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Waterloo Region To Develop Rapid Transit System

BAHMAN HADJI
4B COMPUTER

The Region of Waterloo held an open house Public Consultation Centre on Thursday, January 17 at the First United Church in Uptown Waterloo. Its main purpose was to inform residents about the Region's plans for developing a rapid transit system servicing Waterloo, Kitchener, and Cambridge.

The Region has developed a management strategy to handle the large amount of growth it is expecting over the next 25 years, with the population anticipated to increase by almost 50%. Part of this strategy is improving the public transportation service through the development of a rapid transit system. It is currently undertaking a Rapid Transit Environmental Assessment, which is used to evaluate the social, economic, and environmental impacts of adding a rapid transit system, requiring exclusive lanes for the use of public transit vehicles.

The assessment, which began in January of 2006, is broken up into three phases, with a public consultation taking place throughout each phase. The first phase of the assessment evaluated the options for dealing with the growth in the Region, including alternatives to rapid transit such as road improvements. Ultimately, rapid transit was chosen as the solution, with two possible technologies – Bus Rapid Transit (similar to Ottawa's Transitway) and Light Rail Transit (similar to Calgary's C-Train) – being recommended and approved by Regional Council last February.

See **OPTIONS** on Page 6



Talking Technology in Toronto

Reporting from the 2008 Canadian Undergraduate Technology Conference

FARAZ SYED
4B CHEMICAL

"Technology is everywhere, and it has a huge hand in shaping our careers." This was the message that this year's Canadian Undergraduate Technology Conference (CUTC) delivered. The ninth ever CUTC was held at the Hilton Hotel in Toronto from January 10th – 12th.

Approximately four hundred delegates were attending (and skipping class) to listen to and meet with leaders from the tech industry. The three days of conference were packed with keynote speeches and seminars to educate students about the world of technology, how it affects them, and how to take advantage of it.

Founded in 1999 by three Waterloo students, CUTC is a regularly-held, volunteer-driven conference that aims to connect students with leaders from academia and the tech industry. The conference regularly draws six hundred delegates from all over Canada, the majority being Waterloo Engineering students. It's only fitting that Waterloo students continue to strongly support CUTC, given that Waterloo is the heart of Canada's technology triangle and the world's top intelligent community of 2007.

The keynote speeches are the most interesting part of CUTC. Top technology experts and managers talk about the latest technological breakthroughs. Previous CUTC's have included such speakers as Mike Lazaridis (founder and co-CEO at Research in Motion), Craig Young (Global Research Centre Program Manager at General Electric)

and Werner Vogels (Chief Technology Officer at Amazon). This year's CUTC included speeches by speakers from Deloitte, Sandvine, Facebook, General Electric and Siemens.

The three days were filled with interesting seminars that educated delegates about applications of technology they might never have considered.

In all, there were twenty seminar speakers at this year's CUTC. This article will summarize some of the seminars.

See **SEMINARS** on Page 6



Letter From an Editor in Time

Past

It's Friday evening and while most engineers are drunkenly stumbling over to the Spur, I'm sitting here, covered in cornstarch-filled pancake batter (and shame on those who missed the first Enginuity), writing an editorial. Ah, the joys of running the Iron Warrior. Of course, it does give a nice, long title to add to the end of my name, and the perfect excuse to harass every single person I meet (you are going to be writing at least one article for the Iron Warrior, right?) And, one by one, I'll have the honour to have each of these issues archived, along with the last 73 issues in our online archives (not to mention our physical archive, dating back to the 1980's).

And I certainly have inherited quite the legacy: an answering machine last checked Oct. 16, \$1,500 to spend, a bunch of angry emails from both advertisers and readers (please read Fall '07, Issue 5 for more information), and a term-old sandwich from the C&D. But I'm definitely not without help: there are, at last count, 7 past Editors to look over my shoulder and scrutinize every page to the bone. That being said, I will also get quite a bit of help from their combined vats of knowledge. There is quite a lot for me to live up to, in order to maintain the quality of our newspaper; indeed, looking at some of the past editorials (for example, Bahman's chronicling of the history of the Iron Warrior), it makes me wonder how I can really stand out myself.

So, that brings up the question:

*What do you look for in an Editorial?
Does it hold any significance to you?
Do you bother to read them at all?*

If you do want to answer any of these questions, don't hesitate to send us an email at iwarrior@engmail.uwaterloo.ca, or drop a note in our suggestion box.

And I will, in fact, be asking questions or for opinions throughout my editorials. Those who manage to answer them all will be later invited to my Fabulous Prize Party, a party for all those eligible for Fabulous Prizes.

If you would look to your right (past the two empty columns (I'm still not sure what to put there), you'll see that the staff list is... Shorter than usual. This is thanks to my attempt at "passive" recruitment through asking:

"Well, if you guys think you'll have some free time, maybe one of you could help out with the layout a bit?"

Rather than more "aggressive" recruitment:

"Hey, it looks like you have lots of free time. Help me out with the layout, would you?"

This led to me being rather alone in my office, without any knowledge of how to use InDesign (the program used to layout our newspaper), for quite a lot of the weekend, although Jaclyn, Bahman, and Faraz are all planning on helping me out for most of the final, home-stretch of the paper (the last day), so I have complete confidence that I'll be able to produce this paper solo in due time.



DAVID MORRIS
EDITOR-IN-CHIEF

Present

As you might have noticed, I have split my editorial into two editorials. This is because my first editorial was written on Friday. This one is being written at 7:21 am Monday. It was a very interesting experience building a 12-page newspaper, to say the least (yes, it's only 12 pages). I'm pretty sure the record for "Most late submission" has been broken as of today, with an article submitted at 5:00 am (with two runners-up both submitting around 2:00 am; we can't all be winners, unfortunately).

Now, with The Time Warp playing in my head, due to the fact that I now associate sleep depravity with The Rocky Horror Picture Show thanks to SCUNT, I'll try to finish off this monstrosity in good time.

So, without further ado, a rough history of the production of this newspaper:

Friday

Spirits high-ecstatic. Lots of submissions. Started on my editorial, as well as proofreading. The new & exciting world of journalism and newspaper construction blinds me like a deer in headlights.

Saturday

Spirits still high. Moderate number of submissions. Hands starting to freeze thanks to lack of heating in room. Started on layout, with what articles I had. Eyes started adjusting to journalism.

Sunday

Spirits waning. Still no new submissions. As eyes adjust, shadows can be seen more clearly... Something seems wrong, but still not sure exactly what.

Monday

Ecstatic. 3 pages still unfilled, including cover page. There was no light in the first place; it was all an illusion I had created myself! It seems so simple now; so obvious it makes me want to laugh!

Thanks to perseverance on both my, and three past editors' help, I've managed to get this all done on time, looking decent (I hope).

So, the moral of this story is, if you're going to submit an article, please try to submit it on time. It really, really, really helps speed up the whole newspaper process. Below this editorial are the next few submission deadlines. Anyone interested in fabulous prizes (which, as I said before, will be given out at the fabulous prize party) should try to submit any articles 6 hours early (I get Friday afternoon off).

Also, if you're interested in submitting an article, but feel that you can't write well enough, don't worry! That's why I'm here! I'll patch up any inconsistencies (with your permission), so don't hesitate to bash out that article that's been bugging you!

Thanks for reading, and enjoy the issue (if you haven't already).

Future

In terms of goals that I have achieved for the paper over the course of this term, as my past-self stated months earlier, the Iron Warrior was well-endowed by WEEF in order to purchase some new equipment. This included a new computer, thereby halving the ratio of the number of computers we own vs. the number Imprint owns.

Advertisers

I have successfully subscribed to an advertising company, which will supply the IW with advertisements, taking at a small "finder's fee" as payment. Cu-Ads is our current advertiser, but suggestions are welcome, and if we do manage to get a better deal going, it will definitely decrease the Iron Warrior's financial dependence on EngSoc.

Wiki

I have built a comprehensive an Iron Warrior wiki, as I felt that such a document will greatly help new editors avoid learning lessons the hard way. Sections will include checklists, a FAQ (where the frequent asker is myself), past-editor advice (past editors were very gracious in this regard and devoted a large amount of time and energy into their sections), general procedures and the way things such as payments are done, as well as tables of current and past staff members. The wiki can be found at:

<http://engsoc.uwaterloo.ca/wiki>

at the bottom of the "Directorships" page.

Newspaper Format

I didn't start off with a very specific vision of the paper, but after publishing my first issue and seeing it in physical form, I started to get a much better idea of what the newspaper should "feel" like. That, combined with the excellent response to the question:

Why did you pick up this issue of The Iron Warrior?

I was also able to gain a solid amount of insight into what the general populous wanted out of the newspaper, which leads to the final goal which I achieved with utmost perfection (as I do with every goal):

Communication

As I said in this first editorial of the term, I was going to be asking questions, while hoping that there would be answers (which there were). Half the reason why I did this was because I was still very inexperienced in terms of running the Iron Warrior at the time, and half because I honestly did want to know how many people picked up the newspaper for the news, and how many picked it up for the crossword.

Another element of communication were through my editorials, and, I must admit, the first one was rushed thanks to oncoming classes and submission deadlines, but I'm pretty sure they only went upwards in quality from there.

Finally, I did include a letter to the editor section whenever I got one, so don't hesitate to send me an email.

THE IRON WARRIOR

The Newspaper of the University of Waterloo Engineering Society

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

The Iron Warrior encourages submissions from students, faculty and members of the university community. Submissions should reflect the concerns and intellectual standards of the university in general. The author's name and phone number should be included.

All submissions, unless otherwise stated, become the property of The Iron Warrior, which reserves the right to refuse publication of material which it deems unsuitable. The Iron Warrior also reserves the right to edit grammar, spelling and text that do not meet university standards. Authors will be notified of any major changes that may be required.

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 x32693. Our fax number is (519) 725-4872. E-mail can be sent to iwarrior@engmail.uwaterloo.ca

Future Submission Deadlines

Feb 1, 6:00 for publication on Feb 6, 2008

Feb 22, 6:00 for publication on Feb 27, 2008

Send your submissions to iwarrior@engmail.uwaterloo.ca

FASS 2008: How To Laugh At Global Warming



DAN ARNOTT
4B ENVIRONMENTAL

It's becoming the demon of our times, a universal expression for everything that is wrong with the world. Everybody's busy worrying about it, denying it, or trying to do something about it. Wouldn't it be nice to be able to take a night off and laugh at it?

Waterloo's FASS theatre company (FASS stands for Faculty, Alumni, Staff, and Students) is putting on another one of their epic, geeky and hilarious musicals this term, entitled 'Global Warming: Kiss Your FASS Goodbye'. Nobody is spared in this irreverent look at environmental issues. Producer Robert Burke says "In



typical FASS style we poke fun at all involved, from politicians to environmental activists, from celebrities to industry, even the 2010 Olympic Mascots!" The musical component of the show consists of parodies of many popular songs.

With a total theatre company of over

100 people, most of them newcomers, this year's production promises to be full of fresh energy and new talent. For a group that has been on campus since 1962, this infusion of people proves beyond a doubt that FASS has not lost its relevance.

One of the most remarkable aspects of FASS is that the show is cast, rehearsed and performed within the span of a month. A tireless team of techies, writers, actors, musicians, producers, directors, and stage managers have to come together to make it happen – they've done it every year since 1962, and this year, they're going to do it again. According to Robert Burke, "[t]his show has something for anyone with a sense of humour, and the writers and the rest of the creative staff are very proud of it."

SHOW INFO

Title
Global Warming: Kiss Your FASS Goodbye!

Showings
Thursday February 7th, 8pm
Friday February 8th, 7pm and 10pm
Saturday February 9th, 8pm

Tickets
Tickets are available at the Hagey Hall Box Office, and at the door prior to the show.
\$9 General Admission (\$7 Thursday)

Frost Week Events a Success



STUART PEARSON
1B CIVIL

This term got off to a fine start with a belated New Year's bash at BOT. With everyone back from the holidays, it gave people a chance to ring in the New Year with all of their engineering buddies in POETS. As per usual, the Tool arrived with great pomp and circumstance to a full house. After the appearance of our venerable mascot, the video from Frosh Week 2007 was shown, bringing back many fond memories for Frosh and lead-

ers alike. Unfortunately, the occasion also marked the first Unit 36-less -OT party since its untimely demise during the fall term (RIP). However, it seemed that a great time was had by all.

In continuation of BOT's festive spirit, Frost Week was held from January 14 to January 18. To kick things off, Froshnication Frenzy took place on Monday night. Designed as a mentoring program for the Frosh, it gave first-years a chance to sit down and meet older students. Set up much like a speed dating event, upper-years rotated around the room answering questions, letting everyone get to know each other. Queries ranged from the serious ("Where do you plan to be in five years?") to the

thought-provoking and possibly too revealing ("Boxers or briefs?"). Initially, the frosh were vastly outnumbered by older students, lured in by the chance to pass on their wisdom to the young. (Although apparently the prospect of free pizza may have also had something to do with it...)

The first EngSoc meeting of the term was held on the 16th and marked the first official meeting for the new exec, as well as for first and fourth-year students making the switch to A-Soc. It certainly seems like there are plenty of great events to look forward to in the near future and the rowdy fourth years in the back were only too happy to remind everyone that IRS is just around

the corner.

Several other events were held throughout the week to encourage Frosh to get involved in the engineering community here at UW. Résumé critiques were held on Wednesday night; a great resource for anyone hoping to land the job of their dreams. On Thursday, Engineering Does Pool was held at Dooley's, and Enginuity happened in the CPH foyer at lunch on Friday. The pancake-engineering challenge was a delicious success and a great end to a great week. Now with Frosh leader applications open, we can even start looking forward to Frosh Week 2008. See you there!



Sandford Fleming Foundation

Prize Money To Be Won!

Technical Speaker Competition

All students are invited to participate in the Technical Speaker Competition. The presentation is to be based on a work term experience, but does not have to be the most recent. Candidates are asked to submit a brief abstract to the Technical Speaker Competition co-ordinator, Prof. James Craig of Civil and Environmental Engineering in E2.

The competition will take place on Thursday, February 7 at 12:30 in DWE 2534. The winner of the competition will receive \$500 with the runner-up receiving \$250.

Debates

The Foundation has established the Sandford Fleming Foundation Debates in order to encourage the art of debate among engineering undergraduates. Each term there is one facultywide competition. Please contact Prof. Scott Jeffrey of Management Sciences (ext. 35907) if you are interested in participating. The overall winning team will receive \$300 each and the runners-up will receive \$150.00 each.

March 10 at 10:00 – 11:30
March 11, 12 at 11:30 – 1:00
PLACE E2 - 3324

FINALS: CPH Foyer, March 14 at noon

Refreshments will be served at finals
Everyone is welcome

E2 3336, ext 84008, sff@engmail
www.eng.uwaterloo.ca/~sff

ENGINEERING SOCIETY EXECUTIVE REPORTS

Presidential Report



TYLER GALE
PRESIDENT

Welcome back to campus Engineering Society A, and to those of you joining us for the first time, welcome to engineering Society A. Just a few quick notes to start off the term. The first EngSoc Council Meeting of the term was held last Wednesday. Here is the schedule for the rest of the term (Meetings are at 5:30pm in CPH

3385, except for Meeting #6, which is going to be in POETS): Meeting #2 – January 30th, Meeting #3 – February 27th, Meeting #4 – March 5th, Meeting #5 – March 19th, Meeting #6 (Pot Luck) – April 2nd.

Some major changes to the EngSoc web space are anticipated over the coming months. It is our goal to have a new layout functioning by the end of February, as well as many content updates. A beta version of the new layout will likely be online in mid-February.

An online wiki has finally become functional for use by all EngSoc volunteers.

The purpose of the wiki is to give directors, class representatives, and executive members access to information pertaining to their positions. All of this information has been written by a previous volunteer, and editing privileges will be available to current volunteers every term so that the information can be kept up to date. I am optimistic that this tool will be well-used and have a significant impact on the Society's long-term memory, but only time and commitment to the project will tell.

During the first week of January I attended the CFES Congress with Dave Halford and the rest of his delegation. It was a great opportunity to discuss issues with other engineering societies and gain some insight

and inspiration to bring back to Waterloo A. For more, refer to the VPX Report.

The newly elected Executive presented a set of goals at the first EngSoc Council Meeting. We will be giving an update on these goals at Meeting #5, with follow up updates at the beginning and end of the Fall 2008 term. This is a form of self-inflicted accountability and we are open to all of your questions and comments related to our goals. Your feedback is especially useful at this early stage of our time in office. Electronic presentations that were given at the first Meeting will be made available online. If you have any questions or comments please do not hesitate to contact me at asoc_prez@engmail.uwaterloo.ca

VPX Report



DAVE HALFORD
VP EXTERNAL

"For anyone who was wondering why 3 of your exec were missing for the first few days of this term, the answer to your question is finally here! Tyler, Lee Anne, and I (along with two other ASoc delegates, and a full delegation from BSoc) were off in Edmonton for a week attending the Canadian Federation of Engineering Students (CFES) Congress, a week-long conference with delegates from other Engineering Societies across Canada. Throughout the week, we attended various sessions geared towards building up our own Engineering Societies, providing direction for the CFES for the next year and into the future, and discussing relevant issues facing us and the Engineering profession in Canada today. One of the big discussion items that came up throughout the conference was CELF.

Who doesn't love talking about their CELF? I know I do! CELF, the Canadian Engineering Leadership Forum is a collaborative effort between Engineers Canada, the National Council of Deans of Engineering and Applied Sciences, the Association of Consulting Engineers of Canada, the Canadian Academy of Engineers, the Engineering Institute of Canada, and more recently the Canadian Federation of Engineering Students. Essentially, all of the key stakeholders in the Engineering profession in Canada are

working together to try to shape the future of the profession. For more information on CELF, check out the current issue of the CFES publication, Project Magazine, which is available both inside and outside of the Orifice while supplies last!" (Amanda Hoff, 17/01/08)

Tyler, Amanda, and I also met with the PEO's local Grand River Chapter last week. The PEO is currently concerned with the low percentage of engineering graduates who pursue their P.Eng after graduation. This percentage is now approximately 15%. In order to encourage higher membership numbers the PEO is trying to reach out to students through their Student Membership Program. Students are able to join the PEO as student members for the low, low price of FREE! This membership program is still in the development stages and the PEO is looking for feedback on where they should take this program. I would really suggest going to the PEO website (www.peo.on.ca) and joining this program to show support for Professional Engineering in Ontario and give us feedback to improve this program. If you have any ideas for improvement please see myself, Tyler or Amanda.

The last thing that I would like to say is that everyone should keep an eye out for our awesome charity initiative that will be coming your way soon.

(Note: This report is also available upon request in the form of an interpretive dance. Find me in the Orifice and ask!)

VPI Report



LEE ANNE BELCOURT
VP INTERNAL

Work term reports might be done, but job applications will soon be well under way. In my opinion, the facts show that engineering pancakes is a great way to clear your mind of anything. This was determined just before Friday's pub crawl at Egnuity, the first of many more dough-filled challenges occurring over the next couple of months.

For those of you who haven't met me, I would like to welcome you to A-soc for the term, even if it's only for the winter. During the next few months, I plan to try to improve our advertising strategies and increase the appeal of Eng Soc to more engineering students.

To improve our ability to inform students about upcoming events, I plan to consult some students with marketing experience and to run a survey to find out what will attract people's attention. Though results like bribery and missing pants may add complications, I am confident that by the end of the term student awareness should be on the rise.

In order to interest a wider variety of students to events, I am trying to organize a wider variety of events to appeal to different preferences and cultures. As I'd mentioned in my campaign, I am also going to arrange for a list of services offered to be posted outside the Orifice (the Eng Soc office). As of right now, the term's calendar is filling up quickly and directors are busy making these events run smoothly. Over the next couple of weeks, keep an eye out for these exciting happenings:

- Dance Lessons (Saturday, Jan. 26th)
- Paintball Trip (Sunday, Jan. 27th)
- Semi-formal (Tuesday, Jan. 28th)
- Ski Trip to Blue Mountain (Saturday, Feb. 2nd)

Last but not least, the Engineering Task Team is going to be looking for volunteers for charity events, IRS, and a poster team. This is a great way to get involved without the commitment of a directorship. Without leaving it all to your imagination, the rewards to be given out will be delicious and ridiculously good looking. On that note, I encourage anyone to come forward with new ideas or feedback and wish all of you a great term!

VPED Report



JEFFREY LIPNICKY
VP EDUCATION

And this is where it all begins – my first official executive report! I cannot promise any magical leprechauns or the like, but I will do my best to add a little life to my reports. This week, I will be interviewing everyone's favourite Vice-President: the Vice-President Education.

Jeff: How does it feel to be VP-Education?

VP-Ed: Well, Jeff, it is hard to describe. I am constantly surrounded by a flock of swooning women wanting autographs. I find it difficult to deal with all my new found celebrity.

Jeff: Does the job really bring that much glamour?

VP-Ed: No, but I wish that it did. Don't get me wrong, I love the position and what it brings. But a flock of women – that would be the life.

Jeff: So what do you plan to do this term as VP-Ed?

VP-Ed: I have actually formulated a list of goals for myself that I presented at the last EngSoc Meeting. If anyone missed them, they are online at engsoc.uwaterloo.ca under the Society link. If anyone has any comments about my goals, or would like to discuss them, I will be more than

willing to hear from you. Drop me a line at asoc_vpedu@engmail.

Jeff: Who is your favourite member of the exec this term?

VP-Ed: That is a tough question. Tyler was pretty hot, but sadly he cut off his hair. Who is the really cute guy that wears a cock-hat? I think his name is Jeff or something. He is quite dreamy...

Jeff: Ok.....moving on. Is there anything new to report to the student body?

VP-Ed: Not since my report at the EngSoc meeting. I would just like to reiterate that there is a new committee in the faculty devoted to Co-op. We will be working on a number of issues ranging from work term reports to defining what an engineering co-op term is. I will report the progress of the group back to council on a regular basis. If you have any comments or concerns, please do not hesitate to get a hold of me.

Jeff: Do you have any last words for your readers?

VP-Ed: Yes, thank you for asking Jeff. I would just like to thank my mom for bringing me into this world and my Frosh Mentoring and Resume Critique Directors for the great work that they did! They pulled off some wicked events. Also, on the topic of speed dating: does anyone know how to make dates last longer than them just seeing me? I seem to have too much experience with speed dating.

Until next time...keep your chin up and your pencil on the paper.

VPF Report



ADAM MELNIK
VP FINANCE

Hello, my dearest colleagues. It is my great pleasure to announce that as of January 7, 2008 Novelties has had and will continue to have operating hours of 11:30 – 1:30 pm Monday through Friday! Novelties has an excellent sales record this term with over \$1500 of prime University of Waterloo Engineering products dished over its counter thus far! Kudos to alumni and killer Directors for supporting this trend.

Taking care of business, the deadline for Budget Proposal submissions is on January 29 – Semi-Formal!! Donation Proposal submissions will also be due on February 26 this term. For those of you that have

never submitted either before, forms can be found in the Orifice or at www.engsoc.uwaterloo.ca under the Society Documents heading. I would encourage all Directors to have Expense Statements submitted a maximum of two weeks after an event is held to ensure the quick refund of expenditures. Note that the final day to submit Expense Statements is April 1.

Concerning my goals for the term, besides starting a company as cool as Sandvine, I plan to complete the commissioning of the Novelties Point-of-Sale system, introduce a new version of Quicken to the Orifice, and host a UW ENGINEERING T-SHIRT DESIGN COMPETITION!!

Remember to stay safe as you fly by night and keep warm with plenty of Novelties gear.

Finally, please answer the C&D Extension Survey below!

"Do you think it is necessary to construct a second C&D in one of the new engineering buildings planned for Parking Lot B?"

Please send your responses to asoc_vpfin@engmail.uwaterloo.ca or submit them to the dropbox outside of the IW office.

POINT VS. COUNTERPOINT

Point

Is Vegetarianism a Smart Choice?

Counterpoint

**JAY SHAH**
2A MECHATRONICS

First off, I want to start off saying this isn't going to be your typical article telling you that vegetarians are better than meat eaters etc. etc. My goal is to provide factually backed benefits (that you haven't already heard) of being vegetarian (or just eating less meat) and given the various circumstances that surround us in our everyday lives, I'd also like to leave you with some points to ponder. Let's start with a basic definition: a vegetarian is someone who doesn't eat things that belong to the animal kingdom. (Uh yea, that includes fish and seafood....stop asking...) Disclaimer: I am a vegetarian.

Let's go down the road of environmentalism. Consider that the meat you may be eating has travelled a very long way to get to you. In its journey to get to your local supermarket it has been frozen. As we know, freezers (especially industrial ones) are electricity hogs. So being a vegetarian greatly reduces the energy required to ensure the food you eat is fresh, by not having to freeze it on its (most likely long) journey to your neighbourhood. But that's not all there's even more environmental benefit! Chances are you've heard that North Americans (and Canadian's in particular) use a ridiculous (yeah, I used the r

"You save more water by not eating a pound of beef than you do by not showering for an entire year."

word...) amount of water in our day to day activities. Well, according to Robbins', *The Food Revolution*: "You save more water by not eating a pound of beef than you do by not showering for an entire year. It takes 5,000 gallons of water to produce 1 pound of meat, while growing 1 pound of wheat only requires 25 gallons" (to put the figures in what I feel is a fairer comparison, this means that 5000 gallons of H₂O makes 1 lb of meat, vs. 200 lbs of wheat – and for nutritional comparison: to produce 1 kg of animal protein, 3 to 10 kg of plant protein is required). (Cheesy Infomercial Voice: But wait! There's more!) As if energy and H₂O conservation wasn't enough, the less meat eaten, the less land we have to use to feed the same number of people. This is an argument often mentioned, but countered by the question, "What else would we use that land for?" I think that question would be a great topic for further research, but off the top of my head I'm thinking grow something either to produce more food or to convert into a bio-fuel to ease the looming energy crisis – I'm sure the land will put itself to good use. So hurray for the environment!!

Ok, we're done with the road of the environment, onto the suspension bridge of health. Eating vegetables gives you the peace of mind that you're not going to contract some sort of crazy animal

disease, like mad cow, or the avian bird flu. In addition, you have the comfort of knowing that the less meat you eat, the less you are helping the spread of those diseases. As a personal observation that has been confirmed by several others, I find that being vegetarian really helps you watch your diet in terms of nutrition and overall health. You are more conscious of what you eat and as such, are a fair bit healthier. The American Dietetic Association reports: "Vegetarians have been reported to have lower body mass indices than non-vegetarians, as well as lower rates of death from ischemic heart disease; vegetarians also show lower blood cholesterol levels; lower blood pressure; and lower rates of hypertension, type 2 diabetes, and prostate and colon cancer." Lack of protein comes up often as a difficulty of vegetarians, but I assure you, as long as you watch what you eat, and plan ahead a bit, getting enough protein is not really a challenge (soya, whey, zoya are just some of the many meat alternatives). Hurray for health!!!

We're past the bridge, going for the home stretch on the highway of humanity. One of the biggest 'arguments' I face is that people say humans are meant (designed to) eat meat, and are the dominant species of the planet because we have eaten meat in the past. I am not going to comment on human anatomy; but I feel that saying that just because we have eaten meat in the past, we should continue eating meet indefinitely

into the future is a very short sighted argument. I won't argue that humans are the dominant species of the planet because of our past meat eating habits, but now that we are in that position, we can reflect on our need to eat meat in today's world. We can maintain our position as 'rulers' (a term I find appalling) of the planet quite sustainably while not eating meat, so don't give me this 'evolutionary' argument crap.

So, we're near the end. So what's my point? What do I want from you? Do I want you to be vegetarian? That's your choice; I'll be your friend either way. Would I like you to be more aware of the effects of your consumption choices? Yes. Do I want you to consider eating less meat? Yes! Our generation is supposed to be about positive global change. We are making attitude changes in all parts of our life (turning the lights off when possible, turning the tap of when tooth brushing etc. etc.). Why not look at our diet too? The way I see it, it seems to be a heavily influential factor in how destructive our stampede is across this planet (realistically, we aren't at a stage to use a word such as "fluffy" as our ecological footprint). Try a veggie burger....you might actually like it.

Prove yourself worth as the dominant species of the planet, inspire global change by taking action. Make a difference.

**ANDREW DODDS**
2T MECHANICAL

Omnivore beats vegetarian, hands down. Until the day comes when we grow meat the way we grow wheat – and believe me, the test tube baby steps are already underway – cutting meat out of your diet could be the worst choice you ever felt good about.

First, let's get the obvious on the table. If you are part of a religion that forbids meat on whole or in any part, that is your belief and you should be true to yourself. If you eat no meat because you feel it's a violation of the animals in any way, that too is a belief, and I implore you to stay true to yourself.

Now, if you choose to abstain from steaks because of a notion of health being found in their absence, it must be pointed out that this is the wrong way to go. Let's start with the basics. In nature, there are herbivores (animalese for vegetarian), carnivores (animalese for guy who lives at Morty's), and omnivores (our closest animal buddies). If you look at them closely, it is obvious that we are not like the herbivores - with mouths of incisors for snipping and molars for grinding, coupled with massively long intestines for extracting the hard-to-extract nutrients from plants, possibly after multiple stomachs – nor are we a mirror of carnivores, who have mouths filled only with sharp canine teeth for tearing at flesh, and short intestines quite capable of extracting the bountiful nutrients found in meat.

We are actually closest to the omnivores, who boast incisors, canines, and molars, only one stomach, and intestines with a length between those of carnivores and herbivores. This system is designed to benefit from both meat and plant intake, as is ours. If eating meat and plants was a bad thing, we wouldn't run from bears in the woods; instead, we'd find them dead or in need of medical attention from their poor diet. Or, since they've been doing this omnivore thing for millions of years, they would be long since extinct, and likely all carnivores would be gone too as well.

So, if you can accept that there aren't any disability clinics for animals who eat meat to get help with cardiovascular disease and diabetes, can you not accept that we too are meant to eat meat? Let me point out that eating meat does not mean camping out at KFC. In fact, a normal serving of meat at a meal should be roughly the size of a deck of cards, two and a half ounces, meaning that almost any time we eat it, from a four ounce hamburger to a twelve ounce king-sized steak, we are getting more than our bod-

ies need.

This excess is the unhealthy aspect of meat, especially when enjoying the grade F meat served up all too commonly in our world. It is the lean meats that are good, but are also all too sadly rare in our diets. Meats help to give us the fats, proteins, and minerals that aren't as easily found in non-meat substitutes. As good as they are at trying to fulfil our body's needs, meat is still the fullest, most balanced, and most concentrated nutrient source available.

One can't argue that meat is bad simply because our markets treat it badly, and offer up the fatty, too-large portions of it that we should be limiting. The right, healthy choices, like lean chicken and omega rich fish, are far from hidden in our lives, even if we choose to ignore them. Eating only vegetables is a dangerous path just as eating the wrong meat is. It is a challenge to get the right balance of our bodies' needs from just vegetables, and the unnatural and often also poorly portioned supplement pills enter the mix as well.

Getting outside of these fundamentals and into the current state of the world, people also get down on meat because of the images thrust into their eyes of chickens shoved three-deep in tiny cages, and of the most pitied of all meats, the poor lonely baby calf veal. Once

"..people also get down on meat because of the images thrust into their eyes of chickens shoved three-deep in tiny cages, and of the most pitied of all meats, the poor lonely baby calf veal. Once again, we can blame this not on meat, but on those who abuse it."

again, we can blame this not on meat, but on those who abuse it. There would be no need for such conditions if meat was not the biggest accepted excess of our society, and yet still there are plenty of farms which let animals enjoy a more serene existence, with plenty of space and attention. The lesser situations in which we find animals is because of the excess

of the market, but does not in any way mean that meat itself is bad, only that we abuse it. Meat prices should be allowed to rise, to help control our excess of it, just as corn subsidies should be stopped, so that incredibly cheap, high-fructose corn syrup stops plaguing America and the world with obesity. With that, we could do away with meat farms, and happily keep chickens, pigs and cows from going extinct, while giving them a peaceful pampered life.

In the end, it comes down to a matter of choice. For me, the choice is never between eating meat or not, but rather choosing to eat it more respectfully and balanced. That is what nature intended, and it is what remains best for my health, and for the health of meat in our world. I will stand by vegetarians in protesting abuse of animals, excessive use of meat, and deplorable quality of meat, but I will respectfully walk around the corner to eat my chicken sandwich, along with the rest of my fully balanced meal.

Editor's Note:

Point Vs. Counterpoint is a feature meant to stimulate discussion on thought-provoking topics. The views and opinions expressed here do not necessarily reflect those of the authors, *The Iron Warrior*, or the Engineering Society.

Seminar Topics Included Stem Cells, Concurrent Programming

SEMINARS

Continued from Page 1

Efficiency in the Construction Sector

Brian Watkinson of Strategies 4 Impact! Inc. spoke about the need for more efficiency in the design and construction sector, noting that "one third of the energy and resources we invest in buildings and bridges is wasted." He is an architect and former Executive Director of the Ontario Association of Architects.

Stem Cell Technology

Eric Jervis, a Chemical Engineering professor at the University of Waterloo, discussed his work in developing technologies for the manufacture of cells for transplantation. Dr. Jervis's research focuses on the application of high resolution imaging and photonics-based analytical techniques, and he is a member of the Canadian Stem Cell National Centers of Excellence.

Disruptive Technology and Technology Trends

Sylvain Duford, Canadian Lead Architect at Avanade Canada, discussed disruptive technologies and their impact on companies. One example of a disruptive technology is the digital camera. The freedom it provided consumers outweighed the poor quality it initially offered. As its popularity grew, it forced camera companies to re-evaluate well-established business models and adapt to a new technology.

Protecting Intellectual Property

Jeet Hothi, the Director of Technology Transfer Office at the Canadian Research Council, gave a talk about the various methods of protecting intellectual property, including patents, copyright, and trade secrets. Mr. Hothi



has won numerous awards including four awards for his work in technology transfer: two President Awards, Queen's Jubilee Award and Federal Partners in Technology Transfer Leadership Award which recognised CRC as number one public lab in North America in terms of IP management and technology transfer to industry.

Multi-threading and Concurrency

Igor Benko is a staff scientist at Sun Microsystems Laboratories who has been dealing with concurrency for most of his career. He's written three theses on concurrency and worked on multithreaded software products. At the seminar he discussed why concurrency is perceived as hard work, and how to develop programming skills that take advantage of modern processor architecture.

Manufacturing Execution Systems

Anita Gatti, a Senior Consultant at Brock Solutions, talked about the challenges manufacturers face in optimizing their processes in the face of information overload and uncertainty. She introduced the concept of Manufacturing Execution Systems, solutions which act almost as expert systems to a manufacturing company. Such systems are connected to everything from the manufacturing line to the inventory system and allow upper management to quickly make decisions based on data that would otherwise take days to collect.

This year's CUTC featured a new event specifically designed to let delegates engage technology leaders and showcase their talents. The TechTeam design competition allowed participants to tackle real-life case studies offered by competition sponsors. RIM, Infusion,

See NEXT YEAR on Page 7



Region Outlines Rapid Transit Options

OPTIONS

Continued from Page 1

While the existing rail corridor through the region could be used for the rapid transit route, new tracks would still have to be built to accommodate either BRT or LRT.

The second phase, which is currently underway and nearing completion, involves studying the routes (common to both selected technologies) that a Waterloo Region rapid transit network could have.

The Region's Central Transit Corridor was broken up into seven segments from north to south, with locations for transit stations being identified for each segment. A variety of different routes were considered for each segment, with each option being assessed and ranked. The final step of the second phase will bring together all of the segments and identify a combination of routes connecting through the seven segments that would best suit the Region, along with the decision to choose a technology for the rapid transit system. This process is expected to be completed by the end of this year.

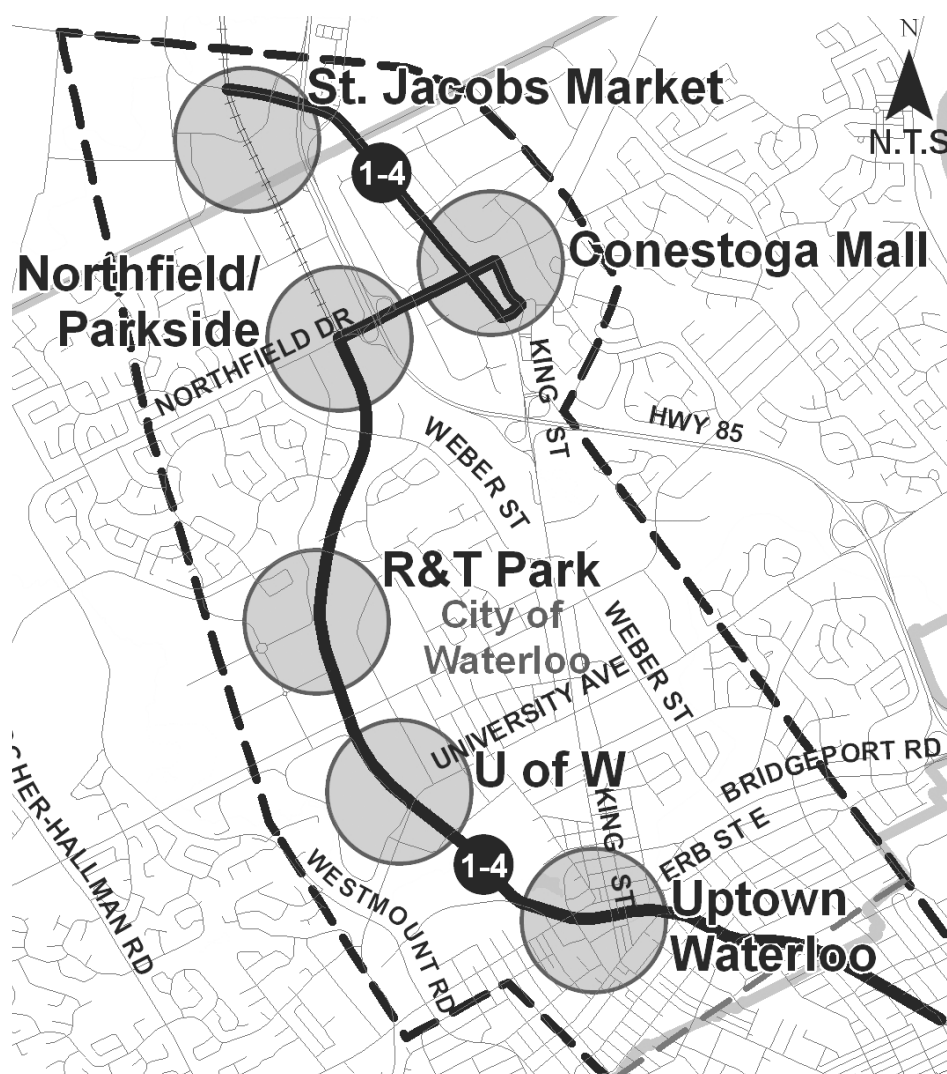
The third and final phase of the assessment will look at the actual engineering of the transit system, with a cost-benefit analysis on the five or fewer overall route candidates and their actual implementation. Another public

consultation will be organized before the recommendations go to Regional Council for approval. By the end of the third phase, which should wrap up in 2009, the engineering specifications for the Region's rapid transit project will be laid out.

The construction of a rapid transit network will be one of the largest infrastructure projects in the history of the Region, according to Keren Adderley, the project's Coordinator of Communications. Following the assessment and Council's approval, the Region will prepare a Request for Proposals in order for companies to bid on the construction contracts as well as the equipment. Decisions such as the look of the stations and the naming rights of the system will also be considered during the period after the assessment.

The province of Ontario has committed to providing two-thirds of the funding required to build the system. The Region is hoping that the federal government will also invest in the project, after having already contributed to the funding of the iXpress express bus service system that has been operating since September of 2005.

The optimistic timeline for the project has construction on a rapid transit system in the Region of Waterloo beginning sometime in 2011.



This rapid transit route was ranked as the best option for Segment 1 of the Central Transit Corridor. The circles represent transit stations.

NEXT YEAR

Continued from Page 6

Facebook and Nortel each made their case study presentations Thursday afternoon. Participants had roughly two days to prepare a solution to the problem posed by the case study and present it to the sponsors on Friday afternoon. Each company had prizes for the winning team.

Infusion had an interesting and demanding challenge. Each of the teams had to propose a new game idea and present a marketing plan and demo video of the game. RIM's challenge to students was to propose new applications intended for university students. The winning idea for the RIM challenge was called LecturerMate – an application that would assist lecturers communicate more easily with students. Each member of the winning team received a Blackberry. Facebook asked their teams to come up with an innovative note-taking application based on the Facebook web-application platform. The winning team took home iPod Nanos.

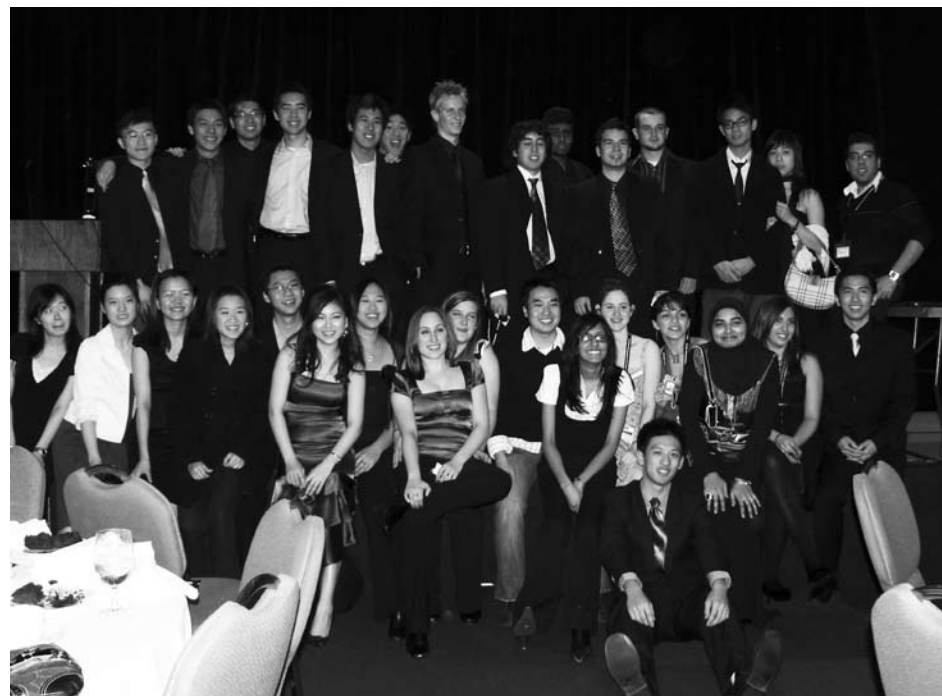
I have been to CUTC thrice during my four years at Waterloo, and I have found it to be a positive experience every year. Over the course of a single weekend, the organizing committee works tirelessly to connect delegates to the tech world – to educate and enlighten them and to allow them to personally connect with the leaders of today. It provides powerful inspiration for curious students, and I would consider it an essential supplement to the knowledge we gain at school.

CUTC is also a great way to get a head start in your career. The conference sponsors are well aware that the delegates are motivated young students, the movers-and-shakers who will be the leaders of tomorrow, and are always keen to recruit from this pool. They

collect literally hundreds of resumes during the TechExpo event and invite students to contact them with their resumes. For the delegates, it is their hope that the education and contacts they acquire will also translate into a vibrant future career.

Apart from the benefits of attending CUTC, I should also point out that CUTC is a lot of fun. It isn't everyday that we get the chance to dress up and stay at hotels like Sheraton or the Hilton. It's also a great opportunity to interact with students from outside Waterloo.

It will be interesting to see what direction CUTC will take in the future, and how it will find better ways to educate us about new technology (which is the backbone of our profession). From a graduating student to the rest of the Engineering community, I have one simple message: go to CUTC next year.



The volunteers who organized this year's CUTC in Toronto

CFES 2008 Congress



ADAM
HAMMOUD
1B CIVIL

I am in the Toronto Airport, once again finding myself caught in the lag of the airport delays. Three hours of waiting later with multiple boarding changes and plane delays, I was finally on my way to Canadian Federation of Engineering Students (CFES) Congress 2008. The conference hosted approximately 150 engineering students from across Canada, representing more than 40 engineering societies. There were also a few representatives from partnering organizations in Europe and New

Zealand. On my 2:30 AM arrival at the hotel, I was time shifted, hungry and mad because I had a crappy cab driver, and all I wanted was sleep. Sleep was minimal over the whole week, something which I discovered after my first few nights. The early mornings were especially rough because of the amazing night events, and the numbers of people being on time in the morning dwindled through the week.

The first morning was a regional meeting (Ontario), which provided an outline of the week and introduced me to other delegates. The goal of congress this year was to analyze the changes and opportunities for engineering in the next 20 years. Many things happen during a congress session, including an opportunity for elections of the board of directors as well as the CFES national executive. Congress also holds a plenary session that is a tiresome, but required process where motions are presented and voted on.

Apart from the work, the conference was full of amazing people from across the country that made the week memorable and unbelievable. The nights consisted of going to great bars with cheap drinks and attending events like formal dinners and dirty roller discos. To say that there was a night better than others would be unfair because they were all amazing.

After a long week of conferencing and partying I started my trip home with a permanent hangover from the drinking, no voice from playing too much Yee Ha! and a much better understanding of engineering across Canada. For those who are interested in attending CFES Congress 2009, it is held annually in January and Waterloo usually brings five delegates from each society. So get involved in our school, and go have the best time of your life like I did.



Sandford Flemming Foundation

Professionalism.
Leadership.
Communication.

There's more to an engineering education than engineering.



SFF COMPETITION SERIES FOR THE WINTER TERM

This term the Sandford Fleming Foundation will host a series of competitions for the undergraduate students in engineering. Where applicable the winners of these competitions will be invited to compete in the Ontario Engineering Competition (OEC) normally held in February. The winners of the OEC are invited to compete in the Canadian Engineering Competition (CEC). Additional information is available on the Foundation's website.

Sandford Fleming Technical Debates

The Foundation has established the Sandford Fleming Debates in order to encourage the art of debate among engineering undergraduates. Each term there will be one faculty wide competition. The overall winning team will receive \$300 each and the runners-up will receive \$150 each. The debate co-ordinator is Professor Scott Jeffrey of Management Science CPH 4325 (ext. 35907). Register by sending an email to sajeffre@gmail.uwaterloo.ca

Technical Speaker Competition

The Technical Speaker Competition was established to encourage public speaking skills within the student body. The presentation is to be based on a work term experience and does not have to be the most recent. The winner will receive an award of \$500 with the runner-up receiving \$250. Candidates are asked to submit a brief abstract to the Technical Speaker Competition co-ordinator, Professor James Craig of Civil and Environmental Engineering, E2 3322.

Senior Design Competition

The Senior Design Competition is held in the winter term and is open to students in year 4. Both streams are invited to enter as many teams as they wish. The winning team will receive \$500 with the runners-up receiving \$250. Both streams are invited to enter as many teams as they wish. Waterloo can send the winners of both the A and B stream to OEC. Please contact Engineering Society if you are interested in entering this competition. EngSoc is responsible for organizing the competition.

Consulting Engineering Competition

The Consulting Engineering Competition is held in the winter term and is open to students in year 4. In this competition team are given a problem and must solve it and sell it. The winning team will receive \$500 with the runners-up receiving \$250. Both streams are invited to enter as many teams as they wish. Waterloo can send the winners of both the A and B stream to OEC. Please contact Engineering Society if you are interested in entering this competition. EngSoc is responsible for organizing the competition

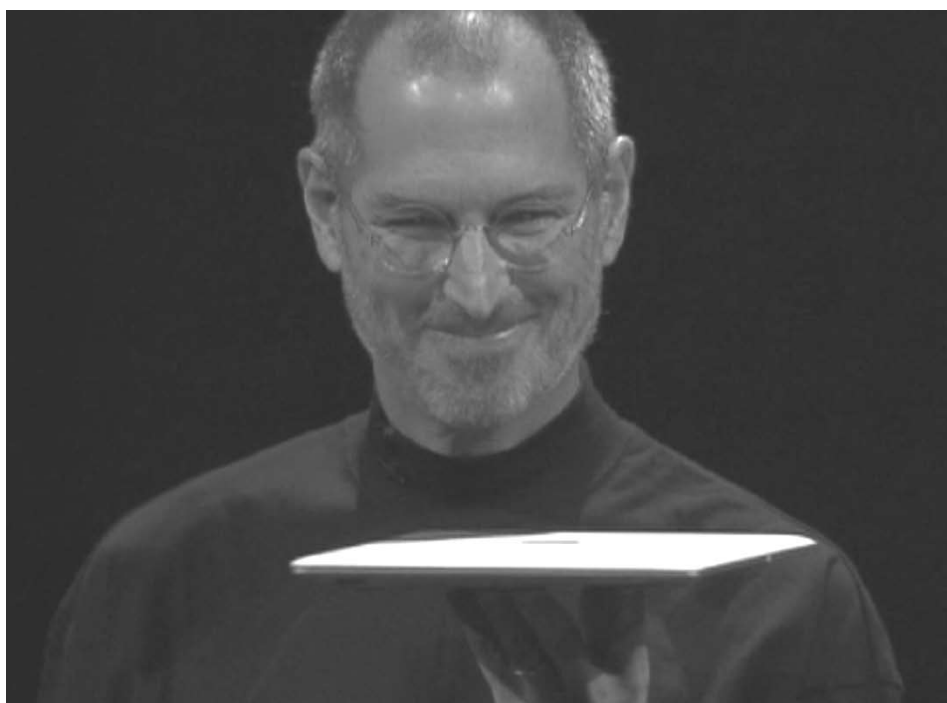
E2-3336, ext 84008, sff@gmail.uwaterloo.ca
www.eng.uwaterloo.ca/~sff

Apple: The Future is Wireless



MARC PICHE
2A COMPUTER

Macworld is a Mac-centric trade show that showcases software and hardware for the Apple product ecosystem. Since 1997, Macworld has been known for the keynote address given by charismatic Apple CEO Steve Jobs. Apple has used this keynote to introduce new lust-worthy products such as the iPhone in 2007 and the MacBook Pro in 2006. The keynote announcements this year may not have met many people's expectations, but Steve managed to solidify Apple's vision for the future of computing.



Steve Jobs unveils the MacBook Air.

Steve Jobs introduced the keynote this year in four sections each with their own product announcements or updates.

The first was Time Capsule, a companion product to the flagship feature in their new Leopard operating system: Time Machine. Time Machine keeps an incremental revision of all the files on your computer and allows you to recover any deleted files. It also lets you restore the computer in the event of a hard drive failure. Now with Time Capsule, all the computers in the house can wirelessly backup their data onto the new companion product which is a combination wireless router and hard drive. It's essentially an effortless backup system that could be a life-saver if your internal hard drive died just before you were about to print that work term report.

The second was an update to the iPhone and iPod Touch firmware. Since we still don't have the iPhone here in Canada (I blame this on Rogers, not Apple) we only really care about the iPod Touch. The newest major feature is the ability to find your current position in the Google Maps application. Since the Touch does not have GPS, it uses nearby wireless network signals to triangulate your location. This won't be the most accurate positioning system, but it will certainly help in those where-the-heck-am-I situations.

The third was the release of movie rentals for iTunes and a revamped Apple TV. This isn't a major update for us Canadians right now considering we can't rent any of the movies yet, but Apple has plans to roll it out internationally later this year. All major movie studios are supporting Apple, and they will have all the latest movie releases available 30 days after they are released on DVD. The new Apple TV software no longer requires a computer and movies or songs can be purchased and added directly to the device from the comfort of your couch.

The fourth was Apple's entry into the sub-notebook market: the MacBook Air. Jobs wowed the audience by taking the new aluminum-clad, ultra-thin, three-pound notebook out of a standard manila folder. The MacBook Air supports the latest 802.11n wireless specification and also the latest Bluetooth 2.1. The notebook does not have an optical drive, but Apple has developed a feature called Remote Disk that allows you to borrow another computer's optical drive over the wireless network (works for both Windows machines and Macs). I emphasized wireless in the previous sentence to highlight another missing component of the Air: an ethernet port.

Warning: The rest of this article contains opinion.

The MacBook Air has received a lukewarm welcome from some critics because they believe Apple has compromised too many features for style, thinness, and sex appeal. What people fail to realize is that this notebook is not meant to be your main computer – it is meant to be a companion notebook to your desktop. Unlike the MacBook and the MacBook Pro, the Air is not a machine you would use unless you had a more powerful machine waiting for you somewhere else.

Now, you may be thinking: "WTF? A computer without an ethernet port? What a piece of crap!". Apple did it with the iMac in 1997 when they shipped those candy-coloured all-in-one computers without a floppy drive and they are doing it again with the MacBook Air. They are taking advantage of the newest wireless-N spec, and are forcing users to cut the cords. They may have removed some standard features available on most notebooks today, but they aren't leaving their customers out in the dust either. Time Capsule and Remote Disk allow the MacBook Air to accomplish old tricks without the need of wires. But if you really need an optical drive or ethernet jack, Apple will sell those to you as USB dongles. Let's be honest though, when is the last time you really needed that optical drive?

Considering the wireless backup through Time Capsule, wireless positioning with the iPod Touch, wireless and computer-less Apple TVs, and the missing ethernet port on the MacBook Air, I think it's a safe bet to say that Apple is trying to rid our lives of cluttering wires.

Am I a raving Apple fanboy? Did this article rub you in the wrong way? Maybe I left something out?

Let me know: mpicche@gmail.com.

Recruitment with a Difference



ABHILASH JAYAKUMAR
2A MECHATRONICS

For most of us, hearing that Sandvine is coming to campus is like music to our ears. Not many recruitment events attract students quite like this one. With an open bar and free food, the line outside Bomber started piling from 6:30pm and extended around the SLC through to the vending machines. Sandvine was clearly the topic on everybody's mind! Although some people think of it as nothing more than a booze fest, there have been full time positions that have been filled from such an event in the past.

new. It's probably not necessary to have around anymore; since there's enough else to attract people in, but it works well to keep with the old philosophy. The best part of the work atmosphere are the people, since I don't think in the time I worked there anyone was ever really too busy to help with a problem that I had. Everyone's around to help, and there are a lot of smart people there.

The Sandvine mottos:

Well there is the publicly well known one 'Work hard, play hard.' This just re-iterates the fact that at Sandvine we work hard but we also have a lot of fun stuff to do. Ask any of our co-ops, they'll agree with me on this one. But there is another which many may not have heard of and that's the main one we follow when it comes to 'work



Here is a little background information on Sandvine:

Sandvine Inc. is a networking equipment company based here in Waterloo, Ontario. The company went public 5 years after its inception in 2001. There are over 200 people working at Sandvine at any time and 15 – 20 of them would be co-ops. As far as what the company does, it develops and markets network equipment, targets its product line at Internet Service Providers and states that it helps ISPs save on bandwidth costs by controlling connection quality of high-bandwidth users, e.g. the users of P2P file-sharing applications. Sandvine products implement network traffic shaping and policing, and include support for both blocking new and forcefully terminating established network connections. Comcast is a high-profile customer of Sandvine who has come under fire from many subscribers experiencing degraded connection performance.

In my brief interview with Brad Siim [pictured], co-founder of Sandvine and UW engineering grad (Comp Eng '92), he had the following to say about these topics...

Reason for throwing these open bar parties [first 2 @ Weavers Arms and latest 4 @ Bomber]:

Well it's basically to get Sandvine's name out there. To make it well known that Waterloo has great career opportunities other than RIM. And moreover parties attract bright minds; this has worked in the past although recruitment isn't the main reason for throwing them.

Work environment at Sandvine:

The company tries to make it fun to work there, and they do a good job. There's a foosball table that is nearly always booked, this gives a good chance to take a quick break from the grind of the schedule. And the beer taps at work, while you really don't see too many people drinking up, it all just adds to the atmosphere. It's a holdover from when the company was quick small, since it's something fun and

hard': passionate, practical and the get-it-done. That's what we look for when we hire people, whether co-ops or full time.

City of Waterloo being ranked the Most Intelligent Community of 2007:

This does not come as a surprise to me; I knew we'd get this esteemed award even before we got it. That's one of the main reasons why Sandvine set up a base in Waterloo as opposed to anywhere else in Canada and around the world. Waterloo fosters a great environment that attracts top minds. And recruitment here is so easy, as we have a brilliant university in this city [talking about UW of, course] that produces the best grads and undergrads an employer could look for.

Managing P2P and BitTorrent connections and controversy involving Comcast:

Okay, here is an analogy 1: There is \$12 buffet at a restaurant in town and there are other customers are present. But there is one guy who comes in with a vacuum cleaner and sucks up all the food on the buffet table before the others can even get to it. The patrons are like 'WTF?'

Where the ordinary ISPs would have suggested that the guy be kicked out immediately, Comcast is like 'Hey man, you can bring that vacuum in but you can't use it all the time...' The main objective of this is to be fair to all the internet users, and in this case, this is achieved by limiting the people who suck up the bandwidth.

Finally, one co-op had the following to say about returning to Sandvine full-time:

Going back full time isn't that tough of a decision... It's a great atmosphere at work, and while the company has been growing fast and will probably be moving into being a "big company" somewhat soon, it still maintains a lot of history and culture as a start-up. So you get the best of both worlds. It is obvious why Sandvine was awarded the 'Canadian Business Best Workplaces in Canada 2007' award.

What's Life Without a Good Story?

ANDREW WONG
1B CHEMICAL

If I could squeeze my eyes, turn back time and return to that unusually uneasy November 5, 2007, I would in a heartbeat. But, unfortunately, I don't have special powers, a sword, and a Japanese accent to perfect the act.

Sound familiar? The character being referred to was Hiro, from the growingly popular TV series, *Heroes*. But, thanks to the writers' strike that has been ongoing for the last 2 or so months, what looked like a promising season has been cut short and watered down—leaving the public with a sour taste in their mouths. This story is common, not only to this TV series, but to countless others. Without new material, we, the scrutinizing public, have nothing new to entertain us. Us—the youth which relies on the entertainment industry to provide us the only relief we have in this otherwise trying time at university. I'm sure I'm not the only one to be extremely agitated about the extent of this ongoing feud.

Week 11, Day 77, Hour 1848, whatever you want to call it; enough is enough. It seems that, lost in translation here between the network executives and the writers, is the very impressionable and impatient public. Ultimately all it comes down to is who pays their salaries. Lost in the confusion is the reality that we the viewers are the ones boosting the ratings, and providing them with work. Where else would a writer's imagination get the ultimate exposure? Although the viewing public has and always will be the toughest critic of any writer's creations, we also are the most accepting. We are waiting to be taken into the realms of an intangible reality, waiting for a rollercoaster of emotions.

But to be fair, we should look at the logistics of the strike to truly understand where the quickest solution should be taken to end this otherwise demoralizing time for the entertainment industry. The Golden Globes were cancelled, and soon the Grammys; what's next, the Oscars? As of now, it seems that this whole struggle is at a standstill. Should the writers cave in first, they'll lose the new media rights and compensation they have fought so long for. Likewise, if the networks surrender to the writer's demands, then we will see the biggest power shift in the history of the entertainment industry. This is a battle of monumental proportions, not to mention monumental monetary losses (somewhere in the ballpark of 1.4 billion USD).

It's almost as if the writers have discovered a power they've had all along. This has turned into one of those questions that lead to more questions and never steer towards a definitive answer. Writers and Networks have spent the last 11 weeks arguing who is more important than the other. And with neither side backing down, only the public has been left to suffer. With writers not producing new material, and the networks cutting writing contracts, they fail to realize that those they stand to lose most are the loyal viewers.

As a writer, I don't demand a lot, just the satisfaction of readers reading my article. But, unfortunately, I don't represent the some odd thousands of writers that have dried up the ink, and deprived us of our television indulgences. Kind of sad isn't it? With the eminent loss of television shows, we have been left to scour for ourselves entertainment that hasn't already been banished to unbearable hours of re-runs. Oh well, I guess onto Week 12, Day 78, Hour 1872...

Frosh Leader Applications Now Open

ENGFOC
2008

While it might seem that Orientation Week 07 just ended a little while ago, it's time to start thinking about the next one already! The new EngFOC have been selected for 2008, and they are (insert drumroll here): JD O'Leary (Civil 2010) and Matt Tse (Chemical 2009) are Super-huges; Brandon DeHart (Mechatronics 2009) and Ross Ricupero (Civil 2009) are HEADCOM; and Meghan Galachiuk (Architecture 2010) and Andrea Lam (Architecture 2010) are HighArchs. We're all very excited to get going on Orientation Week 2008, and can't wait to get all of you involved as well as leaders!

Now that the FOC are in place and trained to be as politically correct as a moose, it's time to start selecting the other 200-300 engineering leaders for the week. Orientation Week Leader applications are now OPEN for all positions (Big, Huge and EDCOM). Check out www.eng.uwaterloo.ca/~foc for more information and a link to the application form. Applications close Friday January 25th at midnight so make sure you get going on it! Don't forget that if you are ap-

plying for Huge or EDCOM, you MUST sign up for an interdiction on the door of the Orifice (CPH-1327). These are optional for Big applicants, but if you would like to be considered in the event that there aren't enough EDCOM and/or Huges you should do one. Keep in mind that the interdictions will be happening this Saturday the 26th and Sunday the 27th starting at 11AM, so sign up EARLY for a good spot!

What's an interdiction you ask? An interdiction is a made up word that serves our purposes quite well, as we expect any applicants to Huge or EDCOM to do both an interview and an audition at the same time. Hence, an interdiction. During this interdiction you are all encouraged to perform as you will during Orientation Week, since for all intents and

purposes you are trying out for a role in the week long performance. Feel free to dress up, dress down, use a silly voice, suit-up, or any manner of other things to make you feel more in the Orientation Week spirit.

For more information or if you have questions feel free to e-mail us at: foc@engmail.uwaterloo.ca

Thanks everybody, now get out there and apply!



Detroit International Auto Show



ADAM HOWARD
3A MECHANICAL

At this year's North American International Auto Show (NAIAS), the overwhelming vibe coming from COBO hall was bargain performance. The highlight unveiling was the Corvette ZR1, the long awaited "super" Corvette. Bolted on top of its 6.2L small block V8 is a roots-type supercharger, giving it over 620 hp, a first for a production Corvette. Adding fuel to the ZR1's hot debut was its price, estimated at just over \$100k.



The "Super" Corvette ZR1

Over at the Mitsubishi booth, the Mitsubishi Lancer Ralliart was released, essentially a detuned Evolution in sheep's clothing. With 235hp, a dual-clutch automated manual and full time 4wd with an active center differential, the Ralliart is aiming to take the Subaru WRX's spot as the car of choice for rally wannabes on a budget.

Meanwhile, Audi announced the R8 V12 TDI, the first-ever diesel supercar. With a 6.0L displacement based on the all-conquering R10 ALMS car, the R8 TDI stands to shake up the current crop of supercars, and change the public's perception of what a diesel can do.

The NAIAS wouldn't be complete without the unveiling of a new slew of pickup trucks, and this year is no different. What was different, however, was the way they were introduced. While the 2009 F-150 was rolled out to applause on the main stage, the restyled Dodge Ram had a bit more agricultural traffic to deal with. The Ram was escorted down the main street to the front of the building by cowboys and a herd of cattle!

Along with the production car reveals, Detroit was full of the usual batshit-insane concept



The 235hp Mitsubishi Lancer Ralliart

cars. For the rich and clueless, there was the Maybach Landaulet, a half-limo half-convertible, completely useless luxury

barge; and for those who worship the Wankel, there was the Mazda Furai, a working, 3 rotor 450hp work of art on wheels.



The 450hp Mazda Furai

Better Know A Beer: Grasshopper



RORY ARNOLD
3A MECHANICAL

On the label of a beer brewed at the Big Rock Brewery, there is a picture of the brewery's logo, a cock, and it is surrounded by a ring listing all of the styles the company brews. If Wheat Beer is highlighted then you made an excellent choice in opening a Grasshopper. If you're still trying to figure out why I said cock instead of rooster, the logo comes from the Scottish expression "Cock o'the walk" which refers to a leader and is the best way to define the Big Rock Brewery.

Founded by Ed McNally, a native Albertan and lawyer turned barley farmer, in 1984, the Big Rock Brewery is one of most state-of-the-art breweries in the world and makes a world-class selection of ales and lagers. After closing up his law practice and becoming a farmer, he started growing two-row malted barley, which is what is most commonly used in German beers, and later took a seat on the Board of Directors of the Alberta Barley Growers. Two-row barley is best suited for ales, while six-row barley is the best choice for brewing lagers. And if you are drinking a beer brewed using four-row barley, I want you to take a fork and scrape the taste buds off your tongue; you'll be doing yourself a favour. This is why McNally wondered to himself why Alberta, known for its two-row malted barley, was a province full of lager drinkers. This combined with his disgust of domestic beers led to the formation of the Big Rock Brewery. In 1984 the brewery opened, brewing 3 beers: a traditional ale, a bitter, and a porter. Demand was so great that even the president would spend time punching the time clock in the company's youth. Today, the Big Rock Brewery is one of Canada's largest regional breweries and employs 140 people. The rock after which the brewery was named weighs 18000 tons and is a glacial erratic in the Foothills Erratic Train located east of Okotoks, Alberta.

Wheat beers are brewed using a combination of malted barley and malted wheat unlike most beers, which are entirely a barley product. In addition they are very lightly hopped so that the bitterness is kept to a minimum. Originally, wheat beers were outlawed, as wheat was rationed for apparently more important products such as

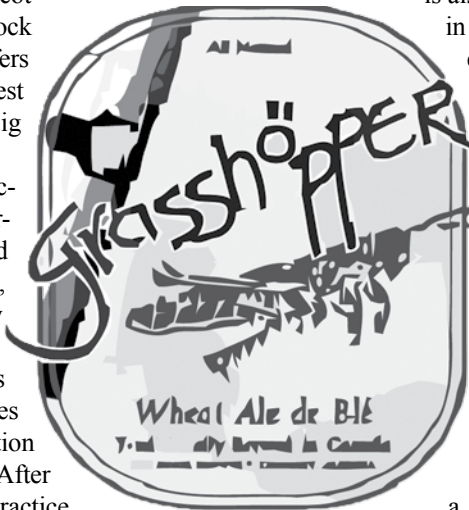
bread. Also, wheat beers were originally not allowed to be brewed under the Reinheitsgebot, the German beer purity law of 1516, which only allows a beer to be brewed using barley, hops, yeast and water. However, the royal family of the Degenbergers allowed the beer to be brewed under a special decree. Grasshopper is a Kristallweizen, which means it is a filtered wheat beer. This is opposed to an unfiltered wheat beer where the yeast is left in to continue to act after bottling. Wheat beers are a traditional German style, which uses wheat or a combination of wheat and malted barley. There

is also a wheat beer brewed in Belgium called Witbier, which means white beer. When cold, the yeast proteins stay suspended in the beer and cause it to look white.

Grasshopper should be drank out of a wheat beer glass or a tall narrow pint glass. A wheat beer glass is a tall 500 ml bottle with a bulb at the top. This allows

a head to form and the bulb traps the flavour at the top, so you get the full taste of the beer. Like other wheat beers, Grasshopper will form only a slight head, although it will remain around for the duration of your drink to help seal in the flavour. The beer should be poured quickly to establish the head, and if you are drinking a Hefeweizen, which is an unfiltered wheat beer, and I highly suggest you do, swirl the last little bit to pick up the sediments from the bottle and transport them into the glass. Serve Grasshopper with a lemon wedge on the glass as per the German tradition for this style of wheat beer. The lemon will also accent the acidic nature of the beer, providing a refreshing drink. When lifting the glass to your nose you are met with only a slight aroma of a wheat field. It is a pale golden colour and is sweet and citrusy to taste, which will quickly leave your mouth. I think this beer would be perfectly suited for a hot summer day as it is light and very drinkable, however, I think it falls short when compared to a Hefeweizen. Grasshopper goes great with most dishes but is most commonly served with light meals such as pizza. It makes a great beer to drink with lunch. I give Grasshopper 8/10 as it is a very good product from the Big Rock Brewery, but falls short when compared to other, similar, beers.

I hope you learned more reading this article than you would have learned if you had been paying attention in class instead of reading an article about beer.



Lab Review: Pulley



ALEX GIROUX
3A MECHANICAL

By the time you're reading this, the term is well under way, and if you're anything like me, you've probably got a fair bit of work to do already. Personally, I tend to do my work in one of the many computer labs around Engineering. On my last academic term I spent many long hours in the Wedge Lab, which became a sort of second home to

me. There were days when I considered changing my mailing address.

However, this term Wedge is undergoing renovations, and the quest for a new place to finish my work report and do assignments began. It ended about five minutes later when a classmate informed me that a new lab named Pulley (CPH 2367) was now open, in place of the old Gaff Lab. So away we went.

How does Pulley measure up, you ask? Below is my very unscientific review of the Pulley Lab, based on my many, many long hours spent in the computer labs.

Pros:

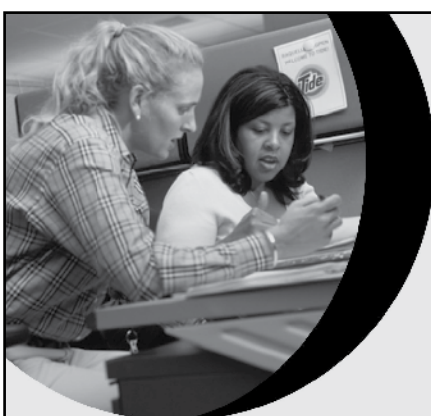
- +Lots of new computers. Twenty-four of them. There's also a printer. Unfortunately I haven't had a chance to use either the printer or the computers yet, so I can't say what they're like.
- +Plenty of table space to spread work out on.
- +Power outlets are easily accessible from most or all of the workspaces if you prefer your own laptop.
- +Clean! And shiny!
- +Windows and decent lighting. Between these two the lab is actually pretty well lit.
- +Close to the C&D, source of the most precious coffee. Need I say more?

Cons:

- Temperature. The biggest reason why I haven't been spending more time in Pulley is that it's cold. Really cold. Which would make it a really good place to get work done in, say, July, but it's January and there's snow on the ground.
- Busy. It's a new lab. It's a good lab. And so that's where people will tend to go to work. If you can get there when it's quiet, it's awesome. That really goes for all of the labs, but some labs are better than others, and as such, will fill up fast.

Overall:

I have a fuzzy warm tuque, a mug of hot tea, and a pile of work to do. Pulley seems as good a place as any to do it. And if it's full, well, there're always other labs.



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EngSoc Semi Formal!



Appearance by the TOOL!!!

Where: Knights of Columbus, Waterloo
When: January 29, 2008 6:30 - 11:00 pm
Tickets Available in the CPH Foyer at Lunchtime and in the Orifice

Tickets are \$30 - Includes Dinner and Dance
Cash Bar Available



HUMOUR AND SATIRE

Love in the Time of Alcoholera

The Adventures of Dangerman



Dear Reader,

To begin with ... someone crapped on my heart.

Not literally. There isn't a "2 Girls, 1 Dangerman, 1 Cardiologist" video circulating the internets (there is a certain EOT video from Winter '06 with bad censorship on Google Video though ... Dangermom wasn't happy about that one).

Figuratively however, someone has definitely slapped me cruelly with that big wet stinky dead fish called, "rejection". Imagine Humphrey Bogart in Casablanca, "standing on a station platform in the rain with a comical look on his face, because his insides had been kicked out ..." Okay, maybe not that bad, I didn't lose Ingrid Bergman after all ...

(Ingrid Bergman is probably number 2 on my all-time-top-5, "Too bad they're dead, but if they went zombie, I'd totally

hit that" list. A caveat of this list is that the song "Thriller" must be playing during any-and-all zombie-love making ... Thanks PDEng!)

But I digress ...

Rejection ... now that is one rotten fish for whom I've admittedly been both "slapper" and "slappee" on many an occasion. Still, despite our long and illustrious acquaintance, it is also a fish to whom I'd like to one day part company.

So, you might be asking yourself, "What!? Dangerman wants to drop anchor? Start nesting?" Not particularly! "Feelings are boring, kissing is awesome!"* There's a good chance I've just listened to Desperado by the Eagles way too many times ...

Still, lately I can't help feeling this bizarre pressure to find that, "special someone". You know the one, she doesn't kiss like a Labrador Retriever, and only tries to poison/stab me in a teasing-loving sort of way. Maybe a few other things too, I don't want to be picky ... I guess Dangerman's biological clock is ticking (that or maybe one of those surgically implanted bombs again) ... and no mat-

ter how many illegitimate danger-boys & girls who call me Paterfamilias (I can tell they're mine, they all breath fire ...) I guess I'm just not feeling as satisfied as I once did with my lifestyle.

I think I blame my friends for all this. There comes a point in your life when everyone in your close group of friends will start "getting together". It's like a big sexy game of musical chairs, only this time the results have a sense of finality to them. No one says anything, but you can feel something has shifted. They're not just messing around, your friends have made decisions about each other, and unless something goes seriously wrong, they're probably going to stay that way. Which is great for them, don't get me wrong, but when your life feels like a big jigsaw puzzle and everyone else has already been put where they're suppose to go, you start to worry if your piece somehow wound up in the wrong box ... damn mechanical engineers and their sloppy manufacturing processes.

I guess my biggest complaint in this whole mess is that I really don't understand girls at all. Still, I suppose if I did,

that might take a lot of the fun out the game.

A former Editor-in-Chief of *The Iron Warrior* upon reading my adventures once screamed at me, "The Iron Warrior is not your own personal blog!" Looking back on this article I want to laugh and tell him, "Well now it's a personal ad!"

"If you would rather have Molotov Cocktails than Piña Colodas, then I am a Dangerous Man seeking two arms to cling to and something warm to come to, when the nights are cold and lonely. Murder, mystery, and Kung Fu ... I am the greatest swordsman who ever lived.

Interests & Hobbies: cooking, yogalates, shameless self-advertisement

Mild latex allergy, but don't worry, it just causes swelling..."

So, till next time, I hope your romantic endeavours are significantly less embarrassing than my daily life, and if not, start writing for *The Iron Warrior*!

Sincerely,

Eric.dangerman@gmail.com

* T-Rex on Dino Comics by Ryan North (www.qwantz.com)

Dear LowRider...



Well boys and girls, 'tis another school term and of course time for some fun. There are beers to be drank and pubs to crawl to, and of course some advice to be dished out. Before I get to any of the letters, I have a letter of my own to send to the person living next to my room:

Dear MFer,

Stop playing your crappy ass guitar at all hours of the day and night or at least turn down your f'ing amp. Honestly, I appreciate the fact that you are trying to get into music, but if you suck at guitar, don't f'ing blare it so loud that I can hear it on both floors of my house. Nobody wants to hear you play the same part of the same song 400 times with the exact same mistakes in it. I hope your roommates deconstruct your amp so that I don't have to come over there myself.

Sincerely \LR/

Now that that is out of the way, on to the main attraction.

Dear LowRider

I am a 4B student and thus will be graduating in a little under four months. I am happy to be done but I have a slight problem... I have no idea what I want to do!!! I have gone to some full-time interviews and applied to some grad programs but I don't know what to choose. What would you do, in your infinite wisdom?

Sincerely Doubtful and Distraught

Dear Double D

Well, you are facing a junction that we will all come to at some point in time in our university career (well, that is if you all make it there). So I have compiled a handy dandy list from which you can choose:

A) Go to Grad school. Spend more money and more of your youth on learning things that may (or more likely may not) be useful

B) Join the nine to five world and spend your life becoming the next Dilbert

C) Do nothing. That's right- sit around Waterloo and run a speakeasy for the froshies to make ends meet

D) Start your own business. Make work your life.

All our good options, but I am assuming that option D is not one you'll be taking, considering you can't even decide what to do on your own.

\LR/

Dear LowRider

I just turned 19 a few weeks ago and I wanna go out on the town, but I have no idea where to go! Do you have any suggestions for some good bars? Thanks in advance

19 and Lovin' it.

Dear Barely Legal

There are a multitude of bars to choose from in very close vicinity. Here is a breakdown of what to expect from a few of them:

Mongolian Grill: You may think 'why would I drink at a restaurant?' but \$8 pitchers on Wednesdays might change your mind

Bomber: Wednesdays are the most pop-

ular night despite cheap domestic beer on Fridays and Saturdays

Phil's: Do you like cheap drinks on Fridays? The slight eau de vomit? Moderately easy girls? If so, head on down.

Ethels: Cougars, anyone?

The Silver Spur: How does getting drunk and singing your favourite song


sound? It sounds amazing... but only to you. And maybe you'll be lucky enough to start a fight too.

\LR/


Alright boys and girls, that's all for this instalment, 'till next time,

Later Days,


\LR/



POETS Mug \$15.00



T-Shirt - \$15.00




Mouse Pad - \$5.00

Novelties


~~11:30am - 12:30pm~~ 1:30pm

Monday - Friday

Beside POETS



Girl's T - \$20.00



Bargain Bin \$1.00

and so much more...

profQuotes

"They built a highway right through the rift valley. That's kind of cute."
- Galena Morozova, CIVE 153

"You need to know each of the transistors in these circuits very well - probably better than your mom and dad."
- Bosco Leung, ECE 439

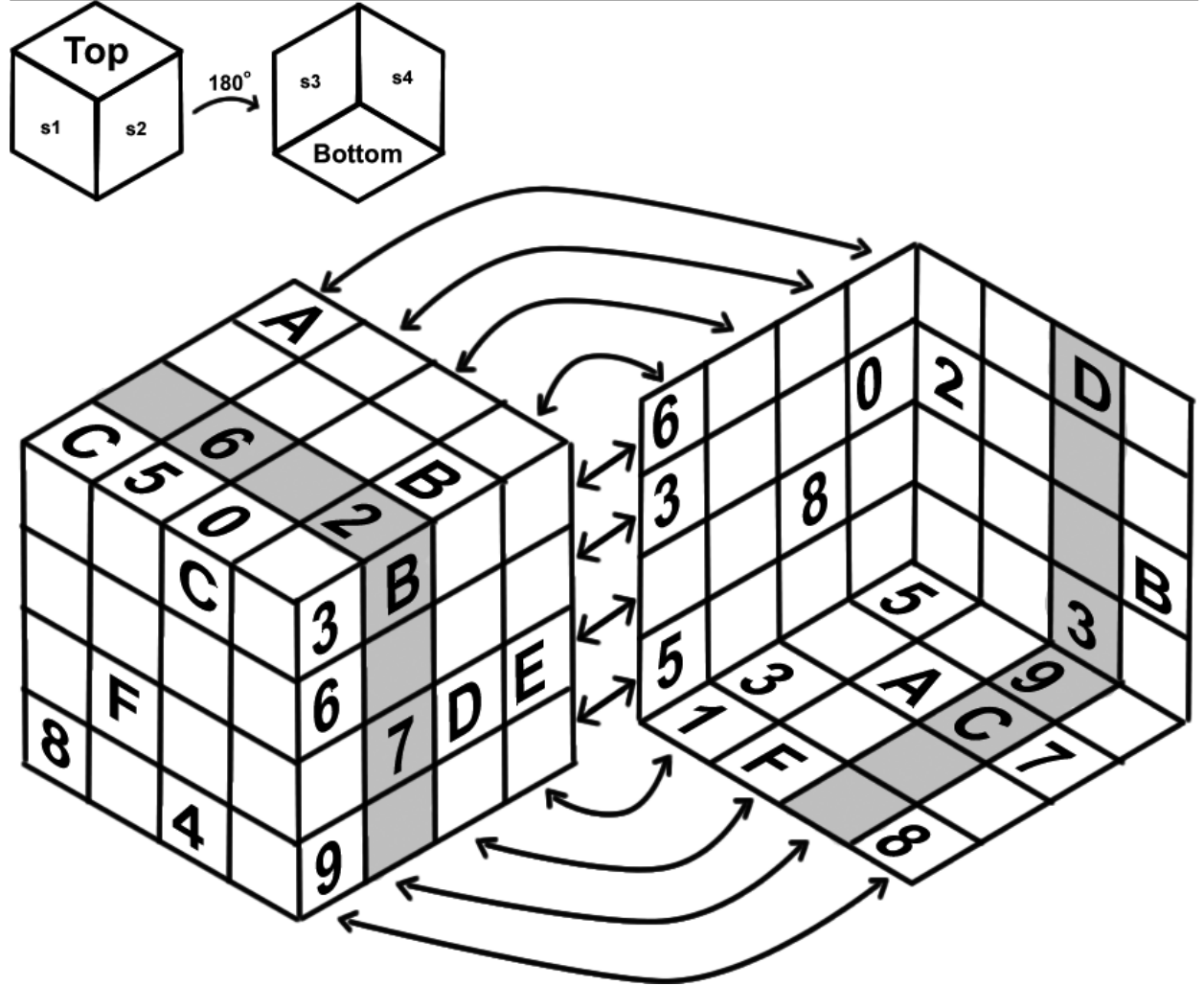
"I know you're in 4B and you're thinking 'I'm out of here - I have my job lined up.' But you still have to get through me and pass the course. Well, not through me, but past me. Don't go through me please."
- Ajoy Opal, ECE 443

"Is everything okay?...Should I pull out my gun?"
- Serge D'Alessio, Math 212

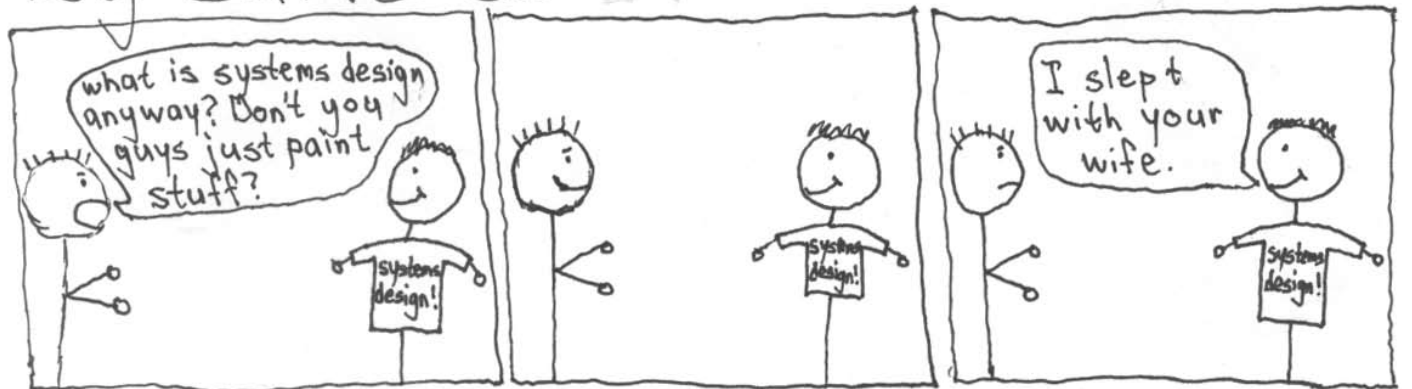
"We're interested in the step response, not the impulse response. No one goes around giving impulses to people - with the exception of if you take a big capacitor to a party and set it down on a table. Then you'll be giving an impulse to everyone!"
- Daniel Miller, ECE 380

EngSudoku Cube

On each face and on each layer of the cube there can only be one instance of each of the 16 hex digits, fill in the blanks! A layer is filled out in grey in the picture below - the arrows should help you determine where they layers are!
A prize will be awarded for the first person to complete this successfully.
Submit your answers to our Suggestion box outside of the Iron Warrior
Puzzle made by Alexander Grant, 2A Systems Design



systems design engineering
by: dane corneil



Midmorning Wednesday
MICHELLE CROAL
2A CHEMICAL

yi
xi
Why?
What?
A jumble of numbers
A list of steps
That somehow relate

Going in circles
I feel like I'm stuck
As a bug on a Surface
Of my Math 217 homework

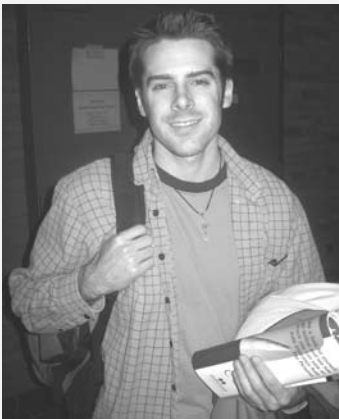


Thing is,
It's not calc today
And that makes my life
A whole lot more confusing!

The Iron Inquisition

we ask. you answer.

"What do you think the biggest news story of the year will be?"

Stuart Pearson 1B Civil

 <p>Allan Gibb 4B Systems Design</p> <p>"The US presidential election."</p>	 <p>Vinuk Fernando 3A Mechanical</p> <p>"The new batman movie!"</p>	 <p>Aileen Cash & Jason Ng 2A Geological & 3A Mechanical</p> <p>"A black or female president?"</p>	 <p>Bruce Fournier 1B Civil</p> <p>"Passing 1B."</p>	 <p>Dave Halford 3A Mechanical</p> <p>"Tyler Gale will become President of the United States."</p>
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