

Note: This document is hosted here for archival purposes only. It does not necessarily represent the values of the Iron Warrior or Waterloo Engineering Society in the present day.

the IRON WARRIOR

THE NEWSPAPER OF THE UNIVERSITY OF WATERLOO ENGINEERING SOCIETY

<http://iwarrrior.uwaterloo.ca/>

volume 25 issue 2 | 6 February 2004



Life as a Brand Whore.

Page 5



FEDS Election Coverage!

Page 11



Iron Ring: Myth and Meaning

Page 13

“Engineer This!” Ignites Powder Keg with Victory

Michael Henheffer

4B Computer



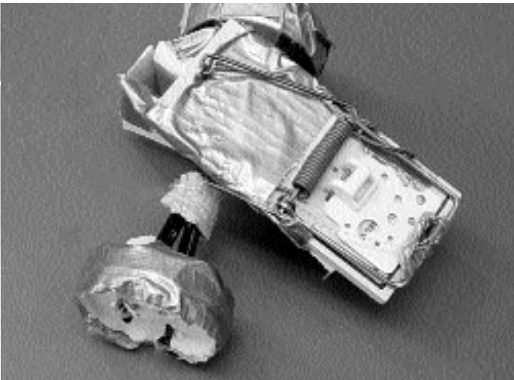
On January 30th at about 1:30 p.m., three teams set out in an attempt to win this term’s scavenger hunt, “Engineer This!” There was a team from 2A chemical (Powder Keg), 1B software (Sexy Softies) and, of course, the math team. Over the course of 24 hours, the enthusiastic participants, known as plummets, were put through many challenges in order to show their engineering pride.

Many of the favorite events from past scavenger hunts, such as “Duct tape to a wall,” were again on the schedule. New events, such as “Build a better mouse

trap,” were also added. The plummets participated in many events throughout the night, including a road trip to Stratford to perform Shakespeare scenes. Throughout the night, both the gods, known as 4th years, and the plummets were seen having a great time at all of the events.

Finally, after over 20 hours of action, everyone arrived at POETS for the final event and the closing ceremonies. The final event consisted of each team racing a toboggan made earlier in the night. At the end of the race, they had to put together a puzzle of the EngSoc logo, using puzzle pieces they earned throughout the night. After all of this, the winners were finally announced. The first place team was Powder Keg, followed by the Sexy Softies and Math.

All teams gave a great effort throughout the night and seemed to have a great time.



One Small STEP for Renewable Energy

Jeff DeLoyde
4B Environmental

Solar energy is now being harnessed to produce clean, free electricity at the University of Waterloo’s Federation Hall.

In November 2003, the 36-panel array of photovoltaic (PV) solar panels was installed on the roof of Federation Hall, the largest student-run pub in North America. Three weeks ago, the solar array went live and is capable of generating electricity for 30 to 50 years or more.

This is the first student-designed solar array on a university campus in Canada!

Now that the array is up-and-running, plans for workshops, seminars, and edu-

cational programs for elementary school children are underway.

The solar array utilizes a cutting-edge technology called “grid-tieing”. The electricity produced in a grid-tied system is fed into the building’s electrical panel to be used on-site at Federation Hall or, if there is surplus power, will be automatically directed back to the University’s utility grid and used anywhere on campus.

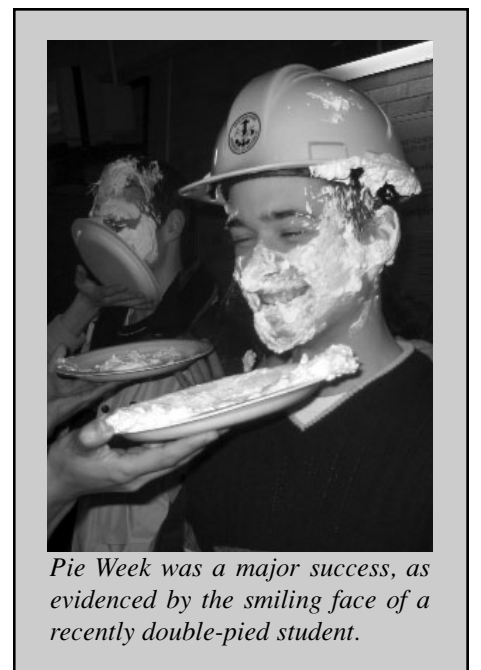
The Federation Hall solar array is a result of the efforts of the Solar Technology Education Project (S.T.E.P.), a student-led volunteer team at the University of Waterloo whose goal was to install a PV array as a demonstration project to raise awareness about renewable energies.

In addition to electricity production, the array will prevent more than 1200 kg of CO₂ a year from polluting our air by avoiding the burning of fossil fuels.

“We aimed to highlight the role of renewable energies and energy efficiency as powerful solutions to climate change,” says Jeff DeLoyde, S.T.E.P. director and fourth year environmental engineering student.

The S.T.E.P. project is only one piece of the solar boom that is taking place in Waterloo region. Waterloo will be the site of Canada’s first solar neighbourhood.

Continued on page 16. See “Powering the Region’s Clean Air Plan.”



Pie Week was a major success, as evidenced by the smiling face of a recently double-pied student.

It's amazing that the amount of news that happens in the world every day always just exactly fits the newspaper. - Jerry Seinfeld

Letter from the Editor

Jeff Henry

4B Computer

Editor-in-Chief



Even before Jean Chrétien officially turned over the reigns to him, Canadians have been wondering about Paul Martin's position on the issues, whether they are the social reforms of same-sex marriage and marijuana possession, or the situation with Health Care and the recommendations in the Romanow report. This past Monday, through the Speech from the Throne, Martin took the first step on his agenda for Canada.

In what was billed as an "ambitious agenda" and a "new agenda; a new way of working," the promises from Martin were wide-ranging. Democratic renewal through, in part, more free votes in the House of Commons kicked-off a speech worthy of a glossy document but measurable only by "the resolve and constancy by which (the goals set-out in the speech) are pursued." Expenditure reviews, and a stronger relationship with provinces followed along with a reaffirmation of the government's commitment to universal, high-quality, publicly funded health care consistent with the Canada Health Act.

All of those issues, along with the many more that were addressed at some level in the speech, are important issues to Canadians; however, there was another issue of particular relevance to students that Paul Martin chose to give prominence in the speech.

"Investing in people will be Canada's most important economic investment," is how the section on "Lifelong Learning" begins, but the big line appears next. "The Government's goal is to ensure that a lack of financial resources will not be allowed to deny, to those with the motivation and capacity, the opportunity to learn and aspire to excellence in pursuing a skilled trade, a community college diploma, or university degree."

As a brief aside, the undergraduate students of the University of Waterloo, through our Federation of Students, is a member of a government relations organization known as the Canadian Alliance of Student Associations (CASA). Now, CASA, representing 300,000 students from 19 student associations across the country, submitted a pre-budget consultation document to the Federal government in the fall entitled "Opening Doors: An Agenda for Improving Opportunity." The submission, coupled with a conference where students met with Members of Parliament and Martin, made six primary recommendations on how to achieve accessible education:

1. That the Government of Canada cre-

ates a Canadian Opportunity Grant aimed at reducing financial barriers for individuals from low-income households.

2. That the Government of Canada lowers the levels of expected parental contribution for the Canada Student Loans Program and develop an appeal mechanism for students with non-supportive parents.

3. That Canada Student Loan Living Allowances undergo an initial increase and then increase each year by a Student Price Index that takes into consideration the costs associated with being a student.

4. That the Canada Student Loans Program (CSLP) creates an application process for capital cost items such as computers.

5. That the Canada Student Loans Program implement a moderate increase in loan limits and allow for additional future increases based on a Student Price Index, which would more accurately measure the real costs incurred by students.

6. That the scope of Canada Study Grants be expanded to include full-time students with high need and an additional \$50 million dollars of annual funding should be committed to be awarded to those full-time students who have the highest demonstrated unmet need.

Getting back to the Martin vision statement – the February 2nd Speech from the Throne – the government sought to address the accessibility issue through modernizing the Canada Student Loans Program, improving "grants and loans to increase access for middle- and low-income families and their children and to reflect the rising cost of education." Loan limits would also be increased to cover the rising cost and eligible expenses will be broadened to include "the new essentials, such as computers." Family income thresholds will also be raised to prevent some middle income families from being cut-off from CSLP funding.

For those of you keeping track, the speech has so far addressed, at least in part, CASA recommendation 2, 3, 4, and 5.

The next key line, though, was the following: "But the answer to improved access must go beyond simply more generous loans, because a growing debt load poses its own limits, both psychologically and financially." Continuing on, it speaks to a new grant for low-income students in their first year of education. It also wraps up the post-secondary section by indicating the government will look at the RESP (Registered Education Savings Program) to find new ways to encourage low-income families to invest.

The first year grant hits CASA recommendation 1 and 6 in part, meaning that all six recommendations are at least partially addressed by the Martin government in his vision for this session of parliament – the vision he will likely be campaigning on in April and/or May.

In a response to the speech on Monday, CASA indicated that students were encouraged, but that much more work needs to get done. Specifically in the area of the first-year, low-income grant, the impact is not seen to be there. "Statistics show that 29 per cent of students who abandon their studies after their first year do so because they cannot afford to continue." The worry clearly is that this figure will go up as funding allows more students to start, but not to finish their education.

Referring specifically to Martin's commitment to make parental contributions more reasonable and to allow for more essentials, such as computers, to be expensed, the National Director of CASA said, "If implemented appropriately, these reforms will be welcome improvements for Canadian students." However, CASA is still concerned about the lack of a dedicated post-secondary transfer to the provinces to restore and dedicate funds to keep tuition and student debt low. Further, the acknowledgement of the RESP problem for low-income families has not demonstrated that high-income families will not profit from the program instead of the low-income families who need the resources.

For those readers wondering what any of these changes and CASA's role in recommending changes on your behalf is to you, there are two very important reasons.

The first is that the Canadian Student Loan Program is rolled into, and administered to (most of) you through the Ontario Student Assistance Program. Changes at the national level should directly affect your accessibility to the funds you need. And if that is not the case, then it is because similar reforms must be pushed for at the provincial level. In either case, though the Federal Government is not constitutionally responsible for education, sixty percent of your assessed need is funded by the federal program.

The second is that there will be a referendum on our membership in CASA. Starting after reading days, both sides will be looking for you to vote in favour or against continued membership in the organization that is our national voice. The effects that a national government relations organization can have on the accessibility of your education are not negligible, but neither is the cost invested in doing so.

After mid-terms have passed, I encourage you to listen to what both sides have to say on the membership question – it is your money and your voice, and it is time that you were heard on both.

Questions? Comments?

We welcome letters and feedback from all our readers. Please email us at:

iwarrior@engmail.uwaterloo.ca

the IRON WARRIOR

The Newspaper of the University of Waterloo Engineering Society

Editor-in-Chief
Jeff Henry

Assistant Editor
Andre Beltempo
Afsheen Khan

Photo Editor
Leanne Whiteley

Layout Editor
Katherine Chiang

Technical Editor
Jon Fishbein

Webmaster
Kevin Quan

Distribution Manager
Matthew Ho

Offstream Editor-in-Chief
John Olaveson

Staff

Ryan Bayne
Bryan Bell-Smith
Niki Czerniak
Dan Foong
Michael Henheffer
Matt Moore
Maria Simoes

Contributors

Cindy Bao
Jeff DeLoyde
Joseph Fung
Jason Griese
Kristina Hotz
Scott James
Kate Kelly
Nick Lawler
Kayley Ma
Laura Mooney
Kendra Ogden
Jen Saunders
Rajat Suri
Taneem Talukdar
Daren Toppin
Erik Wilhelm

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

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.

Mail should be addressed to The Iron Warrior, Engineering Society, CPH 1327, University of Waterloo, Waterloo, Ontario, N2L 3G1. Our phone number is (519) 888-4567 x2693. Our fax number is (519) 725-4872. E-mail can be sent to iwarrior@engmail.uwaterloo.ca



Dear LowRider: uw_LowRider@hotmail.com

Put Down Those Books and Try Some LowRiding

Dear LowReaders,

I know that a lot of you are starting to worry about midterms. Probably even more of you are worried that you'll never understand how I come up with my brilliant advice. Don't even bother trying to figure it out. Instead, see if you can pick out the correct LowRider answers from the crap, kind of like midterms. Be sure to read next issue for the correct answers!

-LR

1. Dear LowRider,

A couple of my friends and I were hanging out near the math building during the first week of classes. We waited to see some really geeky, Dungeons and Dragons type mathies, and then threw snowballs at them. It was a lot of fun, but one of the guys turned out to be my calculus TA. He doesn't recognize me. I want to apologize, but though I should get your advice first.

-Regretful Bully

Dear Regretful,

a) You should not apologize. This just goes to show that if you pick on the right person you can get away with it.

b) Bring some snowballs to your next tutorial. Do it ghetto-style by putting some rocks in them.

c) Both a) and b).

d) You should apologize. Even though

math geeks are stinkier and more antisocial than software engineers they probably have feelings.

-LR

2. Dear LowRider,

I'm repeating 2A this term. Last time around, I partied too much. The good part is that there's this super hot girl in the class – but I don't know how to get her attention. I have much thicker, coarser facial hair than the rest of the guys in the class because I'm older, so I'm pretty sure I'd have a chance if I can just strike up a conversation with her. What would you do in my situation?

-Academic Probation Romeo

Dear Romeo,

a) What do you mean, "What would I do in your situation?" LowRider would never be in this situation because she would be all over me. In fact, I'd probably have to write in asking how to get rid of this chick that's following me around all the time.

b) In my experience, facial hair alone is not enough to woo the fairer sex. For you, I suggest growing some handlebars, dyeing them yellow and then getting a matching bandana. Dark stubble is optional, but preferred.

c) Because you are repeating an academic term, I suggest you forget about this chick and focus on your studies.

d) The best way to start a conversation with a girl is to compliment her. Based on you describing her as "super hot" I suggest you tell her she has a nice ass. If you're not very confident, then work up to it by asking to borrow a pen or something first.

-LR

3. Dear LowRider,

I heard that you are a super computer genius, so hopefully you can help me out. I just bought a new computer, but suspect that the BIOS isn't reading the CMOS, or at least can't relay in information to the CPU. I made sure to buy extra DDR, even though I'm using the best DIMM available, so it's not that. I think I'm jinxed because my last computer was useless for running TCP/IP and couldn't connect to my LAN. What's the easiest way to fix my computer?

-Jargon Joe

Dear Jargon Joe,

a) I've fixed a lot of computers in my day. If you're absolutely sure that it's plugged in and switched on but it's not working, the only thing left to do is kick it. I like to aim for the side of that thing that's not the monitor (I forget the word, but you know what I mean).

b) Check the FTL86, or the EWXRTS-DF. If you don't know what those are then you don't deserve help from a super computer genius like me.

c) Admit to Jargon Joe and the readers that LowRider is not a super computer genius.

d) Don't print this letter, pretend I didn't get the email and never mention it again.

-LR

4. Dear LowRider,

My boyfriend has not returned one of my calls, emails or MSN messages for a week. I think he is also avoiding me. I don't understand what's wrong. What can I do, LowRider?

-Sad Samantha

Dear Samantha,

a) Judging from the fact that you had a boyfriend but now you don't I'm willing to guess that you are either boring, annoying, smelly, unattractive, stupid or some combination thereof. Tough luck.

b) If you are neither boring, annoying, smelly, unattractive, stupid or some combination thereof and are still lonely by the time you read this, then meet me in the Bomber Saturday night. I'll be wearing a red bandana.

c) Because UW has a low girl/guy ratio, your former boyfriend would never leave you unless he found another girl to start dating immediately. Or maybe he's now dating another guy. Whatever.

d) There is no d). The correct answer is above somewhere.

-LR

Letters To The Editor

To the Editor,

I would like to commend you for your comments on the Iron Ring Ceremony, in the last paragraph of your "Letter from the Editor," Friday January 23, 2004.

The iron ring indicates that the wearer has taken the Kipling oath, and sworn to use good engineering practices and ethical attitudes in all future engineering work. The ring does NOT indicate that an engineering degree has been achieved; indeed, it is possible that a few who take the oath and wear the ring may not receive their degrees at the end of term.

The ceremony therefore deserves respect, and I have been dismayed in the past by a few graduating students whose disrespectful attitudes and boisterous behaviour indicated that they were totally unaware of the significance of the oath which the iron ring represents. Such wilful ignorance dishonours the iron ring, and is not needed in our profession.

Sincerely,

Dr. Gordon C. Andrews,
Professional Engineer, Professor Emeritus
Department of Mechanical Engineering,
University of Waterloo
Waterloo, Ontario N2L 3G1

Dr. Andrews and Readers,

I would like to take the opportunity to thank you for your response. I believe what many students here forget is the responsibility of being a professional engineer and how the path to the profession, through the undergraduate education received here, needs to be treated with the respect it deserves.

As such, there is an article on page 13 of this issue that talks about the myth and meaning surrounding both the Iron Ring and "The Ritual of the Calling of the Engineer." The original author, Jonathan Bida, wrote the article because of the dismissive attitude towards IRC of a classmate.

Of course, all of this focus on professionalism and respect does not mean engineers should cease having a good time. Certainly the hours surrounding IRC, after four or more long years, are a time of excitement and of relief. However, as I wrote last week, there always needs to be a balance.

Jeff Henry, Editor-in-Chief
4B Computer Engineering

To the Editor,

I know its impossible to satisfy everyone, especially when it comes to scheduling events. But wasn't it possible to schedule 1) Original Aerial Photo Date, 2) Iron Ring Info Session, 3) Iron Ring Fitting, and 4) Iron Ring Ceremony not all on the same day of the week at the exact same time period? All these events are on 4 consecutive Tuesdays, from 430pm - 6pm for the most part.

There is an MSci class scheduled on Tuesdays from 430-6pm. I don't care if i miss a class, but missing the better part of four 1.5 hr classes? Wasn't it possible to balance out the classes missed by everyone by scheduling stuff on different days of the week? What's done is done, but maybe for future planning sessions, this should be taken into account.

Peter Richards
4B Civil Engineering

Tranquility Base



From left to right: David Johnston (President of the University of Waterloo), Dr. Dave Williams (Astronaut), Benjamin Sanders (President of the Waterloo Space Society)

The Canadian Student Summit on Aerospace, CSSA, which took place last weekend here at UW, was the brain wave of the Queen's University CASI student branch. The goal of this conference was to bring students together with people from industry and academic institutions to share their common interest: space and aerospace.

There are 4 main areas with which this year's conference focused on: Engineering & Technology, Medicine

& Life Sciences, Law & Administration, and Physics.

The CSSA is a tool for student delegates and industry representatives to network, learn more about opportunities available after their undergraduate or graduate degrees are complete, and to discuss a topic that is of interest to us all.

This year, Canadian Astronaut Dr. Dave Williams spoke to a large and enthusiastic crowd last Saturday morning in the Theatre of the Arts about the next general of aerospace leaders. Dr. Williams was scheduled to fly on the next flight of the shuttle Columbia.

The well-attended conference also included displays, discussions, seminars, and an evening reception.

Columns

The Space Agenda

A New Vision for the National Aeronautics and Space Administration

Andre Beltempo

3A Mechanical



On Wednesday, January 14th, President Bush made an announcement that utterly shook the National Aeronautics and Space Administration, and has set some very grand, long-term goals for the space program in general. Since the fatal loss of Columbia and her crew of seven, the entire U.S. space program has been in a state of disarray. Having lost two shuttles and their crews over 100 shuttle flights, policy makers in the White House, NASA, and some private industry groups began to seriously question the purpose, necessity and benefit of pursuing manned space flight, and NASA's goals.

For the last twenty years NASA has been in trouble. They've been mired in the construction and support of an International Space Station, which has eaten up funding without providing any return, financial or intellectual, while consistently being rolled back from a 7-man research base, to a 3-man outpost, to a two-man finger-hold in space. They've taken a shotgun-like approach to research and development, throwing multi-million dollar grants seemingly at random throughout the aerospace sector, only to curtail or switch gears at every new administration or change in policy. They have several top-notch R&D aerospace centres, which are each more interested in securing funding for their own pet projects, and are entirely dependent upon Senatorial lobbying for their continued existence. They have several aging space shuttles, which are far too large to simply act as personnel ferries, and yet are too expensive to launch cargo. Those same shuttles are maintained by a monopoly of private industry concerns that care only about securing government funding. Lastly, and most importantly, they have reminders everywhere, a picture here, a VAB there, a Saturn V model there, that once upon a time they had achieved greatness, and established a high watermark, which they would never surpass. I'm talking about the moon landings, of course. Imagine that last landing for a moment. Imagine you started working for a company, and on the first day there you knew that no matter what you did, no matter how hard you worked, no matter how high you rose, you would never be able to accomplish what had already been done 30 years ago. What the hell kind of incentive do you have to do anything?

In short, NASA has been floundering around without a purpose ever since the Apollo program was cancelled. They were told to explore the universe with a ten-cent budget. They thought the Space Station would provide them with one, but it failed. Now the Shuttle system has failed as well, and with debris and bodies in Texas, Investigative Boards and Attorneys General breathing down their necks, NASA has to look inside it's core, and answer some tough questions. Those questions were answered, and using the

President to deliver the message, NASA has rethought its reason for existence. On January 14th, President Bush, who has never indicated a preference for or against the space program, announced that he would be increasing funding to NASA by a billion dollars, and that he was empowering NASA with a bold new vision. Before cynics start hacking those statements to pieces, I'd like to ring the optimism bell for a bit. In the history of NASA, only one other President has ever backed up any claim about the space program with a red cent, and his last name was Kennedy. Admittedly, Kennedy gave them the mandate to go to the moon and a blank chequebook, underwritten by Congress and the Cold War, but Bush has supplied a goal, and a down payment.

President Bush probably has no personal thoughts about the space program whatsoever. He's got an election, two wars, and more than enough to occupy his time. Unlike other Presidents and other statements, he read the cue cards from NASA. NASA has been to their backrooms, emerged, and issued some sweeping changes within their ranks. The plan calls for the shuttles, the mainstay of U.S. manned space flight for 25 years, to be retired by 2010. They're simply too unsafe, too impractical and too expensive, eating up almost 5 billion dollars a year from NASA's 15 billion dollar budget. To replace the shuttle, a smaller, crew-only vehicle, known as the Crew Exploration Vehicle, will be developed by 2008, to fly no later than 2014. This vehicle will be designed to go to the station, but will also be designed specifically to go farther afield, such as to the moon, or to nearby asteroids, and, possibly, to Mars. The station is to be completed by 2010 with the last shuttle flight, and then basically left as an outpost for minor research. From here, the plan gets into the heady stuff: they wish to return to the Moon, no later than 2020,

possibly as early as 2015. A semi-permanent base will be established on the surface to exploit lunar resources, test and develop new technologies and eventually build and supply rockets for further exploration. Using the Moon as a springboard, and launching from her much smaller gravity well, will reduce the cost and maximize the benefit of future flights. That's the plan. It looks nice on paper, but from where is the green to pay for it going to come?

Well, for the first time since Apollo, NASA has decided that they have a goal, and to do that they've had to sacrifice. Basically they're giving up the shuttle and the station, and cutting back and restructuring their basic research funding. Over the last 20 years NASA became adept at funding basic research projects. NASA became a wonderful place for basic science and research; it's why they had an Office of Space Science. Basic research is great, it produces wonderful data, and provides a great stepping-stone for other research. Unfortunately, it also tends to be so basic that no applications are ever developed from it. With the specific goal of returning to the moon and establishing a permanent presence, all research will now be focused on developing technology to accomplish that goal. As Engineers we can all appreciate Science, but we all appreciate it much better when that science is applied to something. Scientists, after all, didn't design and build the equipment that went to the Moon. The new plan calls for NASA to get away from the Science, and go back towards the Engineering. All these sacrifices will pay dividends, and NASA will be able to pull \$11 billion over the next 5 years from these sacrifices, even before being entirely free of the Shuttle and Station. This money, along with the modest increases secured by the President will be put into development of a new manned space vehicle and new technology for exploiting the Moon. Additionally, any research to be

conducted on the Station will be done for the express purpose of extending the ability to work in reduced gravity environments.

This plan might actually work, because it is the first plan to take a graduated, long term approach, with a gradual, flexible funding curve. Every other announcement has been welcomed with open arms, only to be met with dumbfounded stares the moment the overall cost has been announced. This initial 'sticker shock' is understandable. Generally if one says: "We can get to Mars in 10 years. (Pause) We need \$500 billion dollars." the response is not favourable.

NASA has finally realized that it must show returns on small investments in order to 'earn' the right to request more. By showing that they can reach the Moon with their existing budget, NASA will show

that they are deserving of more funding, and will have also developed low cost approaches to launching to and from the Moon, not to mention approaches to utilise lunar resources. Bush was quite explicit that the promise of future funding is directly proportional to how well NASA performs when he said, "Future funding decisions will be guided by the progress that we make in achieving these goals." Out of all Federal departments in the U.S. Budget, only the Department of Defence, Department of Agriculture, and NASA are expected to receive increases during the next fiscal year.

NASA has taken one final roll of the dice, one last gamble for glory. If they succeed in meeting these goals without being sidetracked, the potential exists for a return to their glory days, even without the massive funding that went with them. If, as has happened in the past, they lose sight of the goal, and 10 years from now, a new President unveils another 'bold new vision' then it may very well spell the end of NASA as we know it, and space exploration may be left to private entrepreneurs, or the Chinese.

"NASA has taken one final roll of the dice, one last gamble for glory."

"Imagine... you knew that no matter what you did ... you would never be able to accomplish what had already been done 30 years ago?"

Keeping Warm in a UW Winter

Afsheen Khan
2A Chemical

The first weekend after school started, like many of my peers, I went home, since school had just begun and studies had not reached their full swing. 'There's no place like home. . .' That's the warm, heart-felt sensation I had, even with the falling temperatures. The weekend went by quickly and not much gets done while I am home. Soon came the time to catch the Fed Bus. Before I could step outside I was given a pack of new C-Plus Cold Tabs by my mother, who proceeded to lecture me about all the preventive measures I should take as winter progresses. With frozen thought and mind I recalled them as I wrote this article. It is important to protect the body from prolonged exposure to cold. The body's extremities, such as the ears, nose, fingers and toes, lose heat first. They are often left uncovered and exposed to extreme conditions. The

following are guidelines to help you stay healthy and enable you to enjoy winter outdoor activities.

Dress Properly – Wear clothing in layers. Wear mittens, boots and a hat to protect the hands, feet and head. During periods of high wind chill, try to cover as much exposed skin as possible.

Be Active – Walking or running can help keep warm by generating body heat.

Stay Indoors – When it is exceptionally cold, avoiding spending long periods of time outdoors.

Drink Hot Liquids – Warm drinks such as hot chocolate help to recover and maintain the body's temperature.

Stay Dry – Wet clothes accelerate the cooling process of the body.

Watch the Forecast – Monitor the weather report for the latest weather updates. You can find them on the radio or on the UW weather station's web site, located at <http://weather.uwaterloo.ca>.

Drive with Caution – Drive slowly

and carefully. Do not take any risks. Keep to main roads and turn back or seek refuge if it gets too difficult to proceed. Keep a full tank of gas and a winter travel kit in your car at all times. This kit should include a shovel, sand salt, a tow chain, flashlight, compass, warning lights or road flares, extra clothing and footwear, emergency food packs, an axe or hatchet, booster cables, an ice scraper and brush, road maps, a first-aid kit, antifreeze and blankets.

Dressed in layers, I at last reached the bus station, where I waited for the Fed Bus to arrive. A long line of UW students began to form behind me, yet there was no sign of the bus. All were standing at an unsheltered bus stop in the freezing cold with their luggage in hand. I had begun to worry, thinking of my lecture early the next morning, but finally, the bus arrived. The driver apologized for the delay due to 'expected' poor road conditions. We all had a sigh of relief and got onto the bus with numbed legs and hands.

What Not To Do On IRS

Scott James
4B Computer

I am here to share my vast knowledge and wisdom that I have gained throughout my university career. The fact that all of this knowledge is associated with drinking could have probably been gleaned from this article's title. Sharing my past drinking experiences would be a lot easier if I could remember most of what I've done, but there are a lot of blanks left by many nights of killing an already short supply of brain cells.

From the little I can remember, and from what other people have told me, I've come up with some useful tips for all who are planning to get excessively drunk at IRS:

- When you get cut-off, sometimes switching shirts with your friend can deceive the bartender.

- If the bouncers decide to give you a pin that says something like "You booze, you lose", take the embarrassment of wearing it instead of finding out what happens if you take the pin off.

- If the security staff should decide to take your Watcard for any reason, don't attack them, they'll give it back.

- After you've left the bar, beware, raccoons may appear to be large house cats.

- In the likely event you find yourself hanging from a high branch, when your sober friend says "come down," they mean "climb down," not let go!

- I find that margarine works better than butter should the need arise to grease your head up in order to slide it out from the staircase railing.

- Don't follow those ducks into the river, you still can't catch them.

- Select a spice other than salt when attacking your friend's ocular area - just ask Tim, who was last seen riding a zamboni on the back page.

- If you're friends tell you to go hit on that hot girl, and you think you're doing well, make sure it's not a snowman first.

- Keeping your wallet and keys in a pocket with a zipper seems only prudent, since you'll probably find yourself upside down at some point during the night.

- Don't try to hop fences because it never turns out well.

- If you finally do make it home, remember to only puke in the dryer if the washing machine is already taken. This makes cleaning the lint trap easier the next day.

Finally, if you're a computer engineer and your seven-segment display is reading 2h, then you're not drunk; you're just me sober. Simply flip the board upside down and it will read the proper value of 42.

La revue **PROJECT** Magazine

WRITERS WANTED!

Project Magazine, Canada's only non profit engineering student magazine, is looking for articles for its upcoming April 2004 issue. Interested contributors wishing to submit articles relevant to Canadian engineering students should send an email to: creative@promag.cfes.ca or visit www.promag.cfes.ca

engineered with you in mind
www.promag.cfes.ca

An Unsuspecting Victim of Sony Style

Joseph Fung

3B Computer

While in high school, I'd feel smug about my decision to not succumb to peer pressure - my decision to not be a brand whore. I'd look at my peers, and feel satisfied that I didn't need to wear Tommy Hilfiger to be comfortable with myself, that I didn't need a Fubu jacket to be respected by other students and that I didn't need Nike to be like Mike. I was proud of not being one of "them."

It was with great surprise and great chagrin that now, five years later, I've recognized that I've yielded to that pressure I used to so enthusiastically scorn. I am a brand whore.

When I was shopping for a laptop several years ago, I purchased a Sony Vaio. I was convinced that my decision was based on the fact that Sony's machines had superior multimedia capabilities, that Sony used high-grade parts and that Sony had better media integration (at the time, it was the only laptop that had a built-in digital media reader). Feeling confident in my decision, I've used this machine for the last two years. This article is being written on it.

When I was shopping for a digital camera, I gravitated towards the Sony Cybershot line. The prices seemed comparable to other brands, the cameras could all record digital audio and video, and most of all, the Memory Stick media could plug right into my laptop - meaning no cables were needed.

"I can no longer deny it, the truth is staring me straight in the eye - I am a Sony Whore"



Last year I decided that I needed a portable audio device. I was doing a lot of walking to and from work, a lot of flying and, in general, a lot of waiting. After balancing the pros and cons of the options available - CD players, flash-memory MP3 players, Apple i-Pod and Mini Disk players - I decided on a Sony Mini Disk player because of its superior battery life.

Just before Christmas I lost my cell-phone. Although I used to be on Fido's pay-as-you-go service, I realized that my cell-phone usage was increasing and I needed to get a monthly plan. When I picked up my Sony Ericsson T226, I was sure it was only because it met my requirements: the phone had to be free, the phone could not be a flip-phone, and the phone could not have an external antenna. The fact that it

was a Sony product was pure coincidence. Really.

The step down this long road of vice was that I recently acquired a PDA. I needed something that had a bright screen, something that had a scheduler, and something that could maintain my contact list - that was it. I ended up purchasing a Sony TJ25 running Palm OS 5. My reasons (or so I convinced myself): it was slim, the screen

was large, it met my other requirements, and best of all - it had a Memory Stick expansion slot.

Every step along the way I've reassured myself that my decisions have been based on the technical merits of Sony's products. I've convinced myself that I consider all brands equally. I've persuaded myself that I'm not one of "them."

Unfortunately, I can no longer deny it, the truth is staring me straight in the eye - I am a Sony whore.

Now that I can admit it, I'm comfortable with - nay, I revel in - the knowledge. Bring on the Sony products. Parade in the little robot companions, waltz by the aesthetically pleasing cases, bring me my proprietary media!

Keep your Handsprings, Canons, Toshibas and Siemens - I'm lost to the cause.

It's shameful to admit, but satisfying to declare; I am one of "them."

An Abusive Relationship with Oscar

Cindy Bao

3N Electrical

My biggest regret of the past week is that I missed the Golden Globe awards on Sunday night. By the time I realized the award ceremony was on, I was already in bed. Due to a working schedule of 7:15am to 3:30pm, I was too lazy to get back up. Yet, afterwards, I swore the same thing would not happen when the Academy Awards came around.

It was then that I realized that I have a strong attachment to Oscar, in favour of him over all the other award shows. This attachment is characterized by all the signs of an abusive relationship, including neglect, attraction, addiction, anger, and rationalization.

First of all, he has never failed to disregard my opinions and feelings, yet it never occurs to me that I should call it quits. Each year, from just before the nomination announcement through until the day after the ceremony, all the movie buzz is centered around the "woulda, coulda and shoulda" of his picks. While what I think has never been taken into consideration, the addiction really worsens the matter. Year after year, the disappointment never stopped me from going

back.

The relationship is certainly filled with a great deal of negative emotions, such as anger and jealousy. When a favourite candidate is not nominated, one simply just can't help but be sarcastic. I know it isn't fair to take out my anger on films I haven't seen, but I had made all sorts of rationalization for "Master and Commander" to be detestable, just because it's in the running for "Best Picture" instead of "Cold Mountain," which, to me, has a wonderful cast and director.

Why, you might ask, would I stay in such an unhealthy bond? Like all other relationships of the sort, it has its charms - its manipulative charms. As Oscar is notorious among movie critics (either born impartial and wise or were past victims who escaped), I am simply thrilled to find even a glimmer of hope that things are to my liking, especially now that "The Lord of the Ring" clearly deserves recognition. Some justifications on my part are required too, of course. "Well, you see, it's really hard to pick four other nominees when the statue for Best Actress has Charlize Theron written all over it already."

"The relationship is certainly filled with a great deal of negative emotions, such as anger and jealousy."

Oscar has also shown signs of improvement by taking interest in social issues these past few years. I surely gave him credit for openly fighting the discrimination against race, by recognizing two African-American actors back in 2002. This year, he overcame ageism - a common prejudice in Hollywood, and nominated both Keisha Castle-Hughes, at tender age of 13, and Diane Keaton, more than four times the age of the Whale Rider star.

Despite the positive attribute, I didn't overlook Oscar's worst fault: he failed to remain monogamous. Apparently, there are countless movie-goers world-wide struggling with the same relationship troubles with Oscar. It is the case with anyone who watches the ceremony, not just for those looking for celebrity sightings and fashion trends.

I do realize this relationship in dysfunctional at best, but compared with Sally Field's ecstatic, "You like me; you really like me," I think I am definitely in better shape. However, if you have decided that I need help anyways and are going to report the case to a social worker, could you kindly make sure he or she does not visit on the evening of Feb. 29th?

Engineering Society Executive Reports

Evaluating Your TAs

Jonathan Fishbein

**Vice President,
Education**



There is not too much to report this week on the education front so, luckily for me, this article won't be very long. One major thing that occurred in the past two weeks is Prof. Loucks' visit to EngSoc council to explain the Professional Development courses to students. Prof. Loucks gave a presentation on what these co-op courses will mean to students and then took questions from council. Unfortunately, not every class was represented at council that meeting, so if you have a question that you were unable to ask at the meeting for various reasons, please come talk to me or e-mail me your question and I will pass it on to Prof. Loucks for an answer. Towards the end of the term we will try to get Prof. Loucks to come speak again so he can give students an update on

the new developments, course descriptions and course deliverables of these Professional Development courses.

Also in education news is the possibility of TA evaluations. The idea of TA evaluations has been tossed around by the student body for some time now. There is a buzz around engineering students in Ontario to try to provide some accountability for their TAs. In a recent meeting between the Dean and the EngSoc Executive, the Dean seemed to be in favor of a system like this. Also, the academic representatives felt that this system could be implemented here at Waterloo when I presented it to them at the recent academic rep appreciation night. In order for students to implement a TA critique system a formal proposal of what the system would entail would need to be written and submitted to the Dean for approval. If anyone is interested in helping to move this idea forward, feel free to e-mail me at asoc_vpedu@engmail or come by the Orifice and speak to me in person.

That's all I have for now. See you in the next issue.

Fun With Pie and Shadows

Nick Lawler

**Vice President,
External**



One thing us engineers know how to do you right is have a good time. This is why when faced with powerful winter weather, and snow piled up to one's nasty bits, we overcome and still have great events. These past few days have showcased the second annual Weeks of Pi. This great event raised a large sum of money for two great causes, GradComm and EWB.

The past weeks also saw nine first year students, (four from A-Soc, five from B-Soc) head to UWO for the First Year Integration Conference. The weekend served as an introduction for the first years on what engineering students from across the province have in common, and how we communicate. It also served as a showcase for Western students to show

what they do best.

A few things are coming up on the calendar over the next few weeks, besides your midterms. Shadow Day sees high school aged students from across Ontario "hook up" with an engineering student (first years welcome) for a day. They will follow you around to classes, and generally learn what we have to go through on an everyday basis. It's a lot of fun, and it is a great opportunity for us to have a big impact on up and coming students.

Also, good luck must be wished to those competing in the Ontario Engineering Competition at Queen's University on the February 7th weekend. On further OEC news, at Queen's, Waterloo will be putting in a bid to host the competition in 2005. This is a major provincial event, and if successful, it will show off all the great things that UW Engineering has to offer.

Good luck on your midterms, and congratulations to all the 4th Years who will be receiving their Iron Rings on February 17th.

Getting Your WEEF On

Michael Henheffer

WEEF Director



As you should know by now, the refund period has been over for about two weeks. I'd like to take this opportunity to thank every student who made a donation to WEEF this term. Your participation is important to the continuing success of WEEF and is very much appreciated. A class-by-class breakdown of participation statistics should be ready and made available for the next issue of the Iron Warrior.

On another note, WEEF has allocated 35 000 dollars to new funding for this term. The proposal process for receiving

this money is currently under way. WEEF is now accepting proposals and will continue to do so until March 5. If there is a particular project/lab that you feel should receive funding, you can get a copy of the proposal documents at www.eng.uwaterloo.ca/~weef/proposals.html. Please remember that any student can make a proposal, as long as the proposal somehow benefits undergraduate engineering. If you are not sure if a proposal is appropriate, feel free to drop by the WEEF office during my office hours (Mondays 1:30-4:30) to check with me.

As a final note, I'd like to remind graduating students that the Plummer's Pledge campaign will be starting soon. Make sure you look out for information at the upcoming ring fitting ceremonies. I hope that many of you will choose to participate in this great program.

Goodbye Busy January

Kate Kelly

**Vice President,
Internal**



Oh no! It can't possibly be midterm time again! I mean really, come on! Not THAT much has happened since New Years!

But really, if you take a look at all the EngSoc events that have gone on in the past few weeks you can see that we've been quite busy! We've just had two EngSoc meetings in the past two weeks, as well as EngWeek and PiWeeks. If you didn't get to Pie someone you love, well you really missed out! Scunt happened last weekend, and it looks like it was a lot of

fun! This weekend is the Ontario Engineering Competition at Queen's. Sadly, the Brunny trip did not happen on the 22nd of January. If I have enough interested people we'll try to plan another one, but you have to let me know! The Canadian Student Summit on Aerospace took place last weekend. I was able to attend the public talk by astronaut Dave Williams, and it was awesome!

So, after midterms we'll be back in the swing of things with MOT, Bowling, Women In Engineering, National Engineering Week, and tons of other things, so keep an eye out for cool events. Good luck with Midterms and have a great Valentine's Day, and if you think you don't, go buy yourself a BIG box of Chocolates, (once they all go on sale of course) because that makes EVERYTHING all right!

"Budget Draft" a Success!

Rajat Suri

**Vice President,
Finance**



Your friendly neighborhood VP Finance released the much awaited "Budget Draft" to a captivated audience at the last EngSoc meeting, and boy was it a shocker. With a riveting plot, mesmerizing performances and slick editing, it is sure to be the next big thing after Harry Pothead and the Lord of the Wings.

The plot was simple at heart, but intellectually complex on the surface, with multiple layers to sift through for the audience. Basically everyone got what they wanted, since the dark and mysterious ruling party (also known as "EngSoc A") had money to burn for the winter term. The bottom line came out to be a whopping \$5 surplus, which was fairly good considering the last EngSoc draft (in Fall) showed

nothing less than a \$6000 deficit. Indeed, many of my fellow critics say that it was quite worth it. Pizza might cost \$10, photocopies might cost 10 cents, but the smiles on the Directors faces? Priceless.

Overall the draft was a solid presentation, with much humour and corny lines delivered by Rajat Suri, and a dramatic cameo by James Kunz. I thought that Laura Mooney was a little wooden and bereft of emotional expression, but it is quite understandable given her lack of experience in the acting area. It's not easy to go from pop singing to acting...just ask Mandy Moore. I will not tell you who dies at the end, but I can tell you for sure that it has something to do with Mary's Love Slave.

I hear that the sequel "The Return of the Evil Budget" has also taken place at EngSoc meeting #3 on Wed Feb 4th. However, that is in the future for me, and in the past for you. Hence, I cannot critique it just yet. But never fear! There is always next issue.

Money is good. 4 Stars.

Here's to the Fourth Years

Laura Mooney

President



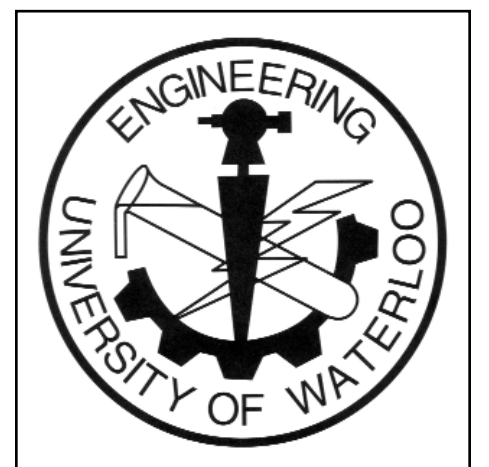
While many great things are going on right now, I think the most exciting is our bid to host the 2005 Ontario Engineering Competition (OEC 2005). A number of students from both societies have been working to put together a convincing presentation of why Waterloo deserves to host the competition and what we'll do to make the competition better.

If you'd like to join us or if you just have some thoughts about OEC, please email me at asoc_prez@engmail.uwaterloo.ca.

On an unrelated note, there is a very significant event approaching for the fourth years: IRS (the Iron Ring Stag). If you're not in fourth year, you'll very likely notice IRS as a large number of people

parade through the halls in costumes that range from the tacky to the outrageous. If you're interested in participating as a non-graduate, your best chance is to come to the GradComm auction on February 13 so a graduating class can buy you to "help" them on that day. To the fourth years, congratulations on making it through. Have a very deserved day of fun on February 17!

Good luck to all on midterms!





N
O
V
E
L
T
I
E
S

Semiformal Fun, 80's Style

Maria Simoes

4B Computer



This term's semi will be held on February 28th. It is tentatively scheduled to be held in the SCH Festival Room - however plans may change, so keep your eyes and ears peeled for more information.

Semiformal is a good way to meet new people, to impress your significant other, and most of all, to have a great time. Feeling festive? Well, then dress up for this term's 80's theme. Glam rock and big hair will abound, as will engineering staples AC/DC, Bon Jovi, and Queen.

Tickets will be made available in upcoming weeks through EngSoc in the Orifice (CPH 1327) or the CPH Foyer. For more information, as your EngSoc class rep or e-mail the semiformal directors - Kate Kelly (asoc_vpint@engmai) and Maria Simoes (mssimoes@engmail). Also, feel free to contact us if you're interested in helping out by selling tickets, making posters or decorating the hall for the event. It'll be a rockin' good time - hope to see you all there.

Tired of the winter blues? Midterms and work starting to get to you? Afraid you might forget Valentine's Day, and have an angry boyfriend/girlfriend on your hands? Well then, look no further and come on out to this term's semiformal - its fun, 80's style.

A semiformal, for those who don't know, is a termly occurrence that allows engineering students to come out and have some fun. The night usually starts out with dinner, and then progresses to an all-out dance party! People can choose to either have dinner and dance, or to just have dinner. Different ticket prices reflect these two possible options.

Charities: Food and Fun for Everyone!



Maria Simoes

4B Computer

This February, EngSoc Charities is running a Food Drive for the Kitchener-Waterloo Food Bank. This drive is somewhat "competitive". Food drive bins will be spread throughout Engineering (CPH Foyer, POETS, the Orifice and RCH basement). The front of each bin will be affixed with the names of certain well known people. The person who's bin is filled with the most amount of food BY NUMBER will have to perform a "reward" at MOT. More information will follow soon on the end "reward" and the names of the people who will "volunteer" themselves for this charitable cause - so please stay tuned. If you have any questions or suggestions, please send them to the charities directors - Mike Henheffer (mphenhf@engmail), Leanne Whiteley (lcwhitel@engmail) or Maria Simoes (mssimoes@engmail).

Where are all the Non-Fourth Years?



Leanne Whiteley

4B Civil

Dan Foong and I are the EngSoc Class Rep Advisors this term, which means that we try to ensure that all class representatives are informed of EngSoc events. We also choose a class rep winners at each EngSoc Council Meeting. Awards are given to the class reps that have the most feedback or the most impressive feedback during the class rep feedback

portion of the meeting.

At the 1st Council meeting, Mike Buczkowski and Melinda Hurd from 2A Chem were each awarded \$5 gift certificates for the C&D. Then, during the 2nd EngSoc Council Meeting, the 3A Software class reps, Sean Wells and Marc Joyce, were determined as the winners and also received \$5 gift certificates for the C&D.

Dan Foong, along with some of the EngSoc exec and other upper year students went to visit the 1st year classes to let them know about EngSoc. Despite their efforts, there still aren't representatives from each class at the EngSoc Council meetings and I don't see that

many 1st years participating in events. I also don't see that many 2nd and 3rd year students participating either. Maybe it's just that the 4th year students are hogging all the directorships or maybe the younger students don't know what EngSoc does and how much fun it can be. Either way, if you are a student who isn't graduating in the next four months and would like to start participating in EngSoc events or would like to know more about EngSoc, please email Dan Foong (dwfoong@engmail.uwaterloo.ca) or myself (lcwhitel@engmail.uwaterloo.ca). You can also check out the regularly updated EngSoc website (www.engsoc.uwaterloo.ca/www).

A 2:1 Girl v. Guy Ratio. In Engineering?



Leanne Whiteley

4B Civil

On Monday, January 26th, a dozen brave souls made their way to the Grad House for the Networking Social hosted by Women in Engineering (WIE). Despite the extremely cold weather and the food order not being placed, the event was

a success. Free non-alcoholic drink tickets were provided to all those in attendance. Side orders, like onion rings, battered mushrooms, little tacos, fries, and breaded jalapenos, were also ordered and devoured by the attendees. There were four very lucky guys that made their way to the Social and for probably the first time in their engineering life, had a 2:1 girl-guy ratio. There were only three non-fourth year students present (and one of those was a grad student).

Various discussions could be heard around the table, including a rundown on

how whiskey is made, a debate on the benefits of living on the moon, as well as a conversation about the different requirements for applying to law school.

Thank you to all those who attended the event. We look forward to seeing you and many others at the next social, which will be a Movie Night in POETS on Monday, February 23rd.

If you would like to join the WIE mailing group to find out about upcoming events, please email uw_wie-subscribe@yahoo.com or visit the WIE website www.eng.uwaterloo.ca/~w-in-eng.

Upcoming Engineering Society and Other Events

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	
8 Ontario Engineering Competition	9	10 FEDS Election	11 FEDS Election	12 FEDS Election	13	14	There will be a charity food drive throughout the week of February 23.
		Ring Fitting				Valentine's Day	
15	16	17	18	19	20	21	National Engineering Week begins on February 28 - for more details, see next page
		IRC/IRS		Reading Days	Reading Days		
22	23 Chick Flick Night	24	25 Shadow Day	26	27	28	
			EngSoc Meeting #4		MOT	Semi-Formal	

Columns



Mutant Dog Plays Poker



EngWeek was a Bust

Civils lost to Comp in Structure Building Contest

Leanne Whiteley

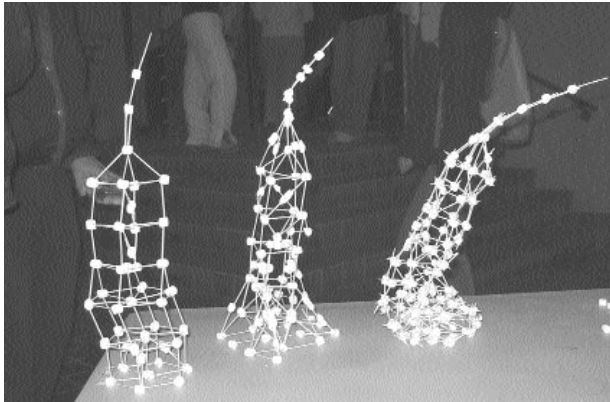
4B Civil



Believe it or not, last week was EngWeek. On Monday, there was the Tall Free Standing Structure Competition. Participants were required to build a structure built completely out of marshmallows and toothpicks. Although, there were two civil class entries, it was the computer class entry that one. Chris Taylor, 3A Civil, had a really good design, but neglected to compensate for sag. The other civil entry, built by Chris Hamm and Beau Gaudreau – both in 4B Civil – was based on pure aesthetics (or so they claimed). Chris Deck, a 4B Computer Engineering student, was the last entry of the day. Chris realized that the more material used in the

construction, the weaker the structure became and therefore, had an open-concept module design. Pictures of the sculptures can be seen below.

Tuesday was supposed to be the Chubby Bunny competition. Unfortunately, we were snowed out and no competition was held. We did however get to eat the marshmallows at the EngSoc Council meeting on Wednesday. Mmm...marshmallows. Due to a lack of communication, the EngHead event that was originally scheduled for Wednesday did not take place. Don't fret, though!



The towers: 4B Comp (left), 3A Civil (middle), 4B Civil (right)

EngHead will be re-scheduled to sometime after midterms. Unfortunately, there were already 4 things going on the day that the 3-D twister challenge was supposed to happen, including Yearbook sales, GradComm Calendar sales, the FEDS Candidate Forum, and the Armed Forces recruiting booth. Therefore, the 3-D twister challenge did not happen either. In

fact, the only other event that was scheduled and happened was Friday's Art Contest. It wasn't much of a competition, because I was the only entry.

For those of you who want to run EngWeek in future terms, might I suggest that you try to avoid having class during the lunch hour time slots. It might make things easier.



A pair of 3A Civils painstakingly construct their marshmallow free-standing structure.

National Engineering Week 2004:

How You Can Help Promote Engineering to Young Canadians

Kayley Ma

ESSCO Project Director, NEW

National Engineering Week (NEW) is a national celebration of engineering excellence. Founded in 1992, NEW is a cross-country festival of volunteer-organized events that takes place during the first week of March each year. The purpose is to raise public awareness of the importance of engineering and technology in our daily lives and to encourage young people to consider careers in engineering and technology.

One of the highlights of Engineering Week 2004 (February 28 to March 7) will be drop-in K'NEX construction workshops at science centres or children's museums all across Ontario. Junior innovators six years of age and over will have fun and learn about engineering by creating incredible structures using the popular colour-coded building toy. Right here in Kitchener, at the Waterloo Regional Children's Museum (10 King Street West), workshops will be taking place at 10 a.m. to 4 p.m. Saturday, February 28 & Saturday, March 6 as well as at 12 p.m. to 4 p.m. Sunday, February 29 & Sunday, March 7.

The NEW Ontario Steering Committee and the Engineering Student Societies' Council of Ontario cordially invite UW engineering students to be vol-

unteer workshop facilitators. This is a great opportunity to get involved in the community and share the UW engineering spirit.

In addition to seeing smiling faces and admiring eyes of young students, workshop facilitators will receive a NEW T-

shirt and one delicious lunch.

To sign-up, please visit: <http://www.engineeringweek.on.ca/2004/volunteeropportunities/index.html>.

For more information, please contact Kayley Ma, NEW director of the Engineering Student Societies' Council of

Ontario, at k2ma@engmail.uwaterloo.ca or check out the NEW website <http://www.engineeringweek.on.ca/index.html>.

UW Engineers definitely have to be part of this national celebration and can certainly help to make it the best one yet.



Help Make Fun and Learning Come Together During
Engineering Week 2004

To sign up as a volunteer workshop facilitator at Drop-in K'NEX Construction Workshops (February 28 & 29th, March 6 & 7th) at the Waterloo Regional Children's Museum, please visit <http://www.engineeringweek.on.ca/2004/volunteeropportunities/index.html>

For more information, please contact Kayley Ma, NEW Director of the Engineering Student Societies' Council of Ontario, at k2ma@engmail.uwaterloo.ca or check out the NEW website <http://www.engineeringweek.on.ca/index.html>.

IRC/IRS Information

Kristina Hotz
GradComm Co-Chair

Our day is finally here! After four and two-thirds years of hard labour it's finally time for our reward. February 17th we get our Iron Rings as part of a day of fun. You've earned it and it's time to celebrate. Iron Ring Stag (IRS) tickets went on sale on Monday the 2nd and cost \$25 dollars with shorts and \$15 dollars without. The shorts are snazzy black ones with pockets!

The day starts by dressing yourself in your very best value village attire. Wearing the brightest and gaudiest clothing you can find, head to your class breakfast running from about 8 until 10. Each class organizes their own and serves up pancakes, bacon or whatever they feel constitutes a good meal. Usually, this includes champagne and orange juice. Hence the name: the champagne breakfast.

After getting the day started on the right note, it's time to visit your favourite profs and have some good natured fun. Be sure to share the wisdom you have acquired in the past few years with the first years. When I was sitting in circuits way back in 2000, I remember some fourth years coming in and helping us learn everything we needed to know about op amps or maybe they just tried. At noon POETS opens up exclusively for 4th years. Stay there, relax, bond with your classmates and fellow, soon to be ringed, engineers. At 4 o'clock, bar service ceases.

However, Chemical, Geological, Mechanical, Systems, Enviro Chem and Enviro Civil should already be getting dressed up in their finest (read: suit and jacket) for their Iron Ring Ceremony (IRC) at 4:30. At 5:30 it's Civil, Electrical and Mechanical's turn to receive their rings. Last, but certainly not least, is the Computer Engineering class at 6:30. IRC is a very formal and serious occasion. Please treat it as such.

Once the ring is on your pinky finger it's time to head home and change back into your IRS shorts and funky clothing. At 8:30 buses start leaving the E1- cul-de-sac on route to the Wax for IRS. Buses will be making trips back and forth all night. When you come in, your funky clothes will have all of their seams cut so that when you jump onto the dance floor they'll easily be ripped off. Don't worry - people stop when they reach black clothing, so please wear something black! AND if you aren't comfortable with your peers ripping off your clothes, ask some friends to, or do it yourself, or come to IRS completely dressed in black. It's up to you and your comfort level. I can guarantee people will be at all levels of the spectrum, so don't feel bad if you arrive dressed in black. You earned it!



Cashing in on the Class of 2004 \$194.25 and Counting, and You Could Be Next

Daren Toppin
GradComm Co-Chair

Every week, GradComm holds a 50/50 draw as part of its fundraising efforts. For those who don't know, a 50/50 draw is where you purchase a ticket that gives you a chance to win half of the entire pot. Tickets are 50 cents each, 5 for \$2, or 12 for \$5. What this means is that if 20 people each buy 5 tickets, then one lucky winner will walk home with \$20, with \$20 also going to GradComm.

Two draws have been held this term. The first winner was out of the class of 2007. Mike Buczkowski, from 2A Chemical, made all of his friends, and many other ticket-holders, jealous by winning \$132.



An ecstatic Mike Buczkowski with his heaping piles of 50/50 draw cash. \$132 in winnings make Mike a very popular guy.

The second winner was Jen Saunders with a slightly smaller but still impressive \$62.25. Jen was able to purchase a year-book and still get some food in the C&D.

The 50/50 draws are held weekly, with



Jen Saunders shrugs off accusations of a rigged 50/50 draw as she shows off her newfound \$62.25 in cash.

tickets being sold in POETS from 12-4pm Thursday and Friday. The actual drawing time is 4pm Friday, unless there's a Tour de Pub, in which case the drawing time is at midnight.

GradComm Fundraising Continues

Jen Saunders
GradComm Co-Chair

First of all Gradcomm would like to thank everyone who has bought a pub-crawl shirt or pizza on Wednesdays. Fundraising remains to be done, however, so Gradcomm has a lot of fun events for everyone to get involved in.

The regular events that will continue to take place are the pizza sales on Wednesdays, 50/50 draws on Fridays and two more pub-crawls. The pizza sells fast so don't miss out. The 50/50 draws have become great successes for both the winners and Gradcomm. Past draws have had jackpots of over \$60.

Newer events are Pi Week, a trivia challenge, a cultured bonanza and steak BBQs. Pi Week already happened, and hopefully

managed to raise a lot of money for both Engineers Without Borders and GradComm.

"...the (WIE) Calendar is on sale right now. It has awesome pictures of 75 girls in engineering... After my first look... I nearly changed my sexual orientation."

The trivia challenge will be Friday Feb. 6th during the pub-crawl. Laptops will be set up in Poets with trivia. You can play for the low price of \$2 and the highest score

will win a dinner for two at East Side Mario's. The final match will be on the POETS big screen for all to see. The trivia will be provided by the game You Don't Know Jack, which is so much fun you won't want to miss out.

On March 9th the cultured bonanza will begin with wine tasting and scotch tasting the next week.

BBQ steak dinners will be announced later and are guaranteed to be a blast.

Last but not least, the Women in Engineering Calendar is on sale right now. It has awesome pictures of 75 girls in engineering and these girls are hot stuff! After my first look through the calendar I nearly changed my sexual orientation.

One calendar will remain in the office for previews or you can buy one for \$15 by contacting Eric at esduiker@engmail.uwaterloo.ca.

Plummer's Pledge: Leaving Your Mark

Michael Henheffer

Plummer's Pledge Director



I hope most graduating students have at least heard of the Plummer's Pledge campaign. This article will answer some of the more frequently asked questions concerning the pledge and the campaign. So if you have no idea what the pledge is, or you just want more information on it, read on.

What is the Plummer's Pledge campaign?

The Plummer's Pledge campaign asks graduating fourth year students to make a three-year pledge to the engineering body of their choice. Most students choose to make this pledge to WEEF.

How much money is the pledge?

The pledge is whatever amount you are comfortable with donating. The Dean's challenge for this year is a pledge of \$2004 divided any way you like, over three years.

All pledges are considered charitable donations and are tax deductible.

Where can I get more information?

Pamphlets outlining the Plummer's Pledge will be given out during the iron ring fitting on February 10. There is also more information about the pledge at <http://www.weef.uwaterloo.ca/pledge.html>.

How do I participate?

Pledge forms will be given out with the pamphlets during ring fittings. Fill them out and return them to one of the Plummer's Pledge committee heads or Alumni Affairs.

Why should I participate?

This is an easy one. There are so many good reasons to make this pledge that I cannot even list them all here. Instead I will just list some of the better ones. The major reason is to help Waterloo Engineering maintain its status as one of the best engineering programs in the world. The donations to WEEF also allow the students who follow in our footsteps to determine how to best use the money to improve their education. Moreover, since only the interest is

spent, a Plummer's Pledge to WEEF is the "gift that keeps on giving" as our donations will benefit students at UW for the rest of time.

Of course, a lot of people may think that once we are out of here, the state of the Waterloo Engineering program does not matter any more. This is a bad view to have, as, at some point in your career, the fact that you graduated from Waterloo will come into play. Potential Employer's will judge the degree based on Waterloo's reputation at the time, not based on its reputation today. So you see, it will be important for us to keep the reputation as good as it is and even try to improve it. Plus, classes before us have given lots of money that was used for our benefit, so we now have the chance to return that favor and donate for the benefit of the classes following us.

Another great reason to donate is pride in both our faculty and our school. I want to be able to say "I went to Waterloo for Engineering," and always be proud of it.

And if that is not enough motivation for you, than how about this one? Let's beat math! Math pledged more money than engineers last year for the first time since the inception of the graduating gifts. Let's make sure that doesn't happen again this year!

Columns

Changing Traditions: Out with the Old, In with the New

Dan Foong
4B Civil

The past has always made way for the future. While we try desperately to cling to old beliefs and customs, we must inevitably succumb to change. Without changes, things would stagnate and everything would become cyclical. Let's take for example the outdated "traditions" that some in the Engineering Society would try to hang onto, the last vestiges of their so-called greatness.

Let's start by taking a look at Frosh Week. The creation of the Provost Advisory Committee on Orientation (PACO) in 1997 made drastic changes to the way Orientation (Frosh) Week events were run. First of all, PACO cleared the table of all derogatory or demeaning events. For one old University of Waterloo Engineering Tradition, first year students were required to run through a muddy obstacle course in order to earn their yellow hard hats. Although it was not mandatory to run through the mud pit to earn their hard hat if they chose not to, not many Frosh felt comfortable exercising that option. Think about how you would feel if all of the people that you had just met were totally pumped about going through a mud pit? Although we won't directly admit it, peer pressure stills plays a major role in many of the Orientation Week events.

You also have to consider that some first year students will be coming from small towns and not have many close friends at the University prior to Frosh week; they are relying on Frosh Week to make the friends that they will keep throughout their university careers. During my Frosh Week (1999)

I came to Waterloo knowing only 2 people; one of them is writing the other side of this article, so I took full advantage of the week to meet new people and to create new friendships. I rarely speak with some of the people that I met then, but I met so many that I can't really remember everyone.

Getting back to my point, put into perspective what has been done with Orientation Week over the years since PACO's inception in 1997. We've had to modify the events so that they would appeal to the majority of the first year students, as opposed to running events that appealed to a few hardcore frosh and that "spirit" rubbed off on their fellow first years. Yes, there have been difficulties in creating new events that are "all-inclusive," but that comes with any new change. Since Orientation week is only run once a year, you can only attempt to fix the mistakes that were made from the years past, and hope that things go right. We've done away with events that focus on alcohol consumption, hazing, and any other forms of degrading acts and put more of a focus on building friendships and Engineering skills.

It should also be taken into consideration that the attitude of many of the first year students entering university is beginning to change. Many of them are more interested in studies and academics than they are in extra-curricular activities. By fourth year, most of us learn that school isn't just about academics and marks. It's a lifestyle, and it's something that must be experienced. This is something that must be taught and learned within the first two years of an engineering students' career.

Unfortunately the events that are pushed date back years and years, and no one is

willing to challenge them and make them different or better. These events are generally not all-inclusive and don't really make for an inviting atmosphere. Take, for example, social walking tours of local establishments. Many people I have spoken to about going on these tours don't want to go because of the connotation that they bring. "Oh, I don't drink," is a common reply. I'm not saying that these tours aren't fun, I'm simply saying that we need to make more of an effort to include everyone, changing the name from Pub Crawl (which denotes moving from location to location consuming alcohol in mass quantities) is a good start. Now the focus remains on changing the event from a drinking event to one that can include more non-drinkers.

By the time that an engineering student gets close to graduating from Waterloo, it all boils down to the Iron Ring Stag (IRS). For the very first time, Waterloo Engineering students get to touch The TOOL! This is a big deal. The secrecy behind The TOOL, the mystique, the aura, the fact that we guard this hunk of metal and protect it from those that would do it harm, makes it one of the coolest mascots around campus. Yet, we barely get to touch it, let alone see it. The Canadian Prime Minister makes more appearances than The TOOL, and yet we guard The TOOL with such fervour that it might as well rule us. I understand why we need the high level of security but I don't think it would hurt too much if The TOOL made appearances at events where alcohol is not even present. Some would argue that The TOOL would lose its mystique and its aura, but frankly, if I didn't go to a term pub, I wouldn't see it.

Then, there are the events of the IRS day

itself. I find it humorous that many students describe the day's events by stating at some point, "Then, you sober up, get your ring, and go back to drinking." I'm not a big drinker, as many people can tell you, and the idea of drinking the entire day just does not appeal to me. I've been drunk before so I know what it feels like later on and the morning after. I don't quite like the feeling of being so nauseous that I can't move. Although I wouldn't readily admit to it, peer pressure would probably cause me to drink till I felt sick, or to the point where I couldn't move.

There is one more thing about IRS I want to talk about. At IRS your friends get to rip all the clothes that you are wearing off of you until they see the colour black or until they see bare flesh. Many of you would seem appalled at the idea of your friends tearing away your clothes and leaving you stripped wearing nothing more than a pair of boxer shorts. This sort of thing sounds like it came out of a prison! Yet, every year the tradition continues, and many soon-to-be professionals are left with their pants down.

If we continue to run events that are clique-like, we lose the people that we would want to carry on our traditions. There is no need to erase all trace of old traditions. We simply need to modify them so that they don't stagnate and become lost in an ever-changing student population.

Editor's Note: This article was originally intended to be part of a Point-Counterpoint. The views and opinions expressed here do not necessarily reflect those of the author(s), the Iron Warrior, or the Engineering Society.

Even a small voice can be heard

If spoken properly - Vote
Feds Election Feb 10-12
Vote online: www.feds.ca



Attention Engineer Students

FED BUS



FED buses will be
running just for you on
Wed Feb.18

4:00pm McCowan &
4:30pm Islington
Returning on

Sun Feb. 22 @ 7:30pm
Tickets Go On Sale Mon Feb. 16



Engineering Reading Days Special

1 can of pop & 1 bag of chips
for only **\$1.25** +tax

Federation of Students Candidates

Leanne Whiteley & Jon Fishbein
IW FEDS Election Bureau

On January 27th, the Iron Warrior FEDS Election Bureau, an independent body from the Iron Warrior Editorial Board, sent all FEDS executive candidates a letter containing 5 questions. All candidates were asked to respond to these questions by January 30 and to have included a picture. The questions and received responses are below.

1) Please provide a brief description of your background and what groups/committees/activities you have been involved with.

2) How do you feel the Federation of Students has helped the other student societies on campus? How can this be improved?

3) What made you choose to run with or without a ticket? If you decided to run on a ticket, why did you choose the people that you are running with?

4) What makes you different from the other candidates running for your position? And why should students vote for you instead?

5) What's one thing that you really like about the organization of the Federation of Students? What's one thing that you would like to see changed and how do you propose making that change?

Becky Wroe - President Candidate

1) During my involvement with the Science Orientation Committee, as a coordinator in 2001 and FOC in 2002 and 2003, I was involved in the introduction of 1900 students to life at the University of Waterloo. This opportunity in itself changed my views, as it made me remember that people don't generally enter into a new environment knowing what to expect.

As current Science Society President, I have worked since May to make the office available and accessible to students as much as possible. I've found that many people involved in societies are not aware that they operate under the Federation of Students.

As a Student Services Trainer, I have learned the issues that face students today, and have helped students develop the skills they need to be good leaders.

2) The Federation of Students encourages societies to be involved with each other, in planning events and attending each other's meetings, and also allows the societies the opportunity to make money by selling tickets for FEDS events.

The Federation of Students needs to communicate to the society members. As previously pointed out, many members of societies do not realize the FEDS represent

them. Attending General Society Meetings should be a priority of all the FEDS executives. As well, the council members from each faculty/college should be keeping their respective student body informed of choices they have, and points brought to council.

3) The strengths of others have a tendency to strengthen you in areas where you need work. I chose to work with John Andersen (VP Internal candidate) and Jeff Henry (VP Education candidate) because we have similar visions of what FEDS could be, but also because John and Jeff each have qualities I would like to improve in myself.

4) I've worked directly with students as Science Society President and within Orientation. I have helped train students to become Orientation leaders, and have acted a representative to students as a Science Faculty Council member and a Faculty of Science Foundation member. I've also worked with the FEDS executives for 2 years, as a volunteer and as an employee. These leadership skills demonstrate that I will be a capable and competent Federation of Students President.

5) The FEDS executive and full-time staff truly appreciate their volunteers and employees. They're friendly, and will always make time for people who want to speak to them.

Communication needs to be improved in and out of the office. In order to represent students, we need to be able to hear their ideas and thoughts. I would attend Committee of Presidents meetings to inform society presidents and residence councils of the activities of the FEDS. I would also work to implement a regularly updated log on feds.ca informing students of what the Federation has been doing.

Jeff Henry - VP Education Candidate

1) I spent sixteen months as VP External of Engineering Society 'A' overseeing numerous directorships while working with the provincial and national associations of engineering students, ESSCO (Engineering Student Societies' Council of Ontario) and CFES (Canadian Federation of Engineering Students). During that time, I coordinated the EngSoc response to the Microsoft agreement including the organization of the only public forum with the administration on the issue.

I sat on an ESSCO committee that researched an appropriate advocacy agenda for engineering students in Ontario and then was unanimously elected President the following year. I now sit on the Ontario Engineering Competition advisory board and on the Membership Advisory Committee of the Ontario Society of Professional Engineers (OSPE).

I have also devoted considerable time

to the Iron Warrior over the last two years, both on the editorial board and as a staff member. For three straight terms, I contributed more content than anyone else, despite being in Ottawa for the second term.

2) The Federation has contributed primarily through sponsorship of frosh week, through insuring assets and liability coverage, and through advocating at the university, provincial, and national level for the quality and accessibility of their students' education. However, the Federation does not work enough with the societies on academic issues. If I am elected, there will be a functional committee of society VP Educations, student senators, and the Federation to tackle important issues before they get out of faculty council.

3) The executive of the Federation needs to be about teamwork and cooperation. Becky Wroe and John Andersen have the experience and the dedication to represent and serve students well, and I would be honoured to work with them after this election is over.

4) You can be named to committees and attend the odd conference, but you cannot truly understand the complexity of a provincial or national organization without directing them. In setting the direction of ESSCO towards advocacy on behalf of engineering students, I have been exposed to the difficulties in the process that will serve me well in being your voice with the Ontario Undergraduate Student Alliance (OUSA) and the Canadian Alliance of Student Associations (CASA).

5) The Federation, on some issues, work well with the administration in the area of frosh week, so the organization there is definitely a positive thing. There does need to be a greater sense of purpose for each of the bodies of the Federation. Students' Council and the Board of Directors need to have a better sense of what each should discuss and decide upon. That being said, the aspect of the Federation that interacts with student societies must be the first location of change. Through a concrete mandate for the Council of Presidents and through the creation of a functional committee on academics of VP Educations and student senators, the Federation can be a better organization for all students on campus.

John Andersen - VP Internal Candidate

1) My experience on the Federation Orientation Committee has proven my ability to recruit, organize, and manage volunteers working on many projects simultaneously, keeping them interested and involved.

Working as a FEDS Service Coordinator of the Off Campus Dons has given me a unique insight into the workings of the Federation, and will directly

carry over from this position to the position of VP Internal. Coordinating OCD involves much more than managing dons and looking out for the welfare of first-year students, but helping them to develop personally and socially, the very same job the VP Internal has on behalf of all the students of the Federation.

As one of the founding members of the Warrior Weekends Committee I have extensive insight into this new and developing organization with respect to its structure, purpose, operations, and vision. I have been out at its events and watched as this organization has grown since its creation almost a year and a half ago.

Working as a student services trainer has helped me to gain a greater understanding as to the resources available to students, and the opinions and issues regarding acclimatization to student life.

Working for the FEDS has helped me to understand the goings-on of the FEDS office, and the resources available to students in their employ.

2) The VP Internal acts as liaison with the student societies, and is responsible for more than just funding to improve safety against campus break-ins, but must actively communicate with the societies to promote an involved community, empowered though its connectivity. Many of the students involved in student societies are completely unaware that they operate under the FEDS. I will work closely with every student society to keep them involved with the greater FEDS community.

3) I am running with a ticket because Becky Wroe, and Jeff Henry are incredibly talented people who would make excellent co-workers. Together we would make a powerful team working for the Federation. I could not run with anyone whom I did not fully support. My running-mates, Jeff, VP Education candidate, has extra-ordinary experience working to ensure the quality of education for all students, and Becky, Presidential candidate, has always been a student leader, being involved in the Federation Orientation Committee and Science Society President.

4) What makes me different from the other VPI candidate is that I have the experience working with the FEDS, one-on-one with the executives, and know how to help build a stronger community from already having worked towards this goal as a Federation of Students' Service Coordinator. It is the VPI's job to manage the volunteers, clubs, and services, and this is the relevant experience that I have from my years of involvement.

5) One thing I love about the Federation of Students is the quality of our clubs, services, and organizations. What I would like to see is an improvement of the quality, and accessibility to the information and resources the FEDS makes available to all students.

As a student I know how difficult it can be to find the useful information on the FEDS website. The Federation of Students of the University of Waterloo should have a website with valuable information to students, should explain what the FEDS do, and allow students to see the resources available to all students in an easy and accessible manner. Having a student population informed and educated about it's our representative body will empower students to get more involved and help set the course of their most valuable resource: The Federation.

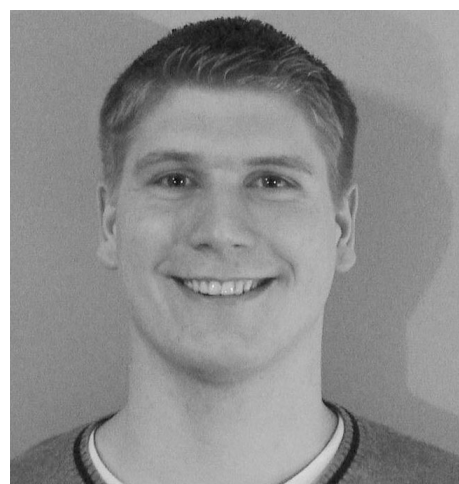
I have the skills and experience to make these changes. Look at our website for team yellow at www.feds2004.ca



Becky Wroe - President Candidate



Jeff Henry - VP Education Candidate



John Andersen - VP Internal Candidate

Exchange

Pride Would Never Set Foot in Paradise, Would It?

An Account of my Exchange in Hamburg, Germany

Erik Wilhelm
3B Chemical

Excuse my sloppy writing. I am no John Grisham, but the subject I have to work with here basically writes itself. I have been in Europe for four months now, and have seen and done things that will both keep me awake at night and help me to sleep. But before I get to that, I would like to thank my sponsors.

First of all, I'd like to thank DAAD. For those of you thinking about an exchange to Germany, do so knowing that DAAD will take care of you nicely while you are here. Secondly, I'd like to acknowledge the Sir Stanford Fleming Foundation. They offer many generous scholarships to students traveling abroad, in addition to fostering interaction between university and industry.

I should probably start with London, mainly because that is where I spent the first week of my exchange. But that would only be interesting if you have already had your dose of grandpa's old cough medicine for the night. The high point of London was a ladytron concert in ye old concert hall. Instead, I'll skip to

Oktoberfest in Munich. We did it up right, spending 23 hours on trains in 48 hours, and the rest of the time enjoying titanic mugs of freshly brewed beer. I slept in a locker in the train station. Alone.

Jump ahead to Hamburg, where I am living with two Frenchmen, a Mexican, a Brazillian and a Nargile. For those of you unacquainted with Hamburg, I will try to sum it up: Reeperbahn is like Rue St.Catherines in MTL to the power of 3, or like University plaza to the power of 25. A little over 2 million people live here and the surrounding area, with many immigrants and foreigners. An average night begins in the apartment, followed by a midnight train into downtown. Because of the train schedules and the quality parties, indulging until at least 4:47 is mandatory, and on most Saturday events a trip to the fish market after the clubs is impossible to avoid. I won't try to

describe the market.

I have also been to school. It is nice.

Ok so that about wraps it up for that. I wish all ya'll a frosty one. The temps have not dipped much below 0 here all winter. Of course I want to holla at all my Canadian brothers and sisters enjoying 3B without me. Don't give up the fight.

"I have been in Europe for four months now, and have seen and done things that will both keep me awake at night and help me to sleep. But before I get to that, I would like to thank my sponsors."



The Emerald Isle - Where Irish Eyes are Smiling

Kendra Ogden
4B Civil

Have you ever considered for just one second the idea of going on exchange? Periodically, there are posters advertising information sessions about participating universities and possible job opportunities. When I was in my 2B term, I contemplated participating in the exchange program, but I had no idea what was involved and if I even qualified. I went to the information session, filled out an application in my 3A term and the rest, as they say, is history. I spent my 3B term at the University of Ulster at Jordanstown in Northern Ireland, approximately 7 miles north of Belfast. To say that it was an amazing experience would be an understatement! I met so many people, with whom I am still friends, travelled parts of Europe I thought I would never see, learned about a culture by experiencing it firsthand, and learned more about myself in four months than I thought possible.

Before I get into the exciting part of

international exchange, I should make a few comments on the application process and the inevitable administration that is involved in such a venture. My word of warning: make sure you do your homework. Talk to Cindy in the Exchange Office for information regarding the exchange process. Make an appointment with your Associate Chair for Undergraduate Studies to make sure that you can get credit for courses you plan to take. Be sure that you know when applications are due as per the Exchange Office. Once the application is submitted, do not simply wait to be contacted. Be persistent and make sure that your application is in fact being processed.

Do the legwork of ensuring that the courses listed in the Exchange office corresponding to the University you wish to attend are in fact offered in the term you will be abroad. If this means making a few overseas phone calls, then make them. Spend the money now so that you do not find out once you arrive abroad that you do not have any courses to take unless you take what is offered that term, which could translate into a lost term from UW. Finally,

my last piece of advice is to be active in ensuring that the necessary material required for your academic file is being processed. Be proactive in this. Photocopy assignments, exam papers, etc. Also, making a call to your host University to ensure that your transcript is being processed and mailed to either yourself or UW is paramount.

Administration problems aside, I would never trade my exchange experience for anything. I spent the minimum time required on schoolwork and still managed to be quite successful thanks to the discipline and work ethic that the UW school environment taught me. Did I spend most of my time in a classroom or lab? Of course not! There were many weekend and day trips to Carrick-a-rede, Derry or Londonderry (are you Catholic or Protestant?), Dublin, Edinburgh, Glasgow, London, Kerry, Blarney, the Dingle Peninsula, and other sites. I ventured to the segregated parts of Belfast, Shankill and the Falls, separated by the religious hatred spanning hundreds of years and not likely to end in my lifetime. During this trip I

learned to be proud of being Canadian, born in a country with endless opportunities, the most important of which is freedom. I met young people who grew up in the reality of playing in a playground surrounded by armed soldiers. In the midst of the pandemonium within the government and religious groups, which I will never entirely understand, the Irish know how to have a good time. Their upbeat and easygoing attitude left me speechless at times.

I also spent more time in pubs than I ever dreamed possible (is that a good thing or a bad thing?). It was in those pubs that I met the most diverse and interesting people I have ever encountered and it was from listening to those people that I learned an awful lot about life and the Irish culture. My friends taught me that an assignment that wasn't due for a few days could be left until tomorrow!

Are you still considering an exchange? Then check out the exchange website: <http://www.eng.uwaterloo.ca/~exchange/> or talk to someone who has been on exchange. Make the most of the experience and have fun!



What's with that Thingy on my Pinkie?

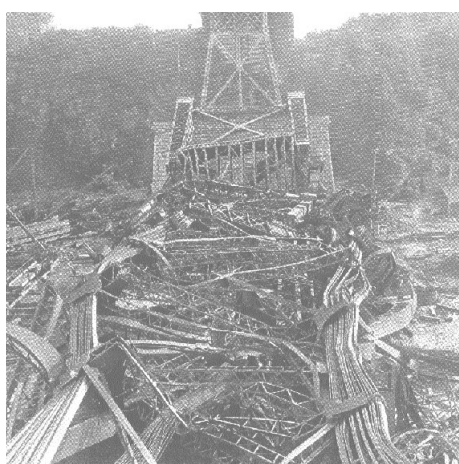
Leanne Whiteley

4B Civil



A couple of years ago, a friend of mine, Jonathan Bida, wrote a great article about the history of the Iron Ring Ceremony. The article stemmed from an email he received from a friend indicating that he would be unable to attend the Iron Ring Ceremony and wanted to know where he could pick up his ring. I have made some slight changes to the article, but the article is essentially the same. Please read on.

The ceremony - The Calling of an Engineer - is having its 79th birthday this year. Almost a century ago, Professor Herbert Haultain, a Civil Engineering Professor from the University of Toronto, was speaking at a meeting in Montreal, where seven past presidents of the Engineering Institute of Canada, as well as, other engineers were in attendance. He suggested that there needed to be some sort of institution to bind together all of the members of the engineering profession. He also suggested that there be developed an obligation, in the form of a statement of ethics, to which all engineering graduates could subscribe. His ideas were well received, and Haultain proceeded to contact Rudyard Kipling (Not to be confused with Rhubarb Kipling or Rudyard Killings). Kipling had made reference to the works of engineers often in

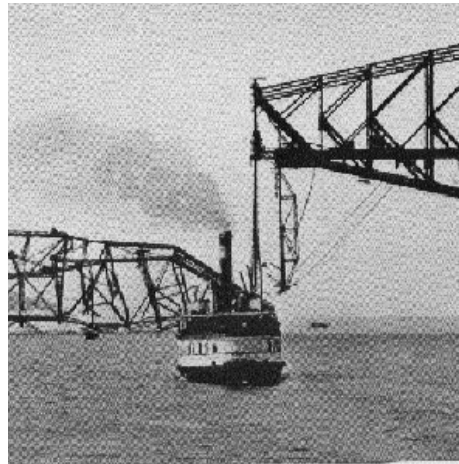


The Québec Bridge after its collapse in 1907. The disaster killed 75 workers.

his poetry and in other written works, so he seemed best suited for the task. Kipling, quite enthusiastically, came back with an obligation and a ceremony, which he named "The Ritual of the Calling of the Engineer". The Ritual is administered by The Corporation of the Seven Wardens Inc, of which the original seven past presidents were the first Wardens. This corporation is responsible for administration of the Ritual and is not associated with any university or engineering organization. The corporation has created camps in various locations in Canada each with their own Camp Wardens.

Although the details of the ceremony are not public domain, the relevance of the

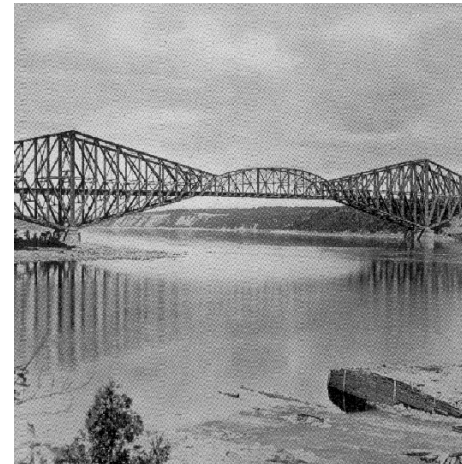
"The Iron Ring does not represent an engineer's qualifications, but rather exists to remind all engineers that we are obligated to live and act by high standards of professional conduct."



The Québec bridge collapsed again in 1916, this time killing ten people.

ceremony can be explained. The Iron Ring does not represent an engineer's qualifications, but rather exists to remind all engineers that we are obligated to live and act by high standards of professional conduct. Many people think that the rings were originally made from the steel of a collapsed bridge near Quebec City. On August 29th, 1907, near the end of seven years of construction, the bridge collapsed under the weight of a locomotive loaded with steel; seventy-five people lost their lives.

It was determined that the disaster could have been avoided if not for errors in judgement on the part of the bridge's engineers. Nine years later, on September 11th, 1916, another attempt to build a



The completed Québec bridge as it stands today.

bridge over the same river resulted in another tragedy and a loss of ten lives. The bridge was finally completed in 1917. Alas, the rings are not made from the steel of the collapsed bridge. Despite this merely being an engineering fairy tale, the lesson it teaches should be understood and it can be appreciated how a disaster like this can be so well associated with the meaning of the iron rings. These rings are not simply a piece of jewellery to wave around to your friends, they represent a very serious duty we have to society, to remind us that what we do actually affects other people.

In eleven days, my fellow graduates and I will receive our Iron Rings. We will take an oath and we will accept a responsibility that we must maintain throughout our professional careers.

I, like Jonathan Bida, also plan to be banging the darn thing on every lamppost and forehead from here to Halifax.

New Incubus CD leaves Odd Fellings Swirling

Dan Foong

4B Civil



Title: A Crow Left Of The Murder

Disc Length: 58:35

Tracks: 14

Extras: Bonus DVD (Unavailable at time of review)

Having previously enjoyed the band's previous release (Morning View), I can't seem to put my finger on what it is that Incubus does that makes their music appealing. I think that it started, for me at least, when I heard the song Drive from the band's "Make Yourself" album. The lyrics and smooth rhythms that emanated from my radio got me started. Anyways, the band's sixth offering to the music world will leave you with a bitter sweet kind of taste in your mouth.

Crow is an album that may not strike you as any oddball different from all the various other offerings out there, but once you've listened to a few tracks you'll probably feel the same way that I do: you're not sure if you like it, but you won't hate it.

Crow's first single, Megalomaniac, has been climbing the music charts since its release (it currently sits at #3 on the Billboard Modern Rock Chart). Sounding peculiarly like "Wish You Were Here (Morning View)", another band hit, there seems to be no reason why this song

is doing as well as it is. Or maybe that is the reason.

Having deviated from what many fans would call their roots, Incubus has strayed back to what has made them popular and done an admirable job of mixing together tracks that aren't just someone screaming into a mike, or reliant on an extremely difficult guitar solo.

"Megalomaniac" starts the album off well, but as you progress through the tracks, things start to sound the same. It's not the same thing as a Green Day rip-off (where only 3 chords make up any song), but when the songs become indistinguishable from one another it just becomes background noise. This might do well for those of you who like the hour-long singles that some bands release as albums, but Incubus could have done much more than that. It's not that I don't like their songs - they are great - it's just that repetitiveness is something that successful bands need to undertake.

Although many would consider "View" an album that strayed away from what made Incubus popular, I would like to think that "View" is the album that defined what the band was capable of doing.

In the end, once you've finished your first take of the album and let any feelings that have brought up settle, you'll probably feel awkward. You may want to listen to the album again (I did). However, in the end, it's not that the band released this album too hastily to appeal to their lost fans, or that it "went back to its roots", it's like I said earlier: it's not good, but you won't hate it.

OUTPOST TRAVEL FOR REAL PRESENTS

SPONSORED BY

OLN OUTDOOR LIFE

FEDS FEDERATION OF STUDENTS University of Waterloo

TRAVEL CUTS

Ian Wright
February 25, 2004
host of the Pilot Guides tv show

Humanities Theatre, University of Waterloo, 8 PM

Tickets Available at
The FEDS Office
General Admission \$17

Columns

ECE Fourth Year Design Project Symposium 2004

Jason Griese

4B Computer



January 21 saw the annual takeover of the Davis Center by the graduating Electrical and Computer Engineering classes to showcase their Fourth Year Design Projects. A year and a half of ingenuity, hard work, and tears culminated in an eleven hour marathon of presentations, displays, and very sore feet.

As for interesting projects this term we had TACO, an autonomous checkers playing robot arm that played with bystanders. Two robotic air hockey players made an appearance, as well as a robotic pianist.

There were self-adjusting rear-view mirrors for your car, improved traction

control for the Formula SAE car and camera based security systems for your car. There were also several projects designed to allow you to interact with your computer by looking at the screen and blinking to select objects. There was even a drunk-driving simulator (which was the most entertaining display at the symposium).

For more on the robot front, we had web cameras designed to track a person who is speaking, self-guiding robots, robots designed for cooperative behaviour and robots designed to operate on Mars. There was a novel new design for dual-tripod robot. There was also a candle sculpting robot.

The big change to the symposium this year was to have it all take place in one day, as opposed to previous years where it took place over two days. While it was nice to get it over with in one day, it was an eleven hour day which was a little hard to bear.



Wednesday, January 21 saw 83 different projects in a tightly packed DC Foyer as the culmination of a sixteen month design process.



The Robotic Pianist mimics the human piano-playing gesture with a pair of robotic hands that have the capability of automatically playing simple music pieces.



This human-machine interface combines the ability to sense the complete range of human motion and provides sensory feedback to the operator.



Sandford Fleming Foundation
E2 3322, ext 4008, sff@engmail
www.eng.uwaterloo.ca/~sff

*The Sandford Fleming Foundation is pleased to announce
the Winner of the 2003
Karen Mark Scholarship:*

Laura Greaves
*Mechanical Engineering
Congratulations, Laura*

Reminder - Technical Speaker Competition

The Faculty-Level Competition will take place on **Thursday, February 12** at 10 a.m. in DWE 2534. The winner of the Faculty Competition will receive \$300 while all other participants receive \$50. Please contact your undergraduate office if you are interested in participating in the Competition.

Refreshments will be served
Everyone is welcome

Romeo, You Idiot



Joseph Fung

3B Computer

When one thinks of the starcross'd lovers, Romeo and Juliet, one doesn't usually envision the clumsy pair from "Romeo, You Idiot". Victims of the bitterest of Mafia rivalries, the protagonists of this irreverent spoof of Shakespeare's most famous romance aren't going to let anything stand in their way.

This term's Engineering Drama production is being brought to life under the guidance of Ryan Consell - a third year mechanical student who is no stranger to the stage. With Christos Sarakinos as Romeo playing opposite Melissa Cesana as Juliet, "Romeo, You Idiot" promises ridiculous hilarity.

Looking to do a full length play as opposed to the usual pair of one-act plays, production staff decided to go with the tried and true - a playwright whose work has already survived the litmus test of UW Engineering - Tom Kochendorfer. Some of you may remember the success of his "Canned Hamlet" as performed several terms ago.

Kochendorfer's most recent Shakespearean spoof features quick-fire repartee and a large helping of the ridiculous. The cast alone, from a shift-eyed drug dealer to a vampiric Paris, can attest to that. Featuring a wide range of experience, much of the cast will be familiar to engineering play-goers.

Performances are scheduled for the evening of Friday March 26 and during the day of Saturday March 27. Atypically close to the end of classes, "Romeo, You Idiot" will be the perfect way to take a break from the stress of studying. Tickets to the shows will be available for sale closer to the end of term.

Chorus 1	Josh Hoey
Chorus 2	Maria Simoes
Police Chief	Drew Morris
Mercutio	John Leperre
Benvolio	Matt Kaciak
Gregory	Patrick Brown
Samson	Harpreet Aujla
Abraham	Mat Ho
Montague	Greg Linforth
Lady Montague	Jiamei Bai
Romeo	Christos Sarakinos
Capulet	Dave Held
Lady Capulet	Lisa Rehak
Juliet	Melissa Cesana
Tybalt	Quoc Huy Le
Nurse	Kristina Hlotz
Paris	Adam Schubert
Friar Lawrence	Dallas Card
Friar John	Adrian Bose
Servingman	Erica Dion
Page	Joske VanLeeuwen
Messenger	Joske VanLeeuwen
Police Officer	Sehzad Moiz
Drug Dealer	Karima Darssi
Servant	Sehzad Moiz

Music with a Conscience

Taneem Talukdar
1N Systems Design

There's been a lot of hoopla lately over illegal file sharing within university networks, even in Waterloo. When I first came here, I was told that using Kazaa would get my internet connection blocked. But as everyone seems to know, all you have to do is change your port number on the Kazaa settings and you can happily download away. And many people on campus do.

However, I've come across a great project on the University of Pennsylvania's tech website: offering a Napster subscription to all their students on their version of Resnet. Students can access Napster and 500 000 downloadable songs. This is the new Napster of course, the one where you have to pay to download songs - a hefty \$0.99 (US) per track. The service is being offered free to the students, but they still have to pay for every song that they decide to download and save to their hard disk. Listening to streaming songs is free however. And there are no bandwidth restrictions, because Napster will copy over 90% of all its songs onto University computer servers. All in all, not a bad service. The only problem is that it's pretty expensive if you want to download songs to put into your iPod or something. \$0.99 is a lot of money, and can buy me at least part of lunch in our overpriced cafs. Other than that, free high quality legal streaming music with no bandwidth restrictions sounds like good times.

I think it would be a great idea to have something like this at UW. The University

buys a large scale subscription from Napster, and we all get access to high quality legal music, with no risk of bad files, viruses or guilty consciences (haha). It would also clear up a fair amount of the traffic that clogs up Resnet, traffic which drags it down to infuriatingly slow speeds.

The University of Pennsylvania Napster collaboration can be found at <http://www.napster.psu.edu/>.

Poets Corner Lonely Nights

Niki Czerniak

4A Geological

Lying in bed
Awake at night
The sheets all around me
And yet only loneliness
Holds me tight

I roll over
In the dead of night
Hoping to see your face
Darkness confronts me
You are nowhere near

A tear rolls down my face
Having been so near
And now am so far
The loneliness holds me
While all I dream of is you

Cannes Ad Festival 2003

Bryan Bell-Smith
4B Computer

What makes a good advertisement? Does it matter if a commercial is comedic or action-packed? What about the best actors or latest sports star? Perhaps it's the money spent on cutting-edge animation that is important.

While those may be ingredients for a good advertisement, perhaps the most important measure is how well a commercial sticks in the minds of those who see it. If this is the case, many ads this year have met that mark.

Nearly all of the commercials in this year's festival were comedic in one form or another. From buck-naked soccer players to "the lamp has no feeling", this festival was a non-stop laugh. The moral of one Bud-Light commercial was "... because it's easier to apologize than ask permission."

Other notable commercials contained



The Ikea Lamps may have no feelings, but they were a big hit at the Cannes Ad Festival last year.

astounding feats of athleticism. Nike's new ad campaign hosts a stick-figure competing against real people in soccer, basketball, and even Frisbee. Another commercial has a man climb up and down a six-storey building with little to use but his hands and feet.

Not all commercials were so light and entertaining, however. Some were meant to shock the audience with images hard to ignore or forget. The public service announcements to protect children from abuse or the rainforest from clear-cut foresters were unforgettable.

Perhaps the most interesting commercial of the evening, especially for the engineers in the crowd, was created by a London-based advertising agency called Wieden & Kennedy. The commercial featured two hand-made pre-production Accords, of which there are only six in existence; one car was completely cannibalised to make the commercial. The commercial starts with a cog rolling down a ramp, which then bumps into second, then a third. A domino-like effect ensues with car batteries powering fans, oil spilling on a windshield, weighted tires rolling up ramps, and speaker vibration causing coils to roll. The commercial was shot in 606 takes and is part of a six-million pound advertising campaign. The ad can be downloaded from <http://www.honda.co.uk> under the multimedia section and is called "The Cog".

At 101 minutes in length, the Cannes Advertising Festival 2003 is a wonderful show. The audience was spellbound from the first commercial and was left wanting more. The festival is playing at Princess Cinema here in Waterloo; check your local listings for show times.

SNC-LAVALIN Award

Internships and Scholarships

SNC-Lavalin, one of the leading engineering-construction firms in the world, recognizes excellence in the new generation of engineers by offering engineering students a remunerated four-month summer internship and a \$2,000 scholarship.

Application forms are available from:
The Senior Program Coordinator,
Engineering Cooperative Education
and Career Services, Needles Hall,
Room NH 1011

A passion for engineering,
a commitment to sharing experience

snc-lavalin.com

Columns

Important February 2004 Dates from CECS

February

Feb 11: Workshops:

Letter Writing

Learn how to use letters to your advantage in the job search.

3:30-4:30pm TC 1208

Resume Writing

Discover techniques for writing an effective resume.

4:30-5:30pm TC 1208

Feb 12: Workshop:

Business Etiquette and Professionalism

Proper etiquette is crucial to a successful job search—and to your career. This workshop will cover dining etiquette as well as appropriate behaviour at interviews, employer receptions/sessions, and other networking activities.

4:30-5:30pm TC 1208

Feb 13: Ranking forms available after 10am and due back by 4pm

Feb 20: Continuous Phase Begins

POSTING 1 AVAILABLE by 12 noon

Feb 23: Job match results posted at 3pm Meetings for students without employment

4:30pm for 1B students in RCH 101

5:30pm for 2A and up in RCH 101

Feb 24: POSTING 1 EXPIRES at 8pm

Acceptance of employment meetings with coordinators

Feb 25: POSTING 2 AVAILABLE by 12 noon

Acceptance of employment meetings with coordinators continue

Meeting for 1st work term students 4:30-5:30pm (room locations to be posted)

Workshops:

Career Decision Making

After this session you will be in a better

position to assess yourself and your “fit” in the world of work. Covers self assessment, occupational research, information interviews, and career decision making.

3:30-5:30pm TC 1208

Letter Writing

Learn how to use letters to your advantage in the job search.

10:30-11:30am TC 1208

Resume Writing

Discover techniques for writing an effective resume.

11:30-12:30am TC 1208

Feb 26: POSTING 2 EXPIRES at 8pm Workshops:

Interview Skills: The Basics

Learn the fundamentals of successful interviewing. Note: Much of this information is similar to the Co-op 101 Interview Skills session. Co-op students should attend only if they need a refresher.

3:30-4:30pm TC 1208

Interview Skills: Preparing for Questions

Discuss and learn from taped excerpts of actual interviews.

4:30-5:30pm TC 1208

Feb 27: POSTING 3 AVAILABLE by 12 noon

Work reports (marked by co-op coordinators) available for pick-up at the Information Centre on the ground level of TC

Workshops:

Interview Skills: Selling Your Skills

Don't stop at the fundamentals; you must also prove your skills in the interview. Here is your opportunity to practise and improve.

2:30-4:30pm TC 1208

Powering the Region's Clear Air Plan

...continued from Page 1.

ARISE Technologies Corp. of Kitchener is working with Cook Homes to build new homes in the Eastbridge area with integrated PV systems. Also, the City of Waterloo recently installed a solar array on their City Hall building as a solar energy pilot project. Spheral Solar of Cambridge is developing a new solar cell that will use less silicon, thereby bringing the cost down to competitive levels.

All of these initiatives compliment the Region of Waterloo's Clean Air Plan, which aims (in part) to improve the region's notoriously poor air quality by pursuing initiatives such as public transit and renewable energy projects.

The S.T.E.P. project started in January 2002 and has since involved more than 75 volunteers and raised over \$40,000 from 22 sponsors including UW groups and businesses.

“This is the first of many renewable energy projects on campus,” says DeLoyde. The S.T.E.P. team is consid-

ering new projects including a solar hot water system for the Physical Activity Centre (PAC), a “solar sculpture” that moves when the sun is out, or a PV solar array that tracks the sun.

For more information, please visit

www.STEP.uwaterloo.ca.. You can also contact me at jdloyde@uwaterloo.ca or David Elzinga of ARISE Technologies Corporation by email at David.Elzinga@aristech.com or by phone at (519) 725-2244 x 227.



the Iron Inquisition

Leanne Whiteley, 4B Civil

How do you keep warm in the Winter?



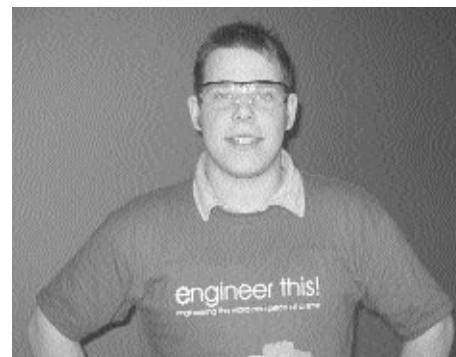
“Snuggle up in lots of covers with only my eyes showing.”

David Lam - 4B Computer



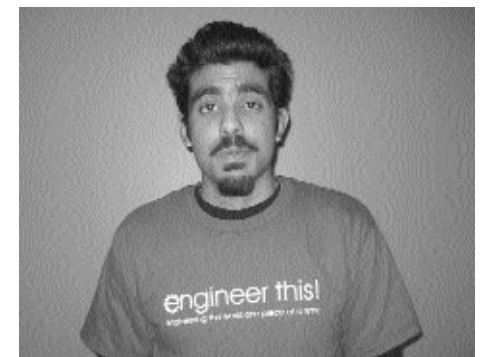
“How do you think?”

Garrett Smith - 4B Mechanical



“Skinny-dipping in Laurel Creek after excessive whiskey consumption.”

Mike Buczkowski - 2A Chemical



“Staying inside and watching re-runs of ‘I Love Lucy.’”

Rajat Suri - 2A Chemical



“I set my assignments on fire and put them under my bed.”

Chuck Norris, 1B Software



“With a torch...”

The ‘Specialist’ - 1B Software



“This zamboni has a heated seat.”

Tim Law - 4B Computer



“With a big bang.”

Box Man - 4N Applied Box Studies