclear facilities. Duncan announced the overhaul of four existing units at the Pickering B plant and the construc-

tion of one or two new reactors at an existing nuclear plant to be named later. It is speculated, however, that the Darlington site which was originally planned for 8 reactors, of which only 4 were built, is a prime candidate.

Energy Probe's Tom Adams said consumers can expect to see their rates increase by double-digit figures.

Seven Greenpeace anti-nuke activists wasted no time chaining themselves together in Duncan's office. The police were called in to cut the locks of the protesters.

How to Submit a Letter to the Editor

The Letter to the Editor section will feature short blurbs on issues that the reader cares about. Letters are significantly shorter than articles (100-200 words). Submit letters to iwarrior@engmail with subject line "Dear IW".

STUFF YOU SAY

Legion of Memory

JACQUI KAISER

PRODUCTION MANAGER, LEGION OF MEMORY

“To come closer to one’s own buried past, one must act like an excavator. Above all, one mustn’t be afraid of coming back to the same point time and time again – to spread it like one spreads the earth, to churn it like one churns the soil.” - Walter Benjamin, *Excavating and Remembering*

Legion of Memory is a performance that will explore the stories of war refugees who have come to live in the Kitchener-Waterloo region from all around the world. A site-specific event, this performance will attempt to animate the displacement of the refugee, while exploring the problem of war memorial in Canada today.

Mike Pearson says, “Site-specific performances are conceived for, mounted within and conditioned by the particulars of found spaces, existing social situations or locations, both used and disused.” These locations can be places of work, play, worship, etc. For many years, the disused Royal Canadian Legion on Ontario Street in Kitchener was a site of leisure for those war vets and their families who wanted to escape the memory of war and its atrocities, while at the same time hold on to the hope that their efforts were not in vain.

A soundscape will be incorporated into the performance featuring excerpts from interviews

with refugees from the former Yugoslavia. We want to focus on this community for two reasons: people from the former Yugoslavia make up a significant percentage of Kitchener’s population (approximately 30,000); second, the voices and stories of refugees from this part of Europe exist as a stunning reminder that despite all assurances and the best intentions of an international community, including all those who participated in the allied effort to win World War II, that war is an ever-present reality in our world, even in places where it was never supposed to happen again.

We ask, who are those living among us with the memory of a life elsewhere destroyed by war? We ask, where is the memorial to the legion of citizens who bear the burden of this experience of contemporary warfare, and how may we bear witness to their buried past?

Location:

The Former Kitchener Legion – 48 Ontario Street North, Kitchener

Dates:

Friday, June 16th - 8pm Friday, June 23rd - 8pm

Saturday, June 17th - 8pm Saturday,

June 24th - 8pm

Sunday, June 18th - 2pm Sunday,

June 25th - 2pm

Tickets at the door:

Adults - \$10

Students, refugees, legionnaires - \$5

Future of Wireless Research

Continued from front page

sophisticated uses as wireless sensors to monitor and manage everything from traffic stress on a bridge, to air pollutants, to personalized environment settings in the home.

“Moving to 3G and beyond requires a significant increase in speed and bandwidth capabilities for wireless networks. Each step forward requires large technical jumps to push technologies past their existing limitations,” said Zafirovski. “As one of Canada’s leading innovators, Nortel understands the value of university research partnerships in bringing together the best and brightest to create new technologies that not only greatly improve communications, but that are also commercially viable.”

The NSERC-Nortel chair is one example of how Nortel is working with government and academia to drive innovation in Canada by helping to turn academic research into successful, commercial products and services. The program is also intended to provide the necessary support to increase the number of graduate students in advanced telecommunications research at the University and to train future leaders of the telecom industry.

“Nortel and the University of Waterloo have partnered since the university’s very beginning almost a half century ago to strengthen Nortel’s ties to leading university research, to promote

advanced communication research in Canada and to meet the country’s need for high-technology graduates,” said Johnston. “The NSERC-Nortel chair strengthens this relationship and will provide a strong talent pool of future leaders for the wireless industry in Canada.”

Nortel has a long and successful history of partnering with academic institutions. The company has investments in approximately 50 technology innovation initiatives with more than 20 major universities around the world.

Without the international pressure, the Canadian government may not be committed to engage in this project for the sake of using their resources for more immediate conflicts at hand.

The Kyoto Protocol is an agreement made under the United Nations Framework Convention on Climate Change. Countries that comply with this protocol are committed to reduce their emissions of carbon dioxide and five other greenhouse gases. Canada is required to have emission levels of greenhouse gases at a reduction of 6% from 1990 levels by 2010.

Emission targets can be met several ways. The most obvious method is to effectively reduce greenhouse gas emissions with more fuel efficient cars and less coal-fired power plants. Countries can buy emission credits by buying from another country that does not emit the full maximum emission level. Countries can also earn emission credits by engaging in promoting environmentally-friendly technologies to developing nations.

POINT VS. COUNTERPOINT

Waterloo at the Toronto Gay Pride Parade?



JOHN OLAVESON
4A CIVIL

GLOW has offered to send any interested student to the Pride Parade in Toronto. I see two problems with this.

First, some of the participants in the Parade do not conceal their genitalia. Ontario has laws about such indecent exposure. Many people have issues with seeing penises hanging out for all to see. I don’t see how this has anything to do with gay pride. I see this more as a gratuitous display of men competing against one another. Whose is bigger? Who has the courage to let it hang out? No, I’m not saying that this is the motivation for Parade participants to expose themselves. I’m saying that these are the thoughts of some people in the community.

In Europe, attitudes on nudity are much different than here. Nudity is generally accepted and no one makes a fuss when they see a penis or a nipple. But we live in Ontario where standards are different. Putting oneself on display can make the wrong impression to the people that they gay community is trying to educate. Acceptance does not happen all at once. Acceptance is a slow process. Take it slow and keep your package packed up for now.

Waterloo should not send a delegation to the Pride Parade because the stigma of the parade could attach itself to Waterloo. In a time when the school’s administration is attempt-

ing to boost Waterloo’s national and international reputation, we don’t need to be known for our willingness to expose ourselves in public.

Which brings me to the second reason why Waterloo should not send a delegation to the Pride Parade. Waterloo needs to do more locally for the gay community. We know that Toronto has a gay population, but what about the gays and lesbians of Waterloo and Kitchener? To develop awareness of the local people, we need to have a local event. We need to have a KW Pride Parade. FEDs and GLOW are the best organizations to arrange such an event.

Many benefits will arise from the KW Pride Parade. First, it will increase the university’s reputation. We’ll be known as the school that organized and executed a groundbreaking event.

The KW Pride Parade can be related to or separate from the Toronto Pride Parade. Personally, I think it would be more effective if held concurrently. In either case, the KW Pride Parade can follow a different motivation than the Toronto parade. The best way to show that gays and lesbians are the same as straight people is to see them as the same. No bondage gear, no genital exposure. The KW Parade can be “clean” and show the people as people, not as sex objects.

Waterloo will gain the reputation as a tolerant school with the strength and pride to organize a diversity event that is tasteful to all members of the community while building acceptance. There is no need to go to Toronto and get involved in their shameless event.



DAN ARNOTT
3A ENVIRONMENTAL

As many of you may know, the Toronto Pride Week is an event held yearly, where people of all backgrounds come together to celebrate their diverse sexual and gender identities. A major event in this week is the Pride Parade. GLOW (Gays and Lesbians Of Waterloo) is sending a contingent this year, and the engineering Diversity director, Jeff Aho, is asking for volunteers to attend, wearing our hard hats as a sign of solidarity.

Needless to say, people are up in arms about this. The idea of Waterloo sending a contingent, much less Engineering, is enough to make many people uneasy. What kind of message is this sending about our school, our faculty? Most people think it’s something like this: “OMGZ, WATERLOO ARE TEH GHEY!!!” But instead, I see this as being consistent with Waterloo’s commendable commitment to diversity.

We all know Waterloo is a meeting place for nearly every kind of cultural, ethnic, and religious background imaginable. Usually certain cultures and religions will have one or more related clubs or organizations which try to promote awareness. The way I see it, GLOW asking Engineering to attend the Pride Parade is no different than a cultural club selling food and playing music in the SLC and offering it to everyone, a religious group holding a prayer service and inviting everyone, or the Campus Crusade for Cheese educating us on the benefits of Brie.

We may not be from that culture, we may not agree with that religion, and we might prefer Havarti to Brie, but these things are necessary to the promotion of diversity at Waterloo. We are not being forced to participate, but we are being given the opportunity.

I think the opportunity to participate in the Pride Parade could be a mind-opening experience for a lot of engineering students. As the workplace becomes more tolerant, there’s more and more of a chance that you’ll work with somebody of a different sexual orientation at some point during your career. The important thing is to see them as people, not as stereotypes. (To the Civs, Geos, and Enviros out there, this also applies to drillers). You don’t necessarily have to be queer to appreciate the spectacle, either. As a straight person, if I were to attend, not necessarily to march but even to watch, I would be showing the community that there are some tolerant people out there.

I know a lot of people in engineering will disagree with me on this, and I’ll probably get called a fag more than once. But no one’s making you do anything, they’re simply giving you the opportunity. This is just another kind of diversity. If Waterloo is to be consistent in its policy, I see no reason why the opportunity to attend the Pride Parade should be in the least bit discouraged.

Editor’s Note:

The views and opinions expressed here do not necessarily reflect those of the authors, the Iron Warrior, or the Engineering Society.

STUFF YOU SAY

Give Us Back Our Study Room!



DAN ARNOTT
3A ENVIRONMENTAL

Once again, another example of audacious bureaucracy has left Waterloo students in the lurch. This time, it's the environmental engineering students- we have recently been deprived of our fourth-year study room.

As all of you must know, the fourth-year study room is important to the identity and cohesiveness of any class. Fourth year represents the culmination of university education; fourth-year design projects are completed, the 'real world' is contemplated, and students who have known each other for four years work

together to make their last few months of school a success. The study room is integral to this kind of community. In a school as competitive as Waterloo, in terms as competitive as 4A and 4B, the study room provides a place where one can be sane, comfortable, and human.

But recently, we have been deprived of this. The Enviro study room on the first floor of DWE has been handed to the Chems without any consultation with the students who would be using it. This was done on the sly- I only realized what had happened when I saw the signs had been changed. Needless to say, I am disgusted and infuriated at such an act. This is callous disregard for student interest at its finest, and reflects very poorly indeed on the administrators who made the decision. You have mistaken a living, breathing university community for a

series of bureaucratic processes and disregarded the very people that give Waterloo life.

That's not to say the Chems deserve a study room any less than we do. But there should have been dialogue between administrators and both classes affected by the switch. I can only assume the Chems were not notified. If they had been, I certainly hope they would have had the decency to alert us of the situation.

You may think this affects only environmental engineering classes. Think again. If they took our room from us with not so much as a word, what will they take from you? You would be outraged if your study room had been appropriated without your knowledge; surely you can understand how we feel. These events by their nature threaten to pit class against class. I say we can't let that happen! If one class is wronged,

we are all wronged. We are stronger if we stand together.

The absolute outrage of this situation calls for nothing less than action. I say that all environmental engineering students at Waterloo should be satisfied with nothing less than the following:

1. The reinstatement of an environmental engineering 4th year study room, either at the previous location or a new location; and

2. a formal apology for the appropriation of the room without our knowledge.

Write letters. Send e-mails. Talk to professors, chairs, deans, anyone. Take action! Ultimately, the students at this university hold the power and always have. If we let things like this happen, we are denying ourselves the influence that is rightfully ours. We never saw it coming; your room could be next!

Everyone Wants Money

JAMES SCHOFIELD
4A COMPUTER

We all look forward to the day we graduate from this school, marching across the stage to receive a piece of paper that marks the culmination of five years of hard work, determination, and accomplishment.

For the class of 2006, last weekend was convocation ceremony, and I had the pleasure of watching the ceremony, applauding my graduating friends, and laughing at all the dignitaries dressed in funny robes and hats. The ceremony was a chance to celebrate and reminisce, and in typical Waterloo fashion, to be prodded to donate money to the school.

Don't get me wrong - I'm generally satisfied with the education I'm getting at Waterloo, with the quality of the program, and with the career opportunities it has afforded me. I give to WEEF every term, not because I've been brainwashed into believing that "WEEF is Good", but because I see the benefit it gives to me. But the tone of the speeches at the convocation ceremony just rubbed me the wrong way. Mike Lazaridis gave the opening address, and went on at length about our obligation - that's right, obligation - to donate back to the school.

While I certainly applaud Chancellor Lazaridis for the very generous donations he has made to Waterloo, I feel no obligation, moral or otherwise, to follow his lead. Whether I choose to donate or not is my decision to make, and I did not appreciate the blatant cash grab at a ceremony that should have been one of celebration.

It would do the university well to divert some of the time and energy they devote to fundraising exercises to investigate why students are dissatisfied with their experience here, and why students are not willing to donate. There are many things Waterloo does well, but there are equally many opportunities for improvement. One of the most pressing issues in my program is the lack of consistency in the quality of teaching. I've lost count of the number of courses I've taught myself by reading the textbook because it was more effective than sitting in a lecture with an uninterested, unintelligent instructor for 3 hours a week. Graduating students will - and do - happily make an investment back in the school when they are satisfied with the quality of education they have received. But until the university recognizes that our support is something to be earned, and not something to be expected by default, they are sure to fall well below their fundraising potential.



Terrorists Found Dwelling Within Canadian Borders

Continued from front page

arrested in a warehouse where they were lining cardboard boxes with plastic sheets to store the chemicals they had recently purchased.

Apparently, investigators were monitoring these individuals since at least January of this year. One lead came from a suitcase search from a return trip of a suspect from Pakistan yielding a suspicious note. There are also references to various phone taps of the suspects throughout 2006. This was all allowed because of Canada's Anti-terrorism Act which became law on Dec. 18, 2001. It gave police sweeping new powers, including the power to arrest people and hold them without charge for up

to 72 hours if they are suspected of planning a terrorist act. It also made it easier for police to use electronic surveillance in their investigation of suspects, hence the phone taps. Many people criticized the US version of this law, the "Patriot Act." However, it proved its value with these recent events.

The 17 suspects are all either Canadian citizens born in Canada or long time residents of Canada, so why attack fellow Canadians? Many of the suspects had hints of sympathizing with Al-Qaeda. Interviews with religious heads in the GTA who know the suspects personally claim that these individuals had unusual fundamentalism and hate towards the western culture which was mainly fuelled by frustration of the events occurring overseas. Some suspects have been charged with

wanting to hold hostages in parliament and threaten beheading until Canadian troops are withdrawn from Afghanistan and the like. Just to reiterate the events of the past few years, Canada joined the US after September 11, 2001 to remove the then-government Taliban from Afghanistan, and the Canadian presence is still there today. Contrarily, Canada refused to join the US in 2003 for the invasion of Iraq based on lack of evidence or need of excessive force. Regardless, Canada has been specifically named in one of the (supposed) Bin Laden tapes that have surfaced in the years after 9/11.

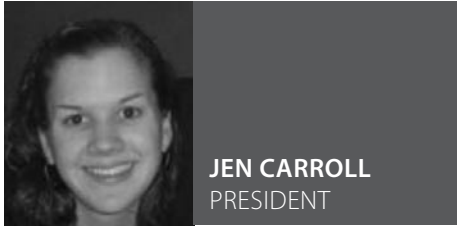
One issue that is being stressed is that this was an isolated case of unusual fundamentalism. Many religious figures in the GTA cannot emphasize enough that these few people were caught up in not properly educating themselves

about what Islam should be about, but rather focused in on extremism. The truth is, the only people who ended up becoming victims in this fiasco are Canadian Muslims. All these terrorists have achieved thus far is propagating a bad stereotype. There were reports the night after the arrest, when news broke out, of vandalism of mosques in the GTA.

After 9/11, a majority of Canadians had felt that a terrorist attack of any large degree could never happen in Canada; we simply didn't think we deserved it - so we thought. It appears that we as Canadians should no longer feel the comfort of hiding behind our own self-proclaimed "peace-keeper" image. Apparently, we as a nation are perceived more American-like than we thought.

ENGINEERING SOCIETY REPORTS

From Your EngSoc President



JEN CARROLL
PRESIDENT

Last week I attended Dean Sedra's presentation regarding the Vision 2010 plan and I'd like to encourage everyone to read the plan, think about what it means, and provide feedback about it.

The basic idea of Vision 2010 is to make the University of Waterloo the best engineering school in Canada and among the top engineering schools in North America by the year 2010. The plan outlines 31 specific strategies for accomplishing this with the overall focus being a commitment to high quality people.

I'll talk more about the plan at the next

"The basic idea of Vision 2010 is to make the University of Waterloo the best engineering school in Canada..."

EngSoc meeting but for now try to take the time to read it over at <http://www.engineering.uwaterloo.ca/Vision2010>.

Before you say to yourself "I'm graduating before 2010, I don't care about this silly plan" stop to think about the value of your degree in years to come. I'm sure that many of us chose to attend the University of Waterloo based partly upon its excellent reputation. The Vision 2010 plan is looking to the future to further improve the reputation

of our school, and ultimately to increase the value of our eventual degrees. Every spring between now and 2010 a benchmarking update on the plan will be performed. I urge all of you to read the plan, attend these updates, and hold the administration accountable for

the goals they have set. In doing so you will be helping not only all future graduates of Waterloo Engineering, but yourself as well.

A List of People Who Want Money...



CHRISTOPHER
OLEKAS
VP FINANCE

So, at the last meeting we approved the budget and also had people up presenting their cases to get money from the Engineering Society. The list of people who presented were; UW Underwater Technology Team, IEEE EMB, GNCTR, CRT, GradComm, Quake Relief Summer Program, Midnight Sun, FOC, TronsForChildren, UW CE Course.

The underwater technology team wanted an attitude sensor, the IEEE EMBS want-

ed some money to have some important people come in and talk, Great Northern Concrete Toboggan Race wanted money for helmets, Campus Response Team wanted some first aid equipment, GradComm wanted money to buy some new t-shirts to sell, Quake Relief Summer Program wanted some sponsorship for a great cause overseas, Midnight Sun wanted some soldering irons, FOC wanted money for the next leader retreat, TronsForChildren wanted some money to run a fundraiser for the child their sponsoring and UW CE Course wanted money for tapes.

Who is going to get money!? Find out at the next Engineering Society meeting this Wednesday as council will be deciding where \$2000 in donation money will go.

You stay classy San Diego.

From the Education Department



MARK
TRUCHANOWICZ
VP EDUCATION

Well it's been a long couple weeks for those writing midterms over the past couple weeks. Hopefully most of your midterms are done by now and you can relax... until finals creep up on us but let's not worry about that quite yet.

There hasn't been a whole lot going on in the Education front the past couple weeks. The first and foremost is that there will be a PDEng Rep meeting coming up and the input will be directed to the steering committee later this month.

More importantly, it's that time of

the term again, DEBT LOAD SURVEY TIME!!!! For those of you who aren't too sure what they are, it's a survey that every on-stream undergraduate student is entitled to participate in. It's conducted by the Dean's Office and it is used to give the Dean's Office an idea of the financial status of its undergraduate population regarding their education. It asks a variety of questions, and I'll be swinging by the First Year classes to give a little more information on the survey.

That being said, the surveys will be available for pick up from the Orifice on June 26th and we'll need all of them back by July 7th at 4:30 PM. The results of this survey will be published in the last issue of the Iron Warrior this term.

Watch out for my emails to the EngSoc mailing list for more details!

Catch you all on the flip side!

Yte icos gnire enig ne eht nioJ!



GREG FITZGERALD
VP EXTERNAL

Hello again, and welcome to my Hexec report.

There's not much going on, as everyone's in the midst of a whole Bunch of mIdterms, so, for your entertainment, see if you can spot the subliminal messaGes in this week's update.

Thanks for those who submitted ideas on what you'd like to hear the PEO speak abOut in a presentAtion to undergraduate students. Your input Has been takEn into consideRation, and the pre-

sentatIonS are under construction to be delivered in the fall and Winter terms.

Also, if you're like me, you're probably reAding This in Class righT now, and that Inevitable moment will come wheN you finish the Iron Warrior and have nothinG left to read, well fear not - the new Engineering Dimensions magazine is out, and is readilY available in the Orifice On the magazine rack. Pick it up, give it a read, yoU might just learn something about professional engineering in Ontario you didn't know before.

That's all for now, tune in next time for a summary of the escapades of eight Waterloo Engineering delegates who will have attended the ESSCO Annual General Meeting at the University of Western Ontario.

MOT P**5 Deadline

WILL EVANS
P**5 DIRECTOR

Tuesday June 20.

MOT is fast approaching, and that means it's time to find out which is the best class so far this term. In order to have the points tallied by MOT, the deadline for P**5 submissions will be 4:30 PM

There will be points for classes who submit before the deadline. If you need some help with what you can get points for, there's a good list on the ENGSOC website <http://engsoc.uwaterloo.ca/www/p5.php>. Email all submissions to bsoc_p5@gmail.com.

A Ton of Fun in the Sun Now That Midterms are Done



ADAM NEALE
VP INTERNAL

So come on out and celebrate an all round silly good time, and then express your artistic talents during arts week running all week from June 26 - June 30. Events will be run at lunch in and around the CPH foyer at lunch. Also, be sure to keep an eye out for posters going up around the engineering buildings. As directors get out of midterm mode and into fun-midterms-

Hey, hey, hey Eng Soc!

Now that midterms are over with, it's time to emerge from the library, or basement apartment, or backroom of the Orifice (wherever you bury yourself for studying) and enjoy some of that sweet, sweet spring term! We have a whole bunch of events lined up for you to get outside, get a tan, and get silly!

First off, the EngSoc family photo is taking place at the end of the 4th EngSoc meeting of the term on June 21. The meeting starts at 5:30 and the photo will be taking place around 6:30 or 7:00. The family photo was an idea started in the 60's and 70's where Engineering Society members would get together and have their picture taken to remember the great times that they spent together. The photo idea died off around the early 90's, but we're bringing it back for this great looking group of people in the spring 2006 term. So I strongly encourage everyone interested and involved in EngSoc to come out to meeting number four and share in the memories. It is also rumoured that the TOOL will be making an appearance at the meeting.

MOT is coming up on Friday June 23.

"It is also rumoured that the TOOL will be making an appearance"

are-over mode, they will be planning great events like beach days, golf tournament, and Canada Day celebrations.

That's all for me for now. Have a good one, EngSoc!

ENGINEERING
SOCIETY



Did you know you can earn valuable P**5 points for volunteering time at the C&D? Email Mary Bland at mbland@gmail.com to schedule your shift.

ENGINEERING NEWS

Systems Design Students Find New Solutions to Old Problems

TANEEM TALUKDAR
3A SYSTEMS DESIGN

One of the key components of the Systems Design engineering undergraduate program is the design project course. First introduced in the 1A term, and then conducted every term from 3A onwards, this course allows students to develop a rigorous design methodology through creative design challenges.

This term, 3A Syde students have been challenged to develop product concept prototypes that creatively address living challenges faced by senior citizens. This is a term-long project that introduces several key design steps that leads to identifying a mission statement and developing a framework to reconcile user needs, product requirements, design constraints and satisfactory performance metrics.

The given topic is kept deliberately broad and very few restrictions are made



on the type of solution developed. This means that the range of products being developed is broad. There is a team tackling the problems faced by senior users suffering from age-onset blindness (they're developing an mp3 player with a sound-feedback augmented navigation system). Another is working on addressing problems seniors face from their reduced ability to lift objects. A third is working on a product to help senior users who need to take a variety of pills on a regular basis.

Formal checkpoint progress reports and design critiques are used to evaluate the efforts of every team. The critiques, which are short presentations given by each team to the whole class, allow groups to sell their concept ideas and collect peer feedback on their efforts.

By the end of the term teams are expected to have developed concept prototypes. There will be an open exhibition held where these are explained and demonstrated.

Mechatronics Department Report

DAVE MIKA
3A MECHATRONICS

The trend of Mechatronics students pursuing international work and study opportunities has been steadily growing over the past few terms. Whether in the form of exchanges to international universities, working overseas, or simply taking a holiday between terms, Trons have been adding a global flavour to their time at Waterloo.

The advantages of pursuing a term abroad are almost too many to count. Not only does it allow a student to see how engineering practices and methodologies vary around the world, it also serves as a way to spice up an academic career with a bit of travelling and adventure. Spending some time in another country can easily become a life changing experience, especially when you consider the opportunities to learn a new language, gain exposure to a new culture and make new friends.

When it comes to past work terms, Trons have been found working all over the world. Even in its infancy, the Mechatronics program has seen many students branching out of the typical southern

Ontario job market to take positions across North America and even in countries as diverse as England, Germany, Japan and New Zealand.

Another exciting opportunity comes in the form of the International Industrial

Training Program (IITP) where a group of students spend eight weeks at the Thapar Institute of Engineering and Technology in India. The IITP focuses on giving students with minimal experience in manufacturing the opportunity to gain hands on experience with skills such as welding, machining, metrology and CAD. More information on the IITP can be found online at (<http://www.itp.uwaterloo.ca/>).

For any students who are interested in looking into studying or working abroad, there is a whole host of resources available. If you're interested in studying at one of the many universities in exchange partnerships with Waterloo, check out the international exchange board located just outside the orifice to see what opportunities are available. If a work opportunity is more your style then head to the international co-op section of the CECS website which gives contacts and detailed steps for finding a job in another country.

"Spending some time in another country can easily become a life changing experience, especially when you consider the opportunities to learn a new language, gain exposure to a new culture and make new friends."

ECE Chair Meets with Undergrad Students

HAROUT MANOUGIAN
3A ELECTRICAL

On May 30, 2006, Professor Catherine Rosenberg, the Chair of the Department of Electrical & Computer Engineering, held a Town Hall Meeting with electrical and computer students and faculty members. During the forty-five minute session, she updated the audience on various aspects of the department's activities.

First off, many faculty members and staff received various awards, recently. Prof. Bill Bishop was the recipient of the James Field ECE Distinguished Teaching Award. The ECE Distinguished Research Award went to Prof. Pin-Han Ho. Phil Regier received the ECE Distinguished Technical Staff Award. The ECE Distinguished Administrative Staff Award was awarded to Wendy Stoneman. Also, Prof. Aplevich has become the Associate Dean for Cooperative Education.

Many students also received recognition for their outstanding achievements. Mohammad Maymandi-Nejad, a Ph.D. candidate, was presented the 2005 Strategic Microelectronics Council Industrial Collaboration Award for his project "A Wireless Bio-Implantable Device for Monitoring Blood Pressure of Transgenic Mice." Dr. Lin Cai was rewarded for her Outstanding Achievement in Graduate Studies. She is now an Assistant Professor at the University of Victoria. Jennifer Marshall received the Dr. M. Chandrashekar Memorial Award in Sustainable Energy. Four ECE graduate students received the Nortel Networks Institute Research Excellence Awards. Also, the recipient of the Silver Medal Award has been chosen but the winner will be announced during convocation.

Three new staff members (besides Dr. Ban, Dr. Xie, and Dr. Hesjedal, who have already started their work at Waterloo) were announced. Namely, they are Dr. M. P. Anantram, who started working with Nanoengineering staff in May, Dr. T. Veldhuisen, who will start this month in Software Engineering, and Dr. D. Nairn, who works with circuits and will start in August. Dr. Rosenberg also announced the

resignation of one of ECE's faculty members, Prof. K. T. Wong. The department is in the middle of a major growth period and will hire 24.5 new faculty by 2010, bringing the total to 92.

The Chair also commented on the success of the Fourth Year Design Symposium, which was held last fall. The event was covered by the Discovery Channel and can still be accessed on their website.

Changes that most students have already experienced included the removal of the Work Term Report Checklist from the marking process. This formatting checklist had caused much grief for students who had to rebind their reports for minor formatting errors.

Social Events that are coming up include a Top of the Class Dinner, for which invitations will be sent out to the top students of the 4A class. Also, the 4A BBQ will be held on June 20 for all seniors to attend. Lastly, the Graduate Studies office will be holding an open house on June 28. Attendees will be invited to learn how to submit NSERC or OGS applications and the various research work that professors are currently working on. Pizza will be served.

TAs and lab instructors will now be evaluated by students using a web-based system. Results from these surveys will direct staff when deciding whether or not to rehire current teaching assistants. The results from the first survey in Winter 2006 showed that lab instructors were uniformly well rated. The survey recommended that 9 particular TAs be rehired, regardless of the number of past TA-ships held; whereas, five others were not to be hired again. The system can be accessed by clicking on "ECE Survey Online" at <https://ecewo.uwaterloo.ca> but is not yet active for the spring term.

An exciting announcement was that two new buildings are being planned. They are the Quantum Nanoengineering building and a new Engineering building. Plans are still in their initial stages, however.

Nearly everyone in attendance was pleased with the direction that they saw the ECE department was heading and was thankful that Prof. Rosenberg took the time to update them in person.

Racing to End Poverty

CRISTINA RANDALL
EWB WATERLOO

...or as this past weekend saw, towards the Millennium Development Goals (MDGs).

Students gallivanted about campus during warrior weekend on a race to the MDGs, an event hosted by Engineers Without Borders and followed by a BBQ. Students were given a series of tasks to complete which tested their knowledge of development related issues.

So, let us examine these issues. Back in 2000, 191 United Nations member states set out eight goals to achieve by the year 2015.

1) Eradicating extreme poverty and hunger, that is reducing by half the proportion of people living on less than a dollar a day and also those suffering from hunger.

2) Achieving universal primary education includes efforts to ensure that all boys and girls remain in school and receive high-quality primary schooling, undisturbed by the influences of political strife, war, and societal disparities.

3) Promoting gender equality and empow-

ering women, tied closely to the second goal.

4) Reducing child mortality, this is targeted at reducing the number of children under five who die every year by two thirds.

5) Improving maternal health, by three quarters.

6) Halt and reverse the spread of, among other diseases, HIV/AIDS and malaria.

7) Ensuring environmental sustainability, addressing this frequently quoted term would mean reducing the loss of our environmental resources and integrating such principles and practice into national policy, increasing access to safe drinking water.

8) And lastly, developing a global partnership for development. This deals strongly with debt problems through national and international measures, with the transactions and relationships we make and break as nations, drug accessibility in developing regions, and includes a commitment to proper governance and to the reduction of absolute poverty.

These are the Millennium Development Goals and they are what you were racing for.

ENGINEERING NEWS

CECS Helps You Get a Job ... Well Almost

Tuesday July 4th
Career Interest Assessment Part 2

Two session workshop: Complete the Strong Interest Inventory in the first session, then return for a second session to find out how your interests relate to specific career opportunities.

NOTE: In order to complete your registration for this workshop, payment of a \$10.00 materials fee is required. Please go to Career Services, TC 1214, to arrange for this payment. Cash, debit or credit cards (Mastercard and Visa) are accepted.
TC 1112 1:30pm-3:00pm

Interview Skills: Preparing for Questions
Discuss and learn from taped excerpts of actual interviews.

NOTE: Since the activities included in this workshop build on the material presented in the new online Interview Skills module of the Career Development eManual, you will need to complete the Interview Skills online module as a first step before registering for this face-to-face workshop. To access the module, go to cdm.uwaterloo.ca and select the UW student version of the Career Development eManual (in ACE).
TC 1208 3:30-4:30pm

Wednesday July 5th

Exploring Your Personality Type Part 1
Two session workshop: After completing the Myers-Briggs Type Indicator online, attend the first session to learn about your personality type and preferences for learning and decision making. In the second session, discover how to apply your MBTI type to explore potential career areas. Please sign up for both sessions.

NOTE: In order to complete your registration for this workshop, payment of an \$18.00 materials fee is required. Please go to Career Services, TC 1214, to arrange for this payment a minimum of seven days prior to the workshop date. Cash, debit

or credit cards (Mastercard and Visa) are accepted. Once fully registered, you will be given information regarding completion of the online instrument.
TC 1112 3:30pm-5:00pm

Successfully Negotiating Job Offers
Increase the odds of getting what you want when negotiating salary and other details related to the job offer. Geared towards graduating students.
TC 1208 3:30pm-4:30pm

Thursday, July 6th

Career Interest Assessment Part 1
Two session workshop: Complete the Strong Interest Inventory in the first session, then return for a second session to find out how your interests relate to specific career opportunities. Please sign up for both sessions.

NOTE: In order to complete your registration for this workshop, payment of a \$10.00 materials fee is required. Please go to Career Services, TC 1214, to arrange for this payment. Cash, debit or credit cards (Mastercard and Visa) are accepted.
TC 1112 10:00am-11:00am

Interview Skills: Selling Your Skills
Do not stop at the fundamentals; you must also prove your skills in the interview. Here is your opportunity to practice and improve.

NOTE: Since the activities included in this workshop build on the material presented in the new online Interview Skills module of the Career Development eManual, you will need to complete the Interview Skills online module as a first step before registering for this face-to-face workshop. To access the module, go to cdm.uwaterloo.ca and select the UW student version of the Career Development eManual (in ACE).
TC 1208 3:30pm-5:30pm

Monday July 10th

Work Search Strategies: Special Session for International Students

International students will learn the best approach to search for jobs in Canada after graduation from UW, including visa requirements.
TC 1208 4:30pm-6:00pm

Tuesday July 11th

Working effectively in another culture: What does it take?

Explore the impact of culture and intercultural communication on the work environment and find strategies for success in a different work culture. Geared towards students who will go abroad to work and international students who want to work in Canada.
TC 1208 4:30pm-6:00pm

Work Search Strategies

Practise networking and other strategies in order to increase the efficiency of your job search. Since the activities of this workshop build on the new online Work Search module of the Career Development E-manual, you will need to complete the Work Search online module as a first step before registering for this face-to-face workshop. To access it, go to cdm.uwaterloo.ca and select the UW student version of the Career Development eManual (in ACE).
TC 1208 2:30pm-4:00pm

Wednesday July 12th

Exploring Your Personality Type Part 2
Two session workshop: After completing the Myers-Briggs Type Indicator online, attend the first session to learn about your personality type and preferences for learning and decision making. In the second

session, discover how to apply your MBTI type to explore potential career areas.

NOTE: In order to complete your registration for this workshop, payment of an \$18.00 materials fee is required. Please go to Career Services, TC 1214, to arrange for this payment a minimum of seven days prior to the workshop date. Cash, debit or credit cards (Mastercard and Visa) are accepted. Once fully registered, you will be given information regarding completion of the online instrument.
TC 1112 3:30pm-5:00pm

Business Etiquette and Professionalism
Proper etiquette is crucial to a successful job search- and to your career. This workshop will cover proper dining etiquette, as well as appropriate behaviour during interviews, employer receptions, and other network opportunities.
TC 1208 2:30pm-3:30pm

Thursday July 13th

Career Interest Assessment Part 2
Two session workshop: Complete the Strong Interest Inventory in the first session, then return for a second session to find out how your interests relate to specific career opportunities.

NOTE: In order to complete your registration for this workshop, payment of a \$10.00 materials fee is required. Please go to Career Services, TC 1214, to arrange for this payment. Cash, debit or credit cards (Mastercard and Visa) are accepted.
TC 1112 10:00am-11:30am

Thursday July 20th

Getting a U.S. Work Permit
Learn from Nina Junciewicz, a U.S. immigration attorney, about options available to graduation.
TC 1208 4:30pm-6:00pm

Give Away Textbooks! (and then eat pancakes to feel better about it)

KATELYN POYNTZ
3A SYSTEMS DESIGN

Well, it's the summer time, and no one really wants to study, so I have a solution for you. You can give away your textbooks! And while you are giving away your textbooks, you can snack on some pancakes!

The month of June has been a busy one for the Charities Directors and I just wanted to give a quick shout out to thank all of the people who have come out to support the charity events. For those who missed these awesome events, read on, so I can explain to you what you have missed and what you have to look forward to!

First off, we have the all famous Pancake Fridays. There have been two Pancake Fridays this term, both of which were a success. Last time we even had chocolate chips! For all the pancake fans out there, do not worry, because we will be holding two more Pancake Fridays this term, one of them being this Friday! For \$2 you can get 3 lovely pancakes, with or without chocolate chips, and all of the proceeds go to "Breakfast for Learning." This is a charity that helps to provide proper breakfast nutrition for

children in elementary schools. If you want to learn more about it you can visit their website at <http://www.breakfastforlearning.ca/english/index.html>.

The next event which is happening this week is the textbook drive! Tanzania is building the first accredited university in their region and they need textbooks! So for all those textbooks where the edition was changed and you can't sell the textbook, you can stop using it as a doorstep and give it to us so we can send it overseas to Tanzania. For each textbook that you donate you get entered into a raffle for a chance to win a gift certificate to the University of Waterloo Bookstore. If you don't have any textbooks you can still enter the raffle, tickets are 1 for \$2 or 3 for \$5. All of the money will go towards helping to ship the textbooks overseas. This is a really cool project and it is a great cause to contribute to.

That is it for now, but everyone keep your eyes peeled and your ears open because there will be more charities events coming up for the month of July! All of us Charities Directors are excited and you should be too! Keep it cool...

Sincerely the Charity Directors,
Erica Waugh, Jessica Howcroft, Ken Smith and Katelyn Poyntz

Tool Rolls in for a 3-Pointer

JOE VANDERLAAN
3A ELECTRICAL

If you didn't make it out to wheelchair basketball on June 4th, then you missed out on a good time. The two teams, 'Waterloo Employed' and 'Team DDC', battled fiercely all morning. It was an epic battle resulting in some sore hands (for those who didn't already have strong calluses... *cough*... Adam Neale... *cough*), bruised lower backs, and upset tummies from eating too much candy. Team Waterloo Employed came out as the victor winning two out of the three games. After the tournament the players were honoured by the appearance of

a special visitor...that's right, the Tool itself came out to congratulate the winning team.

This event is not only fun but also raises money for the Brantford participation house, a non-profit organization that serves the needs of adults with physical disabilities. We would also like to acknowledge and thank the Toronto Spitfires organization for lending us the wheelchairs for the event.

So if you enjoy trying new sports, hanging out with the Tool, and supporting people in need then I urge you to come out next term for the next wheelchair basketball tournament. It's a guaranteed good time.

Writers of the World, Unite!

the **IRON WARRIOR**
Or at least Writers of UW Eng. And poets. And artists. And
Everyone has something to say. So say it through the Iron Warrior.
Join a friendly team, help with editing, layout and everything else!
Meetings every Thursday at 11:30 in CPH 1329B

SPORTS FEATURES

The World's Toughest Bicycle Race



PHILIP NEWMAN
3A SYSTEMS DESIGN

The 15th annual Race Across America is possibly the most grueling test of human stamina and perseverance. The 4500km race challenges ultra-cyclists to get from the west to the east coast as quickly as possible. It's projected that the fastest cyclist to finish will do this in 7-9 days. That is an average of roughly 500km/day.

The riders bike day and night, eating, changing their clothes and performing

personal hygiene activities in the saddle. It is estimated that the key players in the race will sleep a total of approximately 10 hours over the entire race. The goal is simple, get to the Atlantic as soon as possible. When asked why they are racing, the answers of the cyclist were similar to the answers mountaineers would give when they are asked why they climb Everest: because it's there. Twenty-nine individual racers including two women and several teams are attempting the race this year. One of the teams is doing the race on hand-cycles. Among the racers is Kevin Wallace of Mississauga who is one of the favorites to win. He is racing to raise money for cancer.

For up to the minute race information, see www.raceacrossamerica.com.



GABRIEL CHAN
3A SYSTEMS DESIGN

World Cup 2006 Tournament Schedule

From Thursday 22 June to Sunday 9 July

**All times shown in the local 24-hour time; Germany is six hours ahead of Ontario.

THURSDAY 22 JUNE

GROUP E
Czech Republic v Italy (1500)
Ghana v USA (1500)

GROUP F
Japan v Brazil (2000)
Croatia v Australia (2000)

FRIDAY 23 JUNE

GROUP H
Ukraine v Tunisia (1500)
Saudi Arabia v Spain (1500)

GROUP G
Switzerland v South Korea (2000)
Togo v France (2000)

SATURDAY 24 JUNE

Second round match one
WINNER A v RUNNER-UP B (1600)

Second round match two
WINNER C v RUNNER-UP D (2000)

SUNDAY 25 JUNE

Second round match three
WINNER B v RUNNER-UP A (1600)

Second round match four
WINNER D v RUNNER-UP C (2000)

MONDAY 26 JUNE

Second round match five
WINNER E v RUNNER-UP F (1600)

Second round match six
WINNER G v RUNNER-UP H (2000)

TUESDAY 27 JUNE

Second round match seven
WINNER F v RUNNER-UP E (1600)

TUESDAY 27 JUNE

Second round match eight
WINNER H v RUNNER-UP G (2000)

FRIDAY 30 JUNE

Quarter-final one
WINNERS MATCHES ONE v TWO
(1600)

Quarter-final two
WINNERS MATCHES FIVE v SIX
(2000)

SATURDAY 1 JULY

Quarter-final three
WINNERS MATCHES THREE v FOUR
(1600)

Quarter-final four
WINNERS MATCHES SEVEN v EIGHT
(2000)

TUESDAY 4 JULY

Semi-final one
WINNER Q/F 1 v WINNER Q/F 2
(2000)

WEDNESDAY 5 JULY

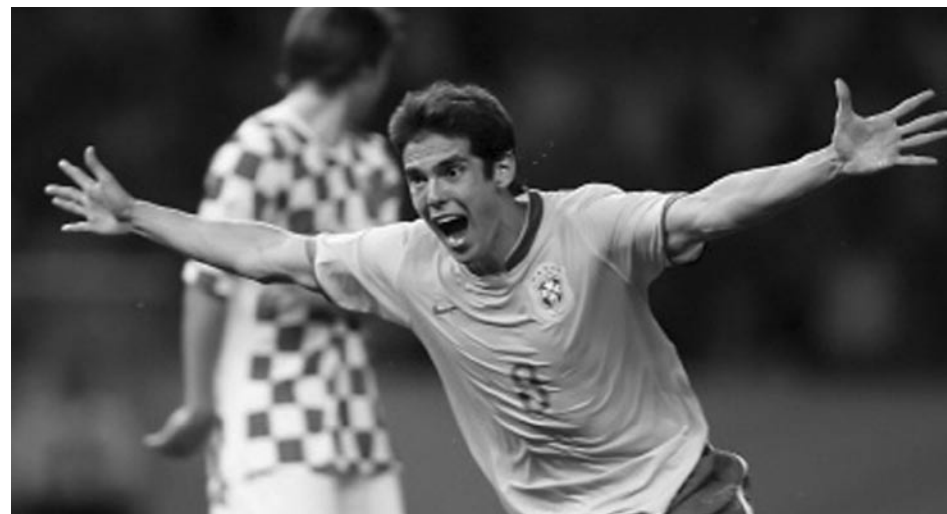
Semi-final two
WINNER Q/F 3 v WINNER Q/F 4
(2000)

SATURDAY 8 JULY

Third/fourth play-off
SEMI-FINAL LOSERS (2000)

SUNDAY 9 JULY

World Cup final
SEMI-FINAL WINNERS (1900)



ARTS & ENTERTAINMENT

Album Review: 'The Big Picture' by The Salads

DAN ARNOTT
3A ENVIRONMENTAL

Canadian party-rock band The Salads are only on their second full-length album, but they've paid enough dues to make whatever kind of record they damn well please. After over ten years as professional musicians, two EPs and their successful debut LP 'Fold A to B', their new album 'The Big Picture' reflects that philosophy.

The Salads, probably best known for hits 'Get Loose', 'The Roth Kung Fu' and 'Today Is Your Lucky Day', have changed their sound and style yet again for this album. While retaining punk, ska, soul, metal and hip-hop influences from earlier albums, the sound on 'The Big Picture' is a lot harder to pin down. Each song is different, but all of them display a depth of songwriting not seen as clearly on earlier albums.

The subject matter on this album is definitely different than the last one. Instead of singing about getting drunk and partying (still a favourite pastime of the band, so I hear), this album is a little more serious. Topics include social justice, drug abuse, loss of life and friendships, and even aging. The first track, 'Growing Up', is the rant of a band who knows it must eventually get old and yet retains its

youthful state of mind.

Singer Darren 'Mista D' Dumas's vocals have gotten grittier and deeper, but they're suited to the album's more melodic vocal lines. There's not as much rapping, but D's singing talent manifests itself. Each band member contributes to the song as a whole, so it never sounds like anybody's showing off, but the musical skill of the band (some of whom are actually music teachers in their spare time) can't help but show. Many songs feature guitarist Dave Ziemba busting out blistering speed-metal solos. Drummer Grant Taylor can turn solid beats into innovative grooves, best exemplified in the drum intro of 'It's Alright'. And many of the songs are held together with the ever-present bass grooves of Chuck Taylor.

The album shows the progress of a band constantly refining its sound, and this really pays off on a few tracks. 'Growing Up' starts the album with a perfect example of the band's current sound. 'The First Time' shows that the band may be a little more serious, but they've sacrificed none of their energy, as it closes with one of the finest examples of Ziemba's guitar-solo wankery ever recorded. 'Seasons', although arguably a ballad, is the kind of tune that will have you swaying back and forth, your arms around your buddies' shoulders, singing the chorus at the top of your drunken lungs. However, the real stand-out track on the album is the aptly-named 'Individual'. This song combines various obscure elements of hip-hop,

punk, funk, and metal to create a 'salad' all its own, and its jagged pace is a great example of a band functioning as a single unit. Never a missed beat. I'd blame it on studio magic, but I've seen them do it live and it's just as good.

This album will take some getting used to if you're more of a fan of their party-hardy stuff, and long-time fans may miss the hip-hop influences. But it beats making the same album over and over, and even though The Salads are 'Growing Up', 'It's Alright'.



Robotic Skin can Feel Like a Person

TANEEM TALUKDAR
3A SYSTEMS DESIGN

The journal Science recently published a paper describing a sensor that is sensitive to the texture of objects pressed against it – with a sensitivity matching the

tip of a human finger. Developed by two scientists at the University of Nebraska, the sensor achieves a resolution of about 40 microns, a level that has not been achieved previously by similar efforts.

The device essentially consists of an electrically active thin film made of layers of semiconducting nanoparticles and metals with electroluminescence properties. When pressure is applied to this film, the current flowing through it changes which changes the level of light emit-

ted. The result is that the level of light emitted by a particular region of the film is directly proportional to the pressure applied on it.

This follows news of similar work by University of Tokyo researchers last year who developed an artificial skin that was sensitive to both heat and pressure. Based on electronic circuits employing organic carbon transistors, these sensors were also reported for being relatively flexible and robust enough for repeated use.

This characteristic is shared by the device developed at the University of Nebraska.

Creators Professor Ravi Saraf and Dr. Vivek Maheshwari have suggested that the sensors can be used in medical applications. In the future a surgeon might be able to conduct minimally invasive surgery by using probes that employ these sensors. Then the sensors would be able to transmit data to the surgeon who would "feel" a particular internal region of the body that he/she is operating on.



Sandford Fleming Foundation
E2 3336, ext 4008, sff@engmail
www.eng.uwaterloo.ca/~sff

Debates

Please contact your department undergraduate office if you are interested in participating in the Sandford Fleming Debates. The winners of the faculty finals receive \$100 each and the runners-up receive \$50 each.

DATE July 10, 11 and 12
TIME 11:30 – 1:00
PLACE E2 - 3324

Finals: Friday, July 14
Noon
Outside POETS (CPH)

Refreshments will be served at the finals
Everyone is welcome

SATIRE

10 Ways to Get an Offer



CHRIS PELLETT
3A SYSTEMS DESIGN

It's already half way through the term and the first round of interviews is over. There were plenty of jobs and plenty of students but not so many matches. So for those who were unlucky enough to woo over the interviewers in the first round, here are 10 tips to help you get that offer you really want while in continuous. These are more for if you want to try going above and beyond the "I really, really, really want this job". Not all of these are guaranteed to work 100% of the time, but you can always use a subset. Or better yet, experiment! Create your own! And above all else, do what you must to show you want the job. (Note: This has little to no relation to Phil's last article)

10- Show up with a case of beer and offer your interviewer one. If they decline, keep offering them more and more ending with putting the case in their trunk.

9- Hack Jobmine...it can't be that hard, can it?

8- Bring backup. That way, if you ever have a question you can't answer you can bring in a ringer.

7- Hit on your interviewer. If you don't think they are attractive, hit harder.

6- For programming positions, proclaim your ability to get work done by cheat copying and pasting.

5- When asked "to describe yourself" answer with someone else's experiences (preferably someone with a

good story)

4- Say everything you did at your last job. Your old job has to have proof you actually violated non disclosure rules.

3- When asked about weaknesses reply you have no weaknesses and that everyone should aspire to be more like you. Make sure every question relates back to your awesomeness.

2- Relate every question to your old job. If you worked in Peterborough for a water company and are interviewing with Google User Experience, keep expressing how you can work in adverse conditions (even if they don't care).

1- Show up to your interview and give it your best shot. Remember, if all else fails, you can always go see Sheel's ***.



Automotive Review



DAN ARNOTT
3A ENVIRONMENTAL

You can keep your sports cars, your Corvettes, Vipers and Mustangs. You can keep your fancy imports, your BMWs and Jaguars and Rolls-Royces. You can even keep your gas-guzzling Hummers, Lexus sedans and over-modified Hondas. Give me a 1994 Toyota Corolla any day.

I currently drive a 1994 Corolla stick-shift named Ol' Blue, formerly driven by my father. Yes, the car has a name. It is important to name things, especially things you come to trust. And Ol' Blue is, as most Toyotas are, extremely trustworthy.

There's a lot to be said for a 1994 Corolla. Ol' Blue is great on gas- forty litres will last you for at least five hundred kilometres, more on the highway. The little four-cylinder engine provides decent acceleration if you know how to work the clutch just right, and I've been known to out-race a lot of big North American sports cars with it. (My method involves pulling up next to them and revving my engine. Since they usually can't hear it over their own, they don't realize we're racing and I manage to pull ahead easily).

Some of Ol' Blue's features, however, are non-standard for a Corolla. When I started driving it in early 2004, it came equipped with an innovative Binary Speedometer. This speedometer only displayed two speeds: 0 km/h and 110 km/h. And here's the best part- you didn't necessarily have to be going 110 for it to display 110. It was the perfect anti-cop feature: when they ask you how fast you were going, you could usually tell them with

confidence that according to your speedometer, you weren't moving at all.

Ol' Blue also has some effective 'anti-theft camouflage'. These markings, which appear to be rust spots around the front and back fenders, are really high-tech camouflage devices, designed to fool thieves into thinking your car is a piece of crap that nobody in their right mind would want to steal. It also jettisoned one of its hubcaps, apparently of its own free will, to increase this clever means of camouflage.

The best thing about this car, though, is its constant desire for self-improvement. Ol' Blue believes in life-long learning, and instead of simply getting along with what it's got, it desires something better for itself. Since I've been driving it, this self-improvement has earned Ol' Blue new front ball joints, clutch, windshield, shifter cables, speedometer and brakes. Lately, it seems dissatisfied with its current exhaust system, and is getting increasingly loud and vocal about it. I can only imagine what part Ol' Blue will become 'dissatisfied' with tomorrow.

But after twelve years and 393 000 km of driving at last count, Ol' Blue shows no signs of slowing down. It is self-sufficient, reliable, and (usually) cheap to maintain. And it's the kind of car that will take part in your adventures without questioning, no matter how ill-advised they may be. Perhaps we could all take a lesson from this fine specimen of automobile.



Booklet Review: Straight Talk About Marijuana



JENN BLACK
4A CIVIL

What do you get when you mix three cups of neon-bright graphics, a teaspoon of misleading statistics, a pinch of blah, and a dash of scolding? The recipe for Health Canada's booklet entitled "Straight Talk About Marijuana." Published in 2005, Health Canada aims to educate parents and children about marijuana and encourage them to discuss it openly as it relates to a healthy lifestyle. The booklet is divided into three sections; one for parents, one for youth, and a section to help parents and youth discuss what they read about in their respective sections.

While its goals are lofty, this booklet goes about its business in a way that sounds preachy and overly dumbed-down. The youth section sounds like it was written for six year olds. I am all for starting the discussion of serious topics with children at an early age but this crosses the line. It is easy to imagine Big Bird reading the youth section to small children as a bedtime story. I wonder if Health Canada has produced a booklet on sex education for the kindergarten set as well.

To appeal to youth, the booklet attempts to put them at ease with dis-

cussing the negative aspects of marijuana by inter-splicing the information with pictures of supposedly "cool" people living "clean" lives. Unfortunately, Health Canada is not nearly as "hip" as they think they are. The people in the pictures are romping around looking like cast-offs from an early 90s after school special. To complicate matters further, the people in the pictures are doing all these unexplainable activities such as lying in the grass in different patterns and staring intensely at the camera; most of them look like they are in fact high! It all paints a pretty conflicting picture. My favourite one is the picture of the twelve year olds showing off their cleavage.

The section of the booklet for adults is much more informative in nature. Health Canada claims that a basic understanding of the substance will make it easier to discuss it with your children. Provided is in-depth (as compared to the youth section) information on different types of marijuana, how to use it, and where to get it; heaven forbid the kids get their hands on this section. More likely, when you sit down with your kids and offer up all this marijuana knowledge you've gained they will think of you as a hypocrite that is doing it in your spare time.

A little confused? Well you have good reason. I think the method Health Canada is using here is the one when they bombard the reader with so much

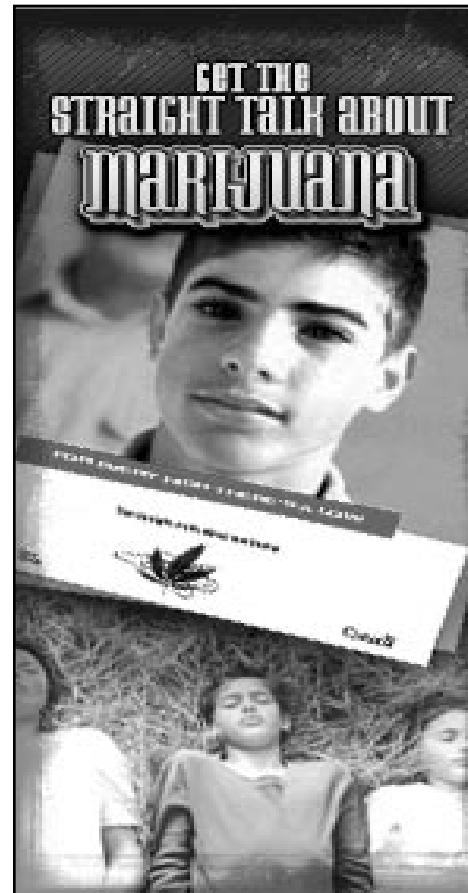
confusing information that the last thing they want to think about when they are finished reading is marijuana. Example the first: They go about disproving the old adage of "everybody does it" by dazzling the reader with the fact that less than 3% of teens smoke marijuana everyday. What about those who smoke it every other day? Example two: Changing the laws of math is also a good trick to bewilder the readers. Apparently, when mixing marijuana with alcohol, 1 + 1 does NOT equal 2... It can equal 3 or even 4 (!!!) in certain situations. Like magic! Example three: Young people use marijuana to be part of the crowd AND to be different. I see...

If you're not too confused, you might catch some of the actual useful information provided. For instance, benzopyrene, a strong carcinogen found in tobacco, may also be found in marijuana smoke. Butterflies may also contain benzopyrene, it has just never been tested. Another information tidbit imparted to the reader: If you are aiming to get really high, eat your pot rather than smoking it. Moral of the story: don't smoke butterflies, eat them.

Despite all my complaining, I was unable to put this fascinating booklet down. It was informative (gives you the website to go to if you are planning to use or buy marijuana in other countries), there were plenty of laughs, and there was a plethora of colourful

pictures.

Final Thought: Health Canada's "Straight Talk About Marijuana" is a stirring "must-read" (especially while high) for anyone interested (positive or negative) in mind-altering substances. Just remember: if you choose not to use marijuana you will not be alone, you will just be unpopular.



is

we are but metaphors in the mind of God alluding to something it itself cannot contain that it itself cannot explain abstractness is an understatement for it strives towards a concept which has no symbols

we are but metaphors of a thought

:flailing:
in between meaning and knowing for knowledge doesn't exist but then why does existence?
a wisp of being living within imagination we are impermanence or not, such things are foolish meaning never was possessed by its owner an illusion contained for restless minds for reason and understanding are self-contained repetitive, recursive, self-satisfying nonsense, sense or no sense - an axiom mingled within mysteries is some truth to some question that cannot be thought of or that cannot be dealt with

:helpless:
the circle is prisoner to itself aching to break free or struggling to vanish everything or nothing does distinction have any value left? an assertion to itself the circle remains in an eternal embrace of itself or of what it can't be isn't it all the same?
for the circle, the shape, the mind, the I what purpose is served by the distinction it cannot deny the conflict within, outside or pervading throughout and yet a gentle motion contained in a moment provides the thesis towards a beautiful symphony the tune delights within an immaterial realm subtle quantities of epiphany, enlightenment traverse the spectrum of ignorant and omniscient a distinction created what motion does my circle have?

:intrinsic:
the differences multiply words and symbols comply our thoughts, our minds cannot escape

such innate designs where would they escape to? to grasp the complexity of a subject explicitly divergent from itself given that both form the system equivalently to be ignorant and omniscient how is that achieved? are our definitions the creation of discord and harmony and reality

:dynamic:
changing to satisfy every entity's perception we are but flares of a thoughtless pursuit forgotten or not; we shouldn't be remembered would we want to remember ourselves? discord, disunited, a few with hope hope for what? for a cohesion of divergence! beckoning the end of consciousness, the end of our reality it is a new one begins, doesn't, is, isn't doesn't really matter

we are what is

Fahd Butt
3A Systems Design

engProfQuotes



"Matrices are for wussies."
- Birkett, SYDE 351

"Don't get me wrong. I love students."
- Chaudhuri, ECE 370

"One thing I cannot stand is whistling. If I hear

that whistling again, I will remove the easiest question from the midterm."
- Collins, ECE 309

Prof: "Can anyone tell me why I'm looking at this a little strange?"
Student: "Which part?"

Prof: (laughs hysterically) "You get a bonus."
- Kennings, ECE 457

Student: "Let's just do an example."
Prof: "Man, I don't want to do an example!"
- Kennings, ECE 457

"Let's say white is red."
- Khandani, ECE 316

"This Blackberry is a very good device and breaks down only if I have a couple Mooseheads and break down and break it."
- Khandani, ECE 316

"If you are interested only in the value of X, you tell Y, 'Go to hell. You can take any value you want. We don't care about you.'"
- Khandani, ECE 316

"If someone does poorly [on the midterm] but goes and magically does better on the final, we can adjust the weighting."
- Khandani, ECE 316

"So did you hear about Nortel's new Research Chair? The university would kick me out if I didn't take it."
- Khandani, ECE 316

(On the Friday of a midterm) "I feel like you today. But classes, they must continue."
-G. Cascante, CIVE 353

"And who are the winners? The super clays!"
-G. Cascante, CIVE 353

"These soil elements have an agreement. They say 'I don't deform, you don't deform'."
-G. Cascante, CIVE 353

"I prefer the term 'Drawdown Cone' because... well, because it's less depressing than 'Cone of Depression'."
-E. Cey, EARTH 458

"My father knows I'm a hydrogeologist, and yet he pays some old Ukrainian farmer fifty bucks to come out with a stick and tell him where to dig his well."
-E. Cey, EARTH 45

"Interest tables? What, are you from the sixties?"
-B. Tolson, ENVE 320



"Who's been quoting me in the Iron Warrior?"
-B. Tolson, ENVE 320

HAROUT MANOUGIAN 3A ELECTRICAL

ENGINEOKU

q		u		t			
d	t	p		u			p
f			p			l	d
t			t			p	
l	u			p		f	t
		f		l			t
u		l		q			n
n				d		t	q
				l		f	u

the Iron Inquisition

Philip Newman, 3A Systems Design

Who is going to win the World Cup?



"My grade 1 soccer team, we were the greatest team ever."
- Kevin Po, 3A Systems



"Me."
- Dan Kakneviccius, 4A Chem



"Argentina, cause I'm wearing their jersey"
-Rahim Kassam, 2B Civil



"Brazil, they're always the best"
-Tim Kuo, 3A Comp



"The Oranje"
--Colin McNaughton, 3A Chem



"Argentina, cause of their flare"
-Novair Nadir, 4A Comp



"Go Oilers"
-Erica Waugh, 2B Civil



"Me."
-Beckham, 4N Rec and Leisure Studies