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the iron times

CSES's official publication - since 1998



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ONE RING TO RULE THEM ALL

Grad's celebrate after the long wait for the promise of cold iron.



COVER BY NOLAN HUNDER

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Amazing Feats of Engineering

BY TREVOR “DEEPTHROAT” IRWIN

For this article we are GOING BACK IN TIME!!!!

Welcome to the year 1809, the place Lisbon, Portugal. Our hero Arthur Wellington, the Iron Duke of Wellington, is troubled. After The British Expeditionary force commanded by Sir John Moore was driven to a disastrous retreat, along with his stalemate at Talavera, the fate of the British Empire was looking uncertain. Yes the French were coming; yes that’s right the French. Marshal André Masséna and his Armée Du Portugal - 65 000 men strong - was advancing towards Lisbon, soon to conquer all of mainland Europe. More and more it looked like the future of Europe would be full of baguettes and Napoleons. With under 35 000 trained British troops to ward off one of the greatest French Generals, Duke Wellington needed a

game changer.

Hint: He won.

Enter the Lines of Torres Vedras. Lisbon is located on a narrow peninsula that has very hilly terrain, perfect territory to bottle up an opposing army. The Lines had in fact 3 lines. The first stretched 46 kilometres from the village Alhandra to the Sizandro estuary, the second line was 13 kilometres behind the first and stretched 39 kilometres and bound the villages of Póvoa de Santa Iria to Ribamar. The third line ran along the banks of the river Tagus for 3 kilometres from Paço de Arcos to the Tower of Junqueira.

The name is somewhat a misnomer: the Lines are not solid along their entire lengths, rather they consist of heavily fortified chokepoints with fortresses on strategic hills. Rivers were dammed to create artificial swamps, hills were made into escarpments, and walls were

built (some up to 16 ft high). A total of 126 forts and redoubts were finished when the French arrived October 11th, 1810. The redoubts were built to garrison 200 to 300 troops with 3 to 6 12 pound cannons. These redoubts were protected by a trench, sometimes reaching 16 ft wide and 12 ft deep, and a parapet 8 to 14 feet thick. Roads were built behind each line allowing the main British force to move quickly around in order to contain any breakthroughs.

While this is interesting to some of you the real amazing part is that the entire line system took 11 months to build. And only cost 100,000 pounds. 11 MONTHS!!!! To build 88 KILOMETERS of fortifications.

The French managed to take a grand total of one fort before winter forced their retreat killing half the army in the process. And that is why the French lost. Forever.



Map of Lines of Torres Vedras. | | Graphic From Wikipedia

What CASG Does for You

BY JON “ENERGIZER BUNNY” WONG

The Carleton Academic Student Government (CASG) functions as an intermediary between students, faculty and administration, allowing students to influence the University’s administration and governance. Senate is the final academic authority of Carleton and makes decisions that can affect all students and faculty.

CASG is often mistaken for being an entity of CUSA but is in fact a separate organization. It is a non-political organization only taking positions on issues of academic significance on campus, as opposed to CUSA which often takes political stances that may not appeal to its entire membership.

CASG is given power by the University Senate to elect students in all departments across campus to their respective departmental boards. These include departmental boards (SCE, DOE, MAE etc.), faculty boards (engineering, architecture etc.) and Senate. In the Faculty of Engineering and Design, the role of representatives is filled by members of CSES council.

So why does any of this matter? Simply put, CASG is the official voice of students on all academic issues and is recognized by senior administration. The Executive of CASG works with senior Carleton University administration officials improve conditions for all those with a vested interest in Carleton’s development. This gives the organization influence on the direction Carleton takes in the future. This could be as simple as a new program, or sitting on a selection committee for a Dean. An influence we wouldn’t otherwise have without CASG.

Organizations like CSES can lobby the Carleton for change, but these organizations lack membership on the bodies that make these decisions. Want to really influence where the entire University, including the Faculty of Engineering and Design goes in the future? Easy, get involved with CASG.

If you want to learn more about CASG email the Faculty of Engineering & Design Coordinator at fed@casg.ca.

CEC

BY CALEIGH “SCARLET FEVER” RUTLEDGE

The Adventure Began with a Plane, and ended with a callsign.

So I don’t even know how to go about writing this article. Because right off the bat, I was supposed to provide my callsign, and sadly, I don’t know what mine is anymore. See, the wonderfulness of PBP may be shortly replaced, mostly due to my own gallivanting at OEC that caused CEC people to tease me, and eventually re-sign me. It’s very sad. Anyway.

So the adventure of CEC 2012. First off, I’d never been farther west than Yellowknife before this trip. And I must say, damn those mountains are cool! But I did find that I was less inclined to ogle the mountains when I was worried about getting mugged. Vancouver is a very shifty place people. All in all, I realized from this event a few things; how little sleep I’m going to get next year on this weekend, that we should book the ENTIRE place our night event is held at, and that breakfast is a really tough meal to serve (apparently). But I also learned how cool the competition is, and I hope that you all decide to compete next year, because I hear that Dean Gubran wants 1st place across the board. Get ready C-Eng: it’s the C-Eng Games next year (Hunger Games style). I seriously hope that’s the handbook theme. Seriously.

For More Coverage...

Hunt down Caleigh or Kevin and ask them how CEC is going and how excited they both are about organizing this event.

This story is definitely not at:

irontimes.engsoc.org

Sustainable Energy Symposium

BY SEBASTIEN “SNAPSHOT” TRACZYK

On March 8 I travelled to Kingston to attend the Sustainable Energy Symposium at St. Laurence Collage. This was the first year such an event has been held at the college, and overall it was well organised and very successful.

Here are some main points I took away from the conference:

- Kingston is the most sustainable city in Canada
- There are 86 wind turbines on Wolfe Island in Kingston, making it one of the largest wind farms in Canada.
- Few places in Europe have large-scale wind farms like the one on Wolfe Island.
- The Canadian government is pulling the majority of funding from sustainable energy
- New sustainable projects will drop significantly over the next 5 years in Canada
- The incentives for private and public sustainable energy are all ending soon
- In the worst case, peak oil will occur in a few years; in the best case, 2040
- The world needs a transition fuel. The best candidate is natural gas.
- The thermal inertia of the ocean is starting to catch up, causing climate change.
- Solar panels’ downfall in Canada is snowfall.
- Solar is peak power energy, meaning it provides the most power

at highest demand.

- There is no market in Canada for sustainable energy.
- The Canadian Government is leaning more towards nuclear instead of sustainable energy.
- Energy provider executives need to change their mindset concerning sustainable energy
- To reduce costs, the middle man in sustainable energy needs to go.
- Smart grids are the future of energy distribution but will require complex logistics.
- Self-contained micro “neighbourhood energy grids” are a self-sustainable solution.
- A paradigm shift is required to fully implement a smart grid across the country.
- “Change is good... you go first.”
- “We should not focus on storage solutions for energy. We don’t need storage.”
- “Cheap storage of large amounts of energy is the next step of sustainable energy.”
- “Storage is the lynch pin of smart grids.”
- Collaboration with educational institutions is the best way to advance technology.
- Sustainable energy innovation is coming from the younger generation.
- The older generation currently controls energy generation and R&D
- Sustainable energy sources currently available are solar, wind,



tidal, wave, small/big hydro, geothermal, & biofuels.

- Renewable energy is inexhaustible, secure and low risk, environmentally benign
- Collaboration between companies is required to create distribution system for renewable energy sources such as solar, which requires photovoltaic panels, inverters and storage devices.
- There is no policy in effect in Canada for sustainable energy, nor is one planned.
- Europe is decades ahead of North America in their sustainable energy policies.
- Economic consideration has to be key in creating a sustainable energy policy.

I would like to thank the Carleton University chapter of CSCE for sending me to this symposium along with three other Carleton delegates. The speakers, presenters and overall content was very education and eye-opening. Also, the food was delicious.

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Correction

A reference and introduction to a not yet published article by Caleigh Rutledge on a trip to the tundra last summer appeared on the front cover of the February issue. This article was omitted from the February issue and later published in the March issue. This error occurred because of sleep deprivation of the editor-in-chief, and their underworked staff. The Iron Times regrets nothing.

Outgoing President

BY JAMIE “INVISIBLE MAN” BARRESI

Hey C-Eng! This is the last time you will hear from me as CSES President. I would first like to congratulate all of the incoming Executive and Council and wish them the best of luck! I look forward to working with you as an Advisory Officer next year. I would also like to thank everyone who attended the Annual General Meeting. Your input is invaluable in helping us gauge our performance this year and letting next year's Executive and Council know what you want fixed next year.

I also want to share with you certain changes implemented this year that you should take note of (especially if you did not attend the AGM). Several changes have been made to the CSES constitution concerning Council makeup and elections timing in order to make elections run more smoothly. Portions of the policy manuals concerning elections have also been revised, and an appendix added to help future Councils establish their election rules. While this may not seem like a lot, much work went into implementing these changes. Thank you to all involved in this process.

Thank you everyone for your support this year. For the last time this year, if you have any questions don't hesitate to contact me at asidwall@cses.carleton.ca.

Also for the last time this year... stay classy, C-Eng!

Outgoing Academic

BY MATT “SOAKER” MOLKOSKI

Hey Everyone!
Its my last report, I hope you all had a great year!
My portfolio is FINISHED! So if you have any feedback, email me at mattmolko@gmail.com. Other than that, good luck on exams and have a great summer!

Outgoing Internal

BY KEVIN “ASSBEARD” ATKINS

Hello All,
As the term comes to a close, I would like to recap all the great things that happened this year in the VP Internal Portfolio.

Elections were held for First Year Representatives and next year's Executive and Council. These all ran with minimal infractions and saw an increase in voter turnout to 13%! Applying what I learned as Chief Electoral Officer, I drafted several Electoral and Constitutional changes which I presented at the CSES Annual General Meeting. Should everything pass, I will have delivered on my main election platform.

In addition to General Meetings, I was also in charge of the Iron Ring Day Reception for all graduating students. As of this writing the event has not yet taken place, so here's to hoping it goes well!

Awards and Pewter Mugs were made possible thanks to my great dictator Owen Marsh. He will be VP-Academic next year, so buy him a drink at Reflections for all his hard work!

If you have any feedback for the VP Internal Portfolio, feel free to talk to Robert Stalker, incoming VP Internal.
BAI GUYS!

Outgoing Social

BY ERIK “CAULK TEASE” WILLIS

Hey Everyone!
I hope everyone that went to Reflections had a great time! Congrats to all the new grads and good luck in the future. To all our volunteers, I hope everyone had a good time at VAP. Besides those two events, not much has happened this month! That ends my term, so everyone congratulate Mike Debenedictis, your incoming VP Social!
See you all as President!

Outgoing Pubs

BY CALEIGH “SCARLET FEVER” RUTLEDGE

Sadly, the year is coming to a close. Well, not so sadly for me, because there is a lovely young lady picking up the VP Publications projects for next year. You may have heard of her: Kati Sidwall, no big deal...

So C-Eng, here's your promised last issue of the IT – just so you know, I published the following issues through this year: September, October, February, March, and April

So for those of you who hated on me a bit, I did get 5 issues printed, which is 2 off the record 7 currently held by the wonderful and gorgeous KStocks. Other than this IT, I'm working on the following things for C-Eng:

- I am CEC Co-Chair next year with Kevin Atkins (email chair@cec2013.ca to volunteer with us)
 - I'm transitioning current VP Pubs, as well as working on some old CSES legacy issues
 - I'm an Eng-Frosh Group-Co!
- That's all for now C-Eng. I had a blast, and I hope you did too.

Outgoing Finance

BY EMILY “LAP JUMPER” LEMAY

Hi everyone! For this year this is my last report, however you are stuck with me again next year! Focusing on this year right now, if you have received any funding from FALL or WINTER SGF please bring in receipts ASAP! I am setting the last day of exams as the deadline for submitting receipts. If the office is closed just slip the receipts under the front door with a sticky note with your Project/group name, the total amount of the receipts and who the check is to be made to. That is about it for me for this month, good luck on exams and have an awesome summer!

Outgoing External

BY KRISTEN “DOROTHY” JERABEK

Hey C-ENG,
I've had a great time this year as your external! Conferences are an amazing opportunity to grow and learn about professional engineering organizations, and I've had a blast at all of them this year. Make sure to keep an eye out for the dates of next year's conferences, and most importantly make sure you apply! Also, if you want to keep your own tabs on engineers across Ontario and Canada check out CFES and ESSCO on Twitter and Facebook. We've had a really successful year in my portfolio this year with Carleton growing into a well recognized name all over the country, and I know that Incoming External, Mel Blainey, will do an awesome job keeping that going. I've had fun traveling to Engineering Societies all over the country but as my callsign namesake would say "There's no place like home"! Keep it classy C-Eng.

Outgoing Services

BY KRISTEN “HOP ALONG” VAN DEN TILAART

Hey C-eng,
This will be my final report. I have been very busy lately, finishing the renovations at Leo's and in the office as well as developing a new Leo's policy. You will also be seeing Engwear at the beginning of next year and it will be fantastic. As some of you may know - or may just be finding out by reading thi - your incoming VP Services is Adam Morril. I will be working with him to develop plans for next year.

Anyways, it is time for me to enter the real world. Ciao.

Editors note: Kristen's final sendoff was supposed to be sayonara, but she was unfortunately unable to spell it.



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Incoming Pubs

BY KATI “SAUCY BEAVER” SIDWALL

I have a dream.

I have a dream that one day this newspaper will rise up and live out the true meaning of its creed: a publication to unite all engineering students; to break sociopolitical boundaries; to stand tall as enrapt students gasp at its nerve but bow in the face of its fearless exposure of our degree.

I have a dream that one day, against the grey Ottawa sky and the repetitive bricks of Mackenzie, the Iron Times will shine bright in full colour.

I have a dream that one day, amid the persistent clamour of McCoy’s Lounge, the hilarity of the monthly Iron Times YouTube Newscast shall ring out loud and clear.

I have a dream that one day at the yellow structure of the Quad, the sons of former engineers and the sons of painters, salesmen, scientists, teachers, musicians, and mechanics will be able to sit down together at the structure of brotherhood and share a laugh over the Iron Times; a laugh every single Goddamn month, a laugh over pages upon pages of quality content, a laugh on time.

I have a dream that one day the editor of the Charlatan will watch his clock, counting down the minutes until the Iron Times lands on his desk each month. He will open the cover to two full pages of columns, from writers with whom he now feels familiar. He will read a hilarious assortment of news segments on sports, politics, music, and technology – all from an engineer’s perspective. He will wonder if perhaps you do not need a degree in Journalism to be a fantastic writer.

I have a dream that one day I will mail my Father an Iron Times shirt.

But my dream does not stop at the Iron Times.

I have a dream about the Handbook: that one day every error shall be exalted, and every event appearing shall be made Canadian and engineered; the rough places will be made plain, and the crooked places will be made straight, and the glory of C-Eng shall be revealed through its cover.

I have a dream about the Passport: that one day, stamps will be distributed by Flightsuit Committee to all student societies; that every thinkable event and more shall be contained between its covers.

I have a dream about the Website: that one day the province of Ontario, sweltering with the heat of mediocre design and oppressive navigability, will be transformed into an oasis of graphical genius; a hub for news; a utopia of frequent updates.

This is my hope. This is the faith that I come into office with. With this faith I will be able to hew out of the mountain of mediocrity a stone of innovation. With this faith we will be able to study together, to drink together, and to be ringed together, knowing that the Iron Times has been with us along the way.

And so let the news ring from the prodigious eighth floor of the Minto Centre. Let the news ring from the great white wall of Leo’s Lounge. Let the news ring from the mighty tower of Dunton. Let the news ring from the haunted hollow hall of Oliver’s.

But not only that; let the news ring through the internet. Let the news ring through Facebook, through Twitter, through Youtube, through EngFrosh, through exuberant word of mouth, through the up-and-coming Iron Times EngWear, through the Charlatan, through the Ottawa Citizen, through the lifeblood of the Carleton Engineers.

And when this happens, and when I allow the news to ring, all students will be able to join hands and sing proudly in the words of our predecessors: “We are the Engineers!”

Incoming Academic

BY OWEN “BURRS” MARSH

Hello Carleton Engineering,

Firstly I would like to thank you for electing me as 2012-2013 VP Academic. My goals for the 2012-2013 Year are to increase the academic services provided by the society by

Incoming Finance

BY EMILY “LAP JUMPER” LEMAY

Hey C-Eng,

Its me again!!! You are all going to have to put up with me for one more year. In this coming year I would like to continue to improve the book keeping and continue to work with Cindy (the Ex-Ex-Ex-VP Finance) to completely reconcile all the previous years (we are making slow progress). I also want to make sure that the budget gets put on the website (I know that was my own fault this year, but I will change that). Next year as exec as a whole, we would like to see more money put towards student groups and information/network sessions hosted by other groups.

Incoming Services

BY ADAM “FANCY FEAST” MORRILL

Thank You for electing me to the position of VP services. I look forward to make CSES services a better place. I am really excited to work with the other incoming council next year. Here are my plans for next year.

- improve SGRC
- Bring in more volunteers into Leo’s
- Maintain a professional environment in Leo’s and the CSES office

Thank You Again

I look forward in surviving you the best I can

Incoming Social

BY MIKE “HOMEWARD BOUND” DEBENEDICTIS

Hello everyone! Very happy to be VP Social for the next year. I’m looking forward to coming up with new events and bringing back some old ones too.

I plan to run everything that Erik did this year seeing as how we had a great turnout to all the events. I would also like to look into diversifying and drawing a larger crowd to events.

Finally I would like to make C-ENG Bonspiel a possibility. It really hit me hard that we couldn’t go curling for a whole two years, so I’ll be working extra hard to get that done.

If you are interested in becoming a director then email me at mikedebenedictis@gmail.com.

Good luck on exams everyone!

Incoming External

BY MEL “TIGER” BLAINEY

“Hello C-Eng,

I want to first thank you for electing me to be your 2012-2013 VP External. My goals for this coming year are increasing the visibility of this position, raising at least \$5000 for charity and expanding the portfolio to include some inter-school competitive events. Some cool stuff to look forward to this coming year include lots of advertising for conferences and conference applications, post-conference reports on the website and elsewhere, information sessions on CFES and ESSCO, and guest speakers from PEO and OSPE each term. A couple new ideas that you will see are a charity thermometer tracking CSES’s money-raising progress and competitive events with Algonquin, uOttawa and maybe Queen’s. If you have any other fun stuff you would like to see your VP External doing, feel free to let me know via email or just stop me in the halls. Best of luck with exam season and I look forward to working for you guys next year. “

rejuvenating and making the textbook library and the Exam library accessible, and cleaning, removing damaged chairs and table, and increasing wireless signal in McCoy’s. Increase the middle and high school participation in NEW week. Well that’s all for now and I hope you all have a supa happy fun time summer!

Incoming Internal

BY ROB “MERLIN” STALKER

First off thanks for electing me as the VP Internal for the upcoming year - I’m really excited! The incoming executive has already had a few meetings and I think we have a really strong group with a clear direction.

As for some of the plans I have for my portfolio, I’d like to take a hard look at some of our policies this summer and see which need updating or revamping. I’m also planning on getting a team assembled to draft a vision and mission statement for CSES, and potentially set the stage for some strategic planning in future years. In addition to that, the method through which CSES selects directorships is something I believe could be improved and made more formal.

Overall I think this coming year will be one to remember and I am excited to get to work.

Incoming President

BY ERIK “CAULK TEASE” WILLIS

Hello C-Eng

First off I’d like to say thank you for saying Yes to Willis! I have a lot of good things planned for CSES this coming year, like increased visibility of my portfolio, and well as that of my entire executive team. I want a team environment because as Proprac taught me about teams, 1+1=3.

I also want to run informal brainstorming meetings with members so I can find out what you want in the society and your ideas for things.

That is all for now, so good luck on exams, and looking forward to seeing you all next year! Grads, congrats on getting your rings! Feel free to stop by and visit next year!

Last Year’s Executive



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Next Year’s Executive



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BY SEBASTIEN "SNAPSHOT" TRACZYK

After a quick lunch consisting of Dagwood sandwiches and pop, teams regrouped in the crushing lecture hall, where crushing was

A collage of 11 photographs showing students in various costumes and outfits, likely from a school event or competition. The costumes include a yellow and red hoodie, a blue jacket, a green and yellow outfit, a red and white outfit, a blue and white outfit, a green and yellow outfit, a red and white outfit, a blue and white outfit, a green and yellow outfit, a red and white outfit, and a blue and white outfit.

There was one team from the University of Calgary that decided to be clever and exploit a flaw in the rule book by building a solid column support out of popsicle sticks and placing that dead center in their bridge, which would result in an "uncrushable bridge." Troitsky provided their input on the situation and disqualified them. Another team to be disqualified was

Musical talent aside, there was a wide selection of songs sung by competitors from old school rap to new music and even Free Bird sung by none other than Greg Harrington. Before the after party, Greg Harrington skillfully applied well over 10 tattoo on a multi-year

But these scores are just mine, so do not in any way believe anything I have said so far and don't let it discourage you from joining up next year! □

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On April 1st, people worldwide rejoice in the fun of harmless deception, celebrating the art and joy of a well-executed prank. In warfare, however, deception is serious business. Successfully fooling the enemy can mean the difference between victory and defeat. Though misdirection has been integral to warfare since time immemorial, it reached its creative apex during WWII, when some of the most ingenious feats of military trickery were carried out. In honor of April Fools’ Day, here are the top 5 military deceptions of WWII.

5. Seeing the Factory for the Trees

From May 1944 onwards, the United States Air Force - operating from captured Pacific islands - conducted a devastating bombing campaign against Japan, decimating its industry and leveling many cities - including Tokyo. In desperation, the Japanese moved their factories to the countryside and occupied territories. To camouflage these installations, the Japanese lashed together the tops of trees using telephone cable. They then cut down the tree trunk, leaving a cavernous “hangar” under what appeared to be the regular jungle canopy - a natural camouflage net.

4. City of Lights

In September 1940, the German *Luftwaffe* began a massive bombing campaign against Britain (The Blitz) in preparation for the invasion of the British Isles. The Germans initially attacked by day, but the Royal Air Force eventually forced the switch to night bombing. While an effective night fighter force was being assembled, the British sought to divert German bombers away from their targets.

Early in the war, German pilots still navigated by sight, following moonlit canals and rivers and spotting city lights. In response, the British built large “Q Light” installations in the countryside to simulate entire towns and factories. These installations were elaborate, with white and red lights representing streetlights and furnaces, and arc lamps simulating the flash of streetcar cables. Moving lights on rails represented vehicles, and oil fires simulated bomb damage. The Q Lights proved surprisingly effective, diverting many German bombs away from real targets.

The British also tried coating rivers and canals with coal dust to camouflage them. This technique that showed great promise - as evidenced by the handful of civilians who walked into treated canals, believing them to be asphalt roads!

The Germans soon developed radio navigation aids, rendering visual deceptions moot. In response, the British deployed false radio beacons and other countermeasures in a navigational arms race known as the “Battle of the Beams.”

Gotcha!
The Top 5 Deceptions of WWII

Gilles “Nightstalker” Messier
-AERO V-



Inflatable tank used for the Operation Bodyguard deception | | Photo From Wikipedia

3. Tanks, but no Tanks

Camouflaging men and material in the European countryside or Pacific jungles is one matter. Doing so in the North African desert - a rocky billiard table with no cover - is another. This was the dilemma facing the British Army in the build-up to the 1942 Battle of El-Alamein. Tanks needed to be brought up close to the front line, but doing so would have alerted the Germans to the British defensive plans and invited airstrikes. The British also needed to store and camouflage fuel nearby.

To achieve this, the British Army turned to Jasper Maskelyne, a stage magician who had joined the Royal Engineers. Maskelyne had previously “hidden” the Suez canal using revolving searchlights that dazzled German pilots and a duplicate of the canal’s lighting built some distance away.

To hide tanks in plain sight, Maskelyne built plywood “sunshades” that, when attached to a tank, gave it the appearance of an ordinary truck when viewed from the air. These disguised tanks could be brought close to the front line without arousing suspicion. To camouflage the fuel, Maskelyne found an old trench lined with large stone blocks and replaced the blocks with sand-coloured fuel drums. As a final touch, Maskelyne built a fake water pipeline and deliberately delayed its construction, deceiving the Germans into thinking it would never be finished before their attack. In the end, these deceptions contributed greatly to the Allied victory at Alamein, which turned the tide of the Desert Campaign

2. The Man Who Never Was

In 1943, after routing the Germans from North Africa, the Allies turned their attention to mainland Europe. Sicily was the most obvious landing site, and it had been heavily garrisoned by the Germans. To convince the Germans that they actually planned to invade Greece, the British greenlit *Operation Mincemeat*, an unusual deception masterminded by Royal Navy Lt. Cmdr. Ewen Montagu.

The plan was to dress a dead body as a military officer and release it into the sea off neutral Spain, making it seem like the officer’s plane had crashed en route to North Africa. The body would be planted with false papers detailing the supposed invasion of Greece, to be hopefully be examined by German agents.

After acquiring the body of a man who died of pneumonia (which looks like drowning), Montagu crafted an identity for his fake officer: Major William Martin of the Royal Marines. To make the ruse believable, Martin was planted with ticket stubs, receipts and even a love letter. The false documents were placed in a courier’s briefcase with a wrist chain so they would not float away.

Martin’s body was carried in a canister of dry ice and reeled off Punta Umbria, Spain by the submarine HMS *Seraph*. The Spanish authorities buried the body and returned the papers to the British Attaché to Spain - but not before German intelligence photographed them.

The Germans swallowed the ruse, redistributing troops and tanks to Greece.

When the Allies finally invaded Sicily, it took the Germans two weeks to realize the attack was not a feint.

1. Bodyguard of Lies

The largest military deception in history, *Operation Bodyguard*, was conducted in support of *Operation Overlord* (D-Day), the Allied invasion of Europe. The objective was to convince the Germans that the Allies planned to land at Pas de Calais rather than Normandy.

To this end, fictitious military divisions such as the First United States Army Group (FUSAG) were “stationed” in Dover, across the English Channel from Calais. Radio traffic between fake military camps was broadcast, and inflatable tanks, landing craft and aircraft were even deployed to fool German reconnaissance aircraft. Much false information was also fed to German intelligence via the Double Cross system, a network of double agents.

On June 6, 1944, a decoy fleet steamed to Calais, towing barrage balloons to increase their size on German radar. The entire deception was so successful that the Germans retained troops in Calais for weeks after D-day, convinced that the real attack was still to come.

Honorable Mentions

The following deceptions were not included in the above list as they did not occur during WWII. They are, however, so unusual as to deserve special mention.

Piss-Poor Accuracy

During the Vietnam War (1965-75), the U.S. Army faced a daunting challenge: finding and fighting an elusive enemy hidden beneath the impenetrable jungle canopy. One of the more unusual efforts to track down NVA and Viet Cong forces was *Operation Snoopy*, the deployment of “People Sniffers” on patrol helicopters to detect bodily excretions such as urine, sweat or smoke from rifles. Once the Vietnamese learned of these devices however, they employed a simple and effective countermeasure: hanging buckets of urine in the tree-tops and moving to a different area. The Americans consequently dropped thousands of tons of bombs on empty jungle.

In Israel, Curious Cat Kills You

One of the most unusual weapons to emerge from Israel is the CornerShot, a folding adaptor that allows a pistol to be fired around corners. It is intended for SWAT teams or special forces. More unusual than the CornerShot itself, however, is one of its accessories: the Kitty CornerShot, a cat-shaped “sock puppet”. The Kitty Cornershot obscures the weapon’s barrel and causes opponents to do a ‘double take’, giving the shooter a few more seconds to evaluate their target and take the shot. □





It's Been a Long Time Coming

It's finally happened: after 5 years of University, 4 years of writing for the Iron Times, 3 years of editing its articles, and 2.5 years of designing its layouts, I am finally graduating. Iron Times, you and I have had a complicated relationship over these years. I have seen you shrivel up due to apathy and lack of content, threatened with termination due to excess unedited content, and stand as a shining fulfillment of your true potential. A lot has happened during my time here: Mackenzie field is now no more, new residence buildings have further encroached on our greenspace, Skunt was renamed Spirit, CUSA underwent the Shinerama controversy that made the news in Hong Kong, SOOPP actually participated in Engfrosh, DUSTED was discontinued by CSES and Flightsuit Committee to be kept alive only by SOOPP, SREEtards came into existence, two new seats were added to Council, Flightsuit Committee introduced the Seven Deadly Sins events (sort of), the C-Eng wiki (not the CSES wiki) entered limbo, and at least 4 CSES exec members have resigned.

I remember arriving at Carleton as a bright-eyed, optimistic, and energetic-first year (at least by my standards; weary, pessimistic, and underslept by everyone else's). I still have my white frosh t-shirt (somewhere) and have served as a facil for the four following years. I (by some miracle) attained flightsuit status at the end of first year just in time for a series of unfortunate events (including a car accident involving one of my heads) to delay receiving my flightsuit for a month. I remember Andrew Campbell Sr. when he was still in engineering.

Overheard at Carleton

Student 1: Do you want a job
Student 2: What Kind of Job? A Blow Job?

👂 👂 👂

Jamie: I don't want to be seen in the same shirt twice in the same week.
Nicholas: Heh... Gaaaaaayyyyyy!

👂 👂 👂

Guy: Are you saying my router is a euphemism for my penis?
Girl: No. Your penis isn't wireless.

👂 👂 👂

Student 1: What do you mean you drew math pictures on the test?
Student 2: I didn't draw math pictures, I just drew pictures 'cause I didn't know what to do?
Student 1: Did you get marks for them?

👂 👂 👂

Student 1: Asking out Emily LeMay: Like asking Stalin if we can set up a WalMart in Moscow.
Student 2: The Raven's Red Zone has recently been surpassed by Emily's Friend Zone as the largest fan club on campus.
Student 3: Emily LeMay, taking on all cummers since 2012.

👂 👂 👂

Student: This burger just lied to me.

👂 👂 👂

Engineering Student: Do you even know how arc welding works?
Non-Engineering Student: Rainbows!

👂 👂 👂

Prof: I'm gonna attempt to draw Europe.
Student: It kinda looks like somebody's tonsils.

👂 👂 👂

Want to say something? Post it at: irontimes.engsoc.org

I remember joining moonbuggy as a weary first year - not having any idea what was going on - and continuing with it for 3 years afterwards. I remember sitting down as Chair for CSES that first meeting where all my feedback consisted telling me I need to yell more. I remember finally being put on a Troitsky Bridge Building team after harassing the admirals for three months. And lastly I remember the very first Iron Times article I ever published.

Since then, I have toiled both at home and in Alexander's office through more nights than I can remember. During my term as Editor-in-Chief, I have written approximately 50 articles, been visible in 20 photos (not including this issue) - 3 of them on the front cover, created three different layout templates (two of which were only used once) and have taken an unfathomable number of photos. To date I still have yet to release an issue where I didn't immediately find errors as soon as I opened it.

I began writing for the Iron Times in a time when editors heeded few (if any) warnings about appropriate content. I was recruited as an editor shortly after that philosophy backfired- hard - and eventually rose to my current position because I kept harassing the (Right? Wrong? I don't know... relevant?) people whenever issues were delayed. The irony of this is that as a high school student with a 93 average, I passed English 12 and high school journalism (where I learned all this layout stuff) with only 75 %.

I have seen the Iron Times undergo several major changes since taking this position. Firstly, we introduced the Exec Reports (yes, those aren't that old). Secondly, the old 12ish-picture photo galleries were expanded to hold around 50 (or in this issue, more than 100). Lastly, ads were (re)introduced. I wasn't too keen on this at first, but ads do bring in money - and for those of you who are unaware: money is good.

Graduating is always described as that cliched bittersweet moment, and as we all graduated from high school once upon a time, we all know what it's like. My attention right now is mostly devoted to finding a job. 4 of the worst years or 6 of the best, as they say; I guess took the middle ground. One victory lap was enough for me.

This me signing off for the last time and saying congratulations to my fellow grads, good luck to next year's editors (you have no idea what you're getting into), and thank you to my loyal readers. I'm impressed you put up with me this long.

Nolan Hunder

Nolan "Pi" Hunder
Iron Times Editor-In-Chief 2010-2012
Fifth-year Aerospace Stream D

voicebox

Ohhh this is where people submit stuff for the "feedback loop" thing!

BLEEP!

I'm an angry person, and the Universe just fired its angry-seeking missiles.

BLEEP!

Some people just need a sympathetic pat... on the head... with a hammer.

BLEEP!

Belgians are good at two things... Brewing beer, and getting invaded.

BLEEP!

I don't want to live on this planet anymore, I'm gonna colonize the Moon. Wait that's too close, I'm gonna colonize Mars.

BLEEP!

AGM

Robbie is our chair, god help us all.

I'm 87.26% less mad.

He's the boss so I put my heels together.

Cows are female.

That's a majority consensus to me.

I would like to see the man speak first.

Will you take any steps to disband CASG?

If it's not done by next year, you can hang me.

All in favour of Anvil?

Hey, don't touch my gong.

Why don't we just elect another member to exec to decide where the money goes.

I got really drunk as a side note, because that's what engineers do when they get together.

Jamie wants to beat a dead horse.

AERO 4442

Feszty like festival, hopefully your course is like a festival

I think being a rocket scientist is better than being Brad Pitt, and in this course you could become one.

The correct term is rocket engineer, but don't say that on the first date.

This way we can skip through the equations and get to the nice pictures.

Concentrated solar energy, or something else science fiction like.

Why didn't they disect the surviving monkey? Just for you know...?

I think that is my favourite animal cruelty picture, because it was about wind tunnels.

I heard that people are laughing when coming out of this bloody surgery.

The lunar program was cancelled by President Obama in 2010. If you were american you would know how to vote.

While watching a video of the challenger "I wonder how it's going to end."

ELEC Class

If you're following what I'm saying, that's the key.

Next week you get tortured.

That's what happens in a microwave oven, that's why you don't want to put your cat in there.

You don't phase code a magnatron, you turn it on and run away.

English is the international language for aviation, doesn't matter if you're in Russia or whatever, except in Quebec.

There's just some words there.

Ok so this normally hurts people's brains.

They must have been drunk when they figured this out.

An engineer who thinks he can memorize equations is dangerous.

These tables meant something a long time ago.

In this kind of undergraduate education, you sit, I talk, you listen.

On Saturn you can see the back of your head, you wouldn't much like it though.

Fibre doesn't do much for a certain kind of user, called a mobile user.

I'm 94% sure I'm not saying anything wrong.

At absolute zero degrees, it's really cold out.

A trillion dollars, that's how much it would cost to bail out Europe.

SAF

Welcome to Montreal, home of the inconvenient snowstorm.

Alternative fuels, which may be topical tonight if you have too much wine.

Concrete, we see a lot of that here, falling apart.

When the maiden flight didn't crash, I was thankful I wasn't going to flip burgers for the rest of my life.

Given the uncertainties of composites, how do you feel about flying in a 787? With a parachute?

voicebox

Ohhh this is where people submit stuff for the "feedback loop" thing!

BLEEP!

I'm an angry person, and the Universe just fired its angry-seeking missiles.

BLEEP!

Some people just need a sympathetic pat... on the head... with a hammer.

BLEEP!

Belgians are good at two things... Brewing beer, and getting invaded.

BLEEP!

I don't want to live on this planet anymore, I'm gonna colonize the Moon. Wait that's too close, I'm gonna colonize Mars.

BLEEP!

Spelling mistakes make me [sic]

BLEEP!

Thus proving that all browsers if configured correctly are cookie monsters.

BLEEP!

You have some very annoying habits, breathing is one of them.

BLEEP!

Go back to "Toba where you belong.

BLEEP!

Maybe I'll just go get drunk, that made things turn out best.

BLEEP!

She drank half of my happiness.

BLEEP!

I didn't know exactly what it was doing, but I knew it was doing a lot of something.

BLEEP!

Help I can't remember what I was supposed to submit here.

BLEEP!

Also, its been countless articles and the editor has yet to make the 'r' in iron times a gun. C'mon.

BLEEP!

Oh, he doesn't like to eat with the undesirables.

BLEEP!

Karma takes too long; I'd rather beat the crap out of you now.

BLEEP!

CALL 1-866-600-7067 TRY IT!

Chasing Your Tail

So as the year draws to a close, the time has come to write what may be my final Iron Times article. Again I will set the stage, as while most of you will have experienced the following, it is always good to commiserate.

Imagine that a sadistic professor decides that your weekend looks a bit too free, and endeavours to end your fun with an assignment. As a student with reasonable expectations, you set an entire day aside for this assignment. However when that day finally rolls around and you sharpen your pencil, it feels like the axe is about to come crashing through your skull. Oh Exedrin, what would we do without thee.

The first attempt fails miserably. How, you exclaim, could you possibly know that this assignment would roll thermo, fluids, and dynamics all into one question (seriously; I can show you the question)? No matter, you think: you are smart and can puzzle your way through it. How hard can it be?

It is then that you glance at the sun - oh my, where did it go? You move the tall stack of rejected papers (wasn't this supposed to be an environmentally conscious course?) but are still unable to find it. It seems you are in for another long night.

It is now that the madness begins, for you are no longer searching for "the" answer - any will do. You start choosing truly random methods, dabbling in every type of engineering field you can think of. Feedback Controls to solve a fluids problem, anyone? It couldn't hurt...could it?

Yes. Yes it can. It is many hours later when you see the light at the end of the tunnel: a solution that seems to be working. You suddenly realise, however, that the light is the sun rising on Monday morning.

Thus ends another weekend in fourth-year engineering. Have fun, third years.

Olivers' Defecit

What can I say about Ollies? The idea of that place making money has become so much of a joke that the one time I heard of them not running a defecit came as such a shock to everyone that at first no one believed it. But the question I must ask is: "Why is this?"

With the exception of Mike's Place, which is tiny by comparison, Oliver's is the only place on campus to buy alcohol - a fact considered very important by most engineers. And with a student population of not only over 9 000, but over 20 000, the vast majority being of age, there is no shortage of potential customers. Especially at the end of exam season. We've even worked verses about Ollivers into the engineering hymn.

Now despite its ideal location and vast student customer base, it still has this nasty habit of running a defecit. Why is this? I'd think that anyone who knows anything about running a bar or restaurant, would be able to turn major profits on this.

Let's now compare it to Leonardo's Lounge (AKA Leo's). Leo's doesn't have a liquor license, is located on the second floor of Mackenzie, the vast majority of artsies have no idea where it is, makes Mike's place seem big by comparison, and has prices that puts everywhere else to shame. Leo's is a zero sum business, it isn't technically non-profit, its plan is to adjust its prices to make them as cheap as possible while still breaking even at the end. Because of this, there's some debate over whether it's a business or a service. That however is not the point of this.

Leo's, for several reasons including distance to the closest female washroom, will never be able to obtain a liquor license. Us engineers have demonstrated through Leo's that we know how to run a business. In my entire time spent here, while Leo's has had some controversies, all have been minor by comparison, and it has never run a serious defecit.

So now I have this apparently not so revolutionary idea: CSES should buy Olivers. This idea is not so revolutionary as I'm told it has been looked at in the past. But I'd argue that the combination of our logic based approach and love of all things beer related make us the ideal candidates. We could use it either as another service like business, or as a method of making money for CSES. In either case, it is an easy way to address the problem of CUSA having to bail out Olivers in the near future. Using our fees to continuously bail out Olivers is something I'm sure no one wants to continue.

irontimes poll

Should CSES buy Oliver's Pub?


Vote online at the **FEEDBACK LOOP**

Last Issue: Is CUSA productive?

Yes: 1 per cent Unsure: 6 per cent No: 78 per cent Don't Care: 12 per cent What's CUSA?: 3 per cent



Couchsurfing



Chris Henninson is a fourth-year SREE student who says couchsurfing is a great for way students to travel on the cheapl.

Couchsurfing: "A social network tool for travelers to use while voyaging on the cheap". - Urban Dictionary

The practice of couchsurfing - popularized by its eponymous website - is the kind of thing your mother would think is too much fun. If you're going to a city where you've never been and don't know anyone, you can start an email correspondence with someone who lives there and, if you like each other based on that, sleep on their couch during your visit.

Spending the night at the house of someone you met online a few days earlier might seem scary, but so might sharks and airplanes. It's polite to review everyone you meet through couchsurfing and you can't delete reviews from your account, so it's pretty easy to get an idea of whom you're meeting. If you're worried but curious enough to try anyway, remember that trusting your instincts is the best precaution.

I first heard about couchsurfing through a newspaper article when I was living with my parents in East Walton, Nova Scotia. It's hardly a popular tourist destination, and I didn't meet anyone through the program at the time. But it seemed intriguing - I filed it away, hoping I'd get to try it out sometime.

Sometime turned out to be several years. I was living in China, teaching ESL in Wuxi, a smallish (by Chinese Standards) city near Shanghai. I had copious free time- the lesson plans consisted of "which flashcard shall I introduce tomorrow?" - and I had personal contact with only a small community of expats (my coworkers at the school were friendly, but our conversations were limited). So I thought, why not make a couchsurfing account now? I filled out my personal data, set my status to "probably has couch" and forgot about it for a few months.

A few months later, I got an email from a pair of friends who wanted to visit Wuxi. I responded saying I'd be happy to host them. And soon I had a pair of couchsurfers staying in my apartment for a few days. It turned out they were both engineering

students. Since I was going to start studying engineering that fall, I was glad for the opportunity to pick their brains, and they helped me get over my worries about university level math. They were very nice - we had a fun weekend as I showed them around the local attractions.

With that experience under my belt I decided to try using couchsurfing as a traveler next. I visited two more couchsurfing hosts during my time in China. In Shanghai I visited the antiques market and played D&D for the first time with a game designer and his friends, and in Beijing I stayed for a weekend with a local student. He came down with something after we agreed to meet, so I was my own guide for most of my time there, but it was still great to know someone and not have to pay for a hotel.

I used couchsurfing once more, right here in Ottawa. My flight arrived the day before I was scheduled to move into residence during my first year, so I contacted some hosts near the university. It turned out one of the people I wrote to actually worked at the university. I had a fun evening and morning and I learned a bit about Ottawa culture, including the wonderful practice of curbsshopping. He even offered to drive me to campus. With move-in weekend in full swing, there was no way he could park, so we said our goodbyes in the car and I jumped out with my luggage as he came to a rolling stop. I had barely made it off the sidewalk before I was greeted by a group of smiling purple people who offered to carry my suitcase. It seems no matter where I go, people are friendly.

Engineering Pleasure

As recent events have dictated, a need has arisen for modernized sexual education in today's school. It turns out that those caricature-like pictures you saw in middle school don't quite cut it, and so I have spared no quarter in uncovering the truth. Over the next few issues, the Sex and Health section will be tailored towards educating the modern student on the ins and outs (pun intended) of being sexually active.

*This opinion has been edited and condensed.
For the full version, please lobby against censorship.*

the iron times

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The Texas Navy

BY TREVOR “DEEPTHROAT” IRWIN

Yes that is right. Texas has a Navy.

Normally I would just leave it there but I feel this needs more ridicule. Texas has purchased 6 gunboats to patrol the Rio Grande. Why? MEXICANS!!!!

That’s right, the Texans are going to war with them dirty job-stealing Mexicans.

These gunboats are basically Vietnam era military craft. This is a direct quote ““They have night vision capabilities, they have ballistic shielding, and the first couple of boats have fully automatic machine guns,” department spokesman Tom Vinger told Reuters.” Each boat has 3

300 horsepower ultra-quiet motors. In fact the actual armament consists of five static mounted M240 light machine guns, a pair of Barrett .50 sniper rifles. There are also various rifles, submachine guns and grenade launchers on-board. Just in case.

Okay seriously. WHAT THE FUCK!?!?! How is this at all reasonable? I’m all for giving police tools to keep them safe but these boats could take on a Panzer division.

The “need” for these monstrosities is the interception of drug smugglers and illegal immigrants. Unless the Texas Highway Patrol (which operates the boats) is going to go up and down the Rio Grande shooting every boat their presence is a symbol of gross overreaction. □



The example 34-foot-long gunboat, has bulletproof plating and six mounted machine guns, similar to the river patrol boats the US Navy used during in Vietnam | Photo From <http://www.thetruthaboutguns.com>

Anatomy Of A Charlatan

BY MARK “TODD” STRUMMER

The Charlatan has long been the rival newspaper to the Iron Times and The Vena Contracta before it - so much so that outside the walls of Minto and the Mackenzie, the Iron Times’s existence is often forgotten or not even acknowledged.

The Charlatan Newspaper has been around for as long as the University. Its distribution is 2800, it comes out weekly, is on average 16 pages long, is always in colour, and has a staff of 15-20 that actually get paid.

The Iron Times by contrast has a distribution of 400, comes out monthly if we’re lucky, is usually 12 pages long, is black-and-white with spot-colour covers (with the exception of the year-end issue), and has a varying single-digit number of volunteer editors.

An Iron Times is put together primarily by engineering students in-between their classes and assignments. A Charlatan is put together by a staff of primarily journalism students paid to be there. An Iron Times receives its content from anyone who has a free moment to write us something, the rest being filled in by the editors. A Charlatan has a team of writers and photographers who plan out many of their contributions, attend events solely to report on them, conduct interviews, and actually engage in real journalism.

During the creation of this issue, a large number of Charlatans were studied in great detail. Much time was sacrificed to understanding their methods. While many details of how a Charlatan is created or operates are still a mystery, some consistent trends have been identified:

The first is the number of columns. The Iron Times consistently divides its pages into three columns, allowing for reasonable, eye-pleasing column widths. The Charlatan is less consistent. The most common column division is 5, which creates strange skinny columns that give the illusion of longer articles. In addition, due to their overuse of ads, they sometimes have to use four columns. And randomly they create a three-column page for the heck of it.

The second trend is the font size. The Iron Times uses a 12 pt font size, which is easy to read at a distance but still small enough to allow for reasonable length articles. A Charlatan uses a tiny font of 9 pt. The reasoning behind this is still unknown, but for my colleagues with less than perfect vision, it induces considerable eye strain.

The third detail worth mentioning is ads. Admittedly, Iron Times issues have been sliding down this path as well, but there is one important difference. Now that we’ve reached a critical mass with ads, an Iron Times will place all the ads on one two-page spread so they are easy to browse through. In a Charlatan the ads are scattered throughout, cluttering up the rest of its content. A Charlatan still typically has a lot more ads than an Iron Times.

Fourth is there obsessive nature of credit. I think this comes from having an army of editors. Here at the Iron Times, we credit all written

articles to their authors as well as WTF of the month photos, and photographers of sleeper of the month. The Charlatan gives credit to every article, photo, graphic, and lay out, except their in their Op/Ed section. Picture our photo gallery doing that.

Lastly, an unexpected find. Within a Charlatan’s legal disclaimer is a bizarre joke endorsement: “The Charlatan’s Official (insert noun here) is (insert random thing here). In honour this bit of randomness, the Iron Times has issued its own list of endorsements. Below you will find The Charlatan Official ... and next to it, The Iron Times Official ... □

The Charlatan’s Official:	The Iron Times’ Official:
Conundrum is stylistic or error?	Conundrum is Iron Ring vs Wedding Ring?
Kick off to the school year is a crotch shot from DWW.	Kick off to the school year is Dirty Sunday.
J-society tradition is mentee Pokemon battles.	J-society tradition is Leo’s Euchre tournaments.
Spirit animal is the goat.	Spirit animal is Cindy Bear.
Weapon of choice is whipped butter.	Weapon of choice is the CSES Battle Hammer.
Clothing choice is lumpy fall sweaters.	Clothing choice is the Flightsuit.
Favourite chair is Chris Herhalt’s rant chair	Favourite chair is the Enterprise Captain’s chair.
Angry bird is Cullen Bird.	Angry bird is Warbird and its knights.
Catch phrase is “Bitch, we’ve met before.”	Catch phrase is ERTW.
Sex-ed program is South African TV news.	Sex-ed program is Law And Order: Special Victims Unit.
Presents: to Jane, a job as a foreign correspondent covering the Arab Spring; to Jess, all-you-can-eat Swiss Chalet with extra dipping sauce; to Cassie, a one night stand with Drake.	Presents: To Nolan: A bottle Of Scotch. To Caleigh: A Red RMC dress Uniform. To Gilles: An autographed poster of Thomas Edison.
Comfort garment is the snuggie.	Comfort garment is Chain Mail.
Boxing strategy is hitting people in the dick.	Boxing strategy the Drunken Boxer.
New hit radio show is The Asian Couch.	New hit radio show is Good Morning Vietnam.
Condom peddler is Carol Kan.	Condom peddler is Ron Milner.
Cheer is “Suck a Bag Of Dicks!”	Cheer is “Cheat To Win!”
Regret is not making the sunshine list.	Regret is not being able to report on the Iron Ring Ceremony.

Goku Vs Superman



Visualization of the Epic Fight
| | Graphic From <http://www.aerislives.com/>

BY THERRON “DIAMONDS” LEHMAN

Goku and Superman are two guys who inspire others to do good deeds, Goku gets almost no credit for the things he does, and Superman in the alter ego of Clark Kent gets no recognition. There is no time in which these two would fight each other in anger, so in a confrontation certain ground rules would obviously be emplaced, no killing being the biggest one. In this fight we will have Superman as he is (there is no real specific time where he is significantly stronger) and Goku will be right after his fight with Kid Buu where he is his strongest.

It is well noted that non-humans have already confronted Superman and fought him, so there is no argument saying he will out outright win; likewise with Goku he has also fought non-humans successfully. During the fight Goku will want to fight Superman with him being full power because of his Sayan nature, therefore he would not use kryptonite at all in the battle. Superman would not use any of his lethal moves so laser eyes are out.

Superman’s best bet would be to use the frost breath and freeze Goku before the battle really began, but Goku would likely employ an energy attack to keep off the cold. In a battle of speed Superman can fly faster

than 1500m/s (a bullet’s speed) which is about four and a half times faster than the speed of sound; yet this does not create a sonic boom so either his speed is greatly hyped or he defies all physics, also since Goku can essentially teleport I will go with the latter. Goku also ran Snake Way in two days, the equivalent of 5700 m/s or Mach 17, this is when he was considerably weaker than after fighting Kid Buu. Clearly Goku wins in speed. At regular power Goku can handle several tons, where Superman can easily lift thousands of tons no problem, thus for Goku to even try to match Superman’s strength, he needs to go Super Sayan 3 (which he can’t do for prolonged periods of time) while Superman gets his power from the yellow sun. On any planet with a yellow sun, power goes to Superman.

In the end it comes down to this: can Goku finish Superman with enough damage so that he can’t get up, and if that condition is met, can he do it fast enough? I believe the answer is no and even though Superman probably would have a hard time hitting him at first, Superman would win. That being said, with enough training it is inevitable that Goku would eventually beat Superman because of the nature of Sayans getting stronger quickly. It’s just a matter of time. □

SREE Design Competition

BY DYLAN BARDY

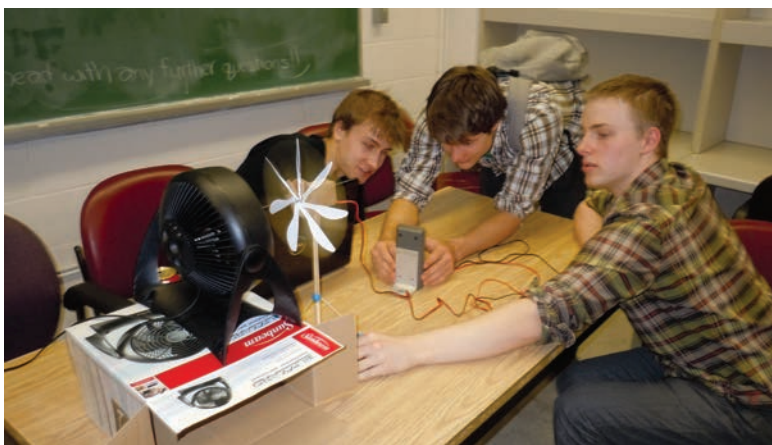
On Saturday, March 17th, 2012, the Sustainable Renewable Energy Engineering Society hosted their third annual design competition, bringing four teams of students from various streams together for a beautiful afternoon of creative ingenuity, efficient design, and commemorating Saint Patrick. But before the kegs could be tapped, each team set out with an allotted budget to design and build a wind turbine (of all things!) for the purpose of generating the most voltage. The leading wires into the cars were too heavy to allow the cars to move. Instead, a voltmeter was used to measure the potential of the wind turbines. DERP.

Having only simple materials to choose from, the challenge of the competition was to design a wind turbine that could not only harness the most power from a portable fan, but used the least amount of purchased material. Returning for

another taste of SREE design glory, winners of the previous two competitions, "the Eco Terrorists", had produced one of the competitions most materially efficient designs featuring the only blades of the bunch to rotate about a vertical axis. This compact design however, didn't allow them to score that elusive hat trick.

A team of aerospace students known to the competition under the witty alias, "the Aeros", created a turbine sporting blades that somewhat resembled the wings of a pterodactyl. Made of paper, these blades were discovered to produce a higher angular velocity after a little trimming. Unfortunately this was discovered after the testing period had closed. Like any C-Eng event, the day wouldn't have been complete without a pizza party, which was almost crashed when a wild pizza thief appeared. Fortunately, the judges acted quickly, and distracted this individual with the remedial job of turning the lights on and off. It was very effective.

The wind really picked up when



Team Blow Me testing out their design. || Photo By Nolan Hunder

a team of SREE-tards by the name of "Blow Me" unveiled their asymmetric seven blade design, resembling something you might find in (pre-jail time) Martha Stewart's garden. Puns and dirty minds aside, this design appeared to be in the lead terms of voltage output until "Team # 1" took the stage with their winning design. Featuring Sarah Wert, Chris Henningsen, Andrew Scherr, and Michelle Chiasson, Team # 1 designed

a turbine that not only produced the highest voltage of the competition, but used the least amount of material out of every design. [This is not technically true. The Eco-Terrorists used the least amount of materials]

The SREE Society would like to congratulate Team Number # 1, and thank all competitors for coming out to this competition. Until next year C-Eng! □



BY LAURA CRESWELL

Take a moment to look around the room you're currently in. Chances are you're surrounded by fellow engineering colleagues whom like yourself are working hard to gain an undergraduate degree in some discipline of engineering. We have all heard from teachers, parents and fellow colleagues that engineers are in high demand and that jobs are just waiting for us at the end of this degree.

As true as this may be, what separates you from the other 450 students graduating each year from this institution? Your GPA? Doubtful. Your fourth year project? Maybe. Reality is that 80% of jobs today don't get advertised, according to CNN [1]. This means that while you may prefer the traditional approach to finding a job (emailing in resumes to multiple companies posting positions) there are better, more effective ways to get your career off the ground.

How you may ask? Through networking. When I mean networking I'm talking about going out to professional events and talking to people in the industry. In a world now dominated by social media and competition, engineering companies can no longer sustain themselves with only high tech socially quiet engineers. Client service and communication skills are being looked at as an asset when hiring new engineering graduates. Having these skills in place by graduation will differentiate you from your fellow class mates. Going out to networking events and meeting potential employers may give you that chance to tap into that 80% market of jobs that no one else will get a chance to view.

I hope by now you are convinced that networking is essential to finding a job during and after graduation. The next step is to find out where to go. A perfect start would be getting involved with Carleton's ASHRAE Student Chapter. ASHRAE is the American Society of Heating, Refrigeration and Air conditioning Engineers. Every third Tuesday of the month 60 professionals within the HVAC industry meet-up, network, have dinner and present a topic of interest to fellow members. This society encourages students to come to a meeting for free to see if they are interested in networking with current members as well as building on their knowledge on current engineering topics. Regardless of your discipline, coming to these meetings is an opportunity to master your networking and communication skills. In the process you may find yourself being offered advice and referrals to a range of opportunities never advertised to the public.

For more information on Carleton's ASHRAE Student Chapter, please email ashrae.carleton@gmail.com. □

For More Coverage...

Please harass VP Publications to get something posted on the website for the first time this decade.

irontimes.engsoc.org

Fitness Corner

BY ERIK "CAULK TEASE" WILLIS

As promised, I'm writing another article! I am currently doing a program called "Mad-cows". This program has nothing to do with bovine spongiform encephalopathy; it is just some guy's user name on a forum. It is similar to Starting Strength in that it is based on 5 reps, but instead of 3 working sets it has only 1. I am trying this approach because doing heavy squats 3 times a week was killing me. This program gives me a light squat day, which feels like heaven. Since starting this program I have increased my 5 rep max on all my big lifts, so I have to say it is working well.

Going to the gym often means I see a lot of stupid shit, so I am going to rant about it.

- Squats are meant to be done with quads parallel to the floor or below. If you can't do it with your current weight, lower it and try again.
- Bench pressing is not a team sport. If the guy spotting you is getting as much of a workout as you, you are doing something wrong.
- When doing a seated calf press, you are supposed to use your calves, not pull the handle with your arms.
- The gym is not a place to hang out with your bros; I need to use the equipment you are chilling on.
- If I ask you for a spot, I don't want your hands on the bar. If I need your help you'll know it.

That ends my rant! Since this is the last Iron Times until next year, I'm going to briefly go over some summer goals. In my opinion everyone should set fitness goals for themselves. These needn't be big goals, just little ones that will keep you motivated as you reach them. Quantifiable goals are also great because they are easier to measure. For example, a 225lb bench press is a better goal than, say, a chiselled chest.

Have a great summer everyone and good luck with any fitness goals you may have! □



BY THERRON "DIAMONDS" LEHMAN

Well, since I didn't get any comments based on my last review, I am going to assume one of two things: either everyone loved it and had nothing bad to say, or they saw book review and didn't bother to read it at all. I will assume the latter (illiterate pricks). Today I will be reviewing something more likely to interest the audience: video games. Now I could cater only to those who play games since PS1, but who cares about you. In this article I will talk about four video games, two from the Turbo Grafx 16 and two from the SNES (admittedly one of these was released after the PS1).

Before I rate the games, I will go into slight detail on the Turbo Grafx 16. It failed in general because of lack of third party support and good first party games. The console has a terrible controller schematic that makes playing games a nightmare. The first game being reviewed is Military Madness, a turn-based strategy game where there is a war on the moon between the Axis and Allies (ironically Hudson Soft is a Japanese company; one could guess that they were not doing the translation to English). As the Allies, you must go through twenty missions where there are various ground units, tanks, vehicles, artillery and aircraft that have varying strengths and weakness. During the moving phase, the units have hex grids that they can move through. Depending on their type, they can move long or short distances. During the attack phase, you attack generally when you have superiority. There are three main ways to have superiority: the obvious case is to outclass the opponent; a group of tanks will destroy people, next was terrain bonuses; certain surfaces increased attack because your men had high ground, and lastly, placement bonuses; if you had men behind their troops and attack from the front, their defence

drops and you get massive attack advantage. To win a map, you have to either capture the base or annihilate your opponent. The AI was that of a mentally challenged mouse, but it was made up for by having superior starting troops. Once you win the campaign, you can play as the axis, which is like beating a child in a boxing match.

The next review will be considerably shorter to make up for the previous one. Keith Courage is a boring game that is too short and too easy. It's like Mario, Zelda, and Bomberman made a hideous love child that only a mother could love (seriously, the only person I know who can tolerate this game is my mother).

Now on to the SNES based games. The first is King of Dragons; it is a side scrolling game with fantasy type characters to play with. Your mission is to save the world from an evil dragon. You fight all types of mythological beasts from the hydra to giants either by solo play or co-op. This game starts off easily enough, but if you die early, odds are you won't make it. The health bars have increments because when you use magic, it eats a good part of your health, but the trade-off can be worth it at times. To beat this game (I've only ever done it once, with a partner), be prepared to play for hours because there are no checkpoints.

The final game is Killer Instinct. You know when you're on a message board and people are rambling on in what is called a combo? Well when people say "C-C-C-Combo Breaker," you can thank Killer Instinct. It is a fighting game like literally any other, but I would play this over Mortal Kombat any day. Each character has a back story, but they consist of things like graduating with an arts degree. To see them just wait at the title screen. The true beauty of this game is that button mashing will not guarantee success. There are moves that if you can take the time to learn, will make it impossible for

the masher to win. In single player mode, all you do is work your way up a ladder of every character until the last three. Two of them are playable and then there's a final boss that induces fits of rage; the amount of rage that comes from him is incomprehensible. Picture this: it's stronger and faster than you, can shoot rapid fire, and you can't block any move. In multiplayer there is either vs. or tournament. In tournament, you have a group and input names then the game will make a tournament in which people can play one on one for group supremacy.

I'll finish off this review with the same arbitrary style as last one, but with an added bonus, I will tell you the best way to play these old games.

Military Madness



PSN, Wii Virtual Console, XBLA, or Rom. You could get a Turbo Grafx 16, but don't waste your money

Keith Courage



If you seriously have to try it (believe me there is no point) there is only Rom.

King of Dragons



SNES, (very hard to find) if you do not have a SNES buy one. As another option, there is a rom.

Killer Instinct



SNES, (very hard to find) Same as above, at the very least have a joystick if using Rom. If you have an N64, there is Killer Instinct Gold (with worse controls).

Well that's my review, now for those of you lucky enough to know me, I have two copies of Killer Instinct, one is for sale. Til next year. □

Year End Crossword

[illegible]

Across clues

Down clues

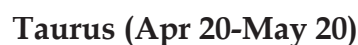
1. Erik Willis next year.
5. Michelle McGarrety winner.
7. Most SOOPP worthy first year.
9. Flying speed of an unladen swallow.
10. Next year's Editor-In-Chief.
11. Wait, you're not in engineering?

1. This happened to Molko.
2. Returned after 3 years to win Best Staff Member.
3. SOOPP event Thursday April 5th.
4. We can finally call ourselves a real degree.
6. SREE design competition winners.
8. We know how magnets work and how planes fly.

Horoscopes



You will suffer a loss this week.
Thankfully you were blessed with two
kidneys.



We actually meant the answer was b, not c. Sorry about that.



Creativity is one of your strong suits. You will find out shortly that the exception to this is creative accounting.



After exams you will find yourself standing on a tall ledge. Don't follow Van Halen's advice.



They say engineering is either the worst 4 or best 6+ years of your life. This is only applicable to those who successfully stayed in engineering.



After the results of the lawsuit, certain stars have gone bankrupt and are no longer able to provide predictions.



Something vague may or may not happen this week that may or may not apply to you.



Next week you will take a trip to a wonderful health resort full of happy people, attentive staff, fully stocked pharmacy, and padded walls.



You will discover this week that there is such a thing as a free lunch, though it is recommended you share with your cellmates.



You will see many people walking around in gas masks this week. Yes they know something that you don't.



If neither advil or tylenol help with your exam headaches, a power drill purchase is foreseen in your near future.



This week you will finish your bucket list, the last item of which is kicking it.

Wasted Talent

<http://www.wastedtalent.ca>



Abstruse Goose

<http://abstrusegoose.com/>



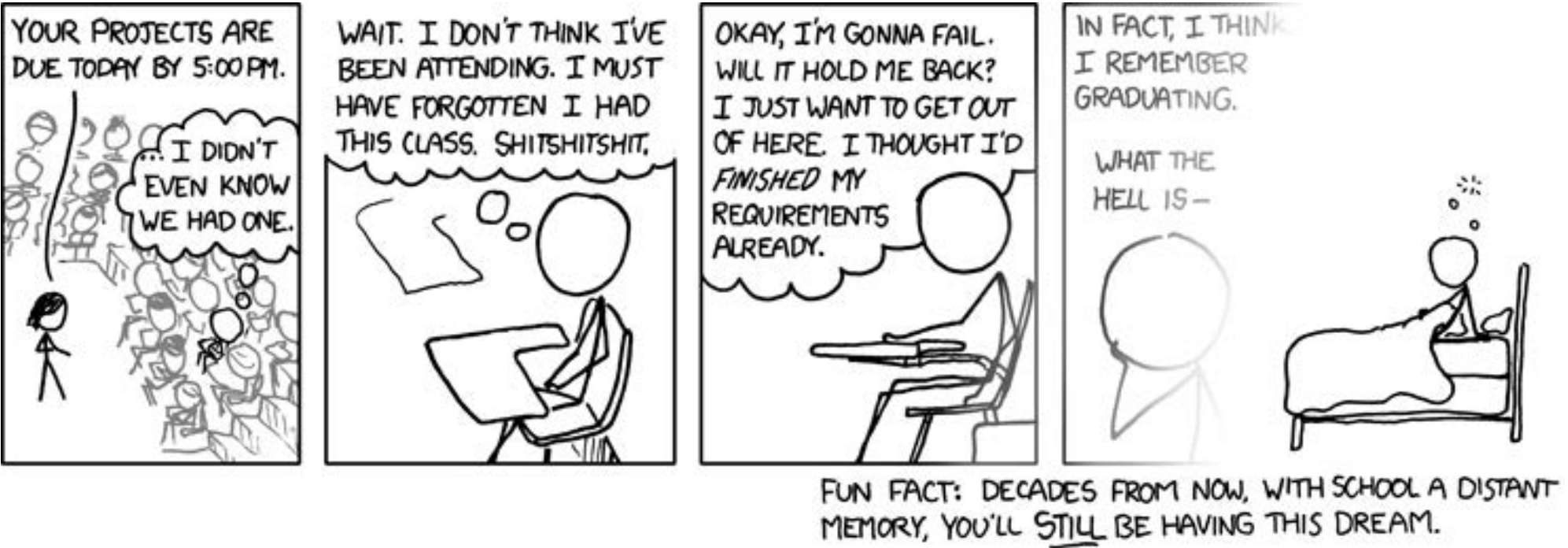
Mac Hall

<http://www.machall.com/>



xkcd

<http://www.xkcd.com/>



Uses For The
Charlatan

- BBBBWWWWOOOOONNNNGGGG!!!!!!
- Emergency Toilet Paper.
- Padded barriers for testing Crash Test Dummy.
- Make party hats to be ready for the invasion.
- Great for housebreaking pets.
- Cutting out letters for your ransom notes.
- Give to the homeless for wiping windshields.
- Wrapping for your illegal organ transplant sales.
- Look up the definition of a charlatan, coincidence?
- As a floormat for wiping your boots.
- Pirate hats, no event is complete without them.
- Camouflage in foreign artsy territory.
- Propping open doors in Mackenzie at night.
- Wrapping around candle bottoms.
- Lighting torches for angry mobs.
- Hamster cage linings.
- Fireplace logs.
- Emergency confetti.
- ~~You can read it.~~
- ~~In Soviet Russia, charlatan reads you.~~
- ~~In Soviet Russia, iron times shut down you.~~

Sleeper of the Month*



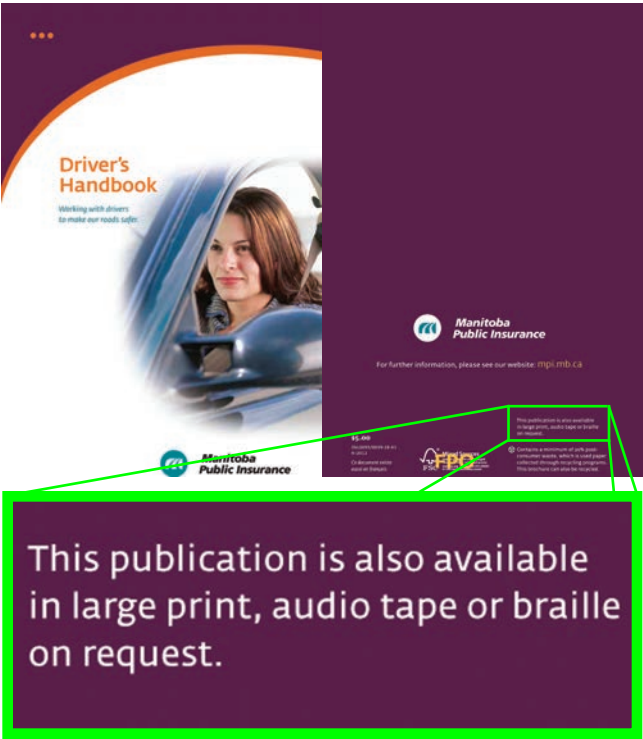
Upon arrival at EngLove everyone was offered beer and love straight away, then shuttled to a house party. At said house party there were kegs. Then Later in the night (about 1AM) Saj (Sajedan SelvanayagamPillai) started dosing off. Everyone let it slide for the first hour or so but then someone quickly pointed out his shoes were still on. Adam Morrill got a black marker then returned saying “We need a white sharpie”. Hilarity then ensued as several people then promptly marked him up.

* Sleeper of the month is entirely consensual and submission based. All people appearing in this section have given prior consent and have been informed in advance that their picture will appear here.

Tinkle The Dog

Once upon a time, there was a dog named Tinkle. Tinkle was a very tall dog, with fairly long brown hair. Tinkle liked to mess up people’s hair and throw pencils. He also peed in beds. Tinkle gave people piggyback rides but was too heavy to be given a ride himself. This made him very sad, because Tinkle was very, very lazy. He didn’t like going up stairs and took the shortest walks possible. He also liked pushing people over and not letting them get up. Tinkle liked watching Dr. Who, and wearing his favourite Dr. Who sweater.
Dogs are often like their owners! Guess who Tinkle’s owner is...

WTF Of The Month



Above are the front and back covers of theManitoba Driver’s handbook. On the back cover there was a small section of interest. A small green box was placed around it with a zoomed in image. Apparently not only is this publication available on audiotape, but also in braille.
I can understand it being available in audiotape as in this fast paced world some people find it more convenient to listen to books. However I must ask, why do these books have to be available in braille? Do we really need instructions for teaching the blind how to drive? The thought of a blind person driving (apart from an entertaining mythbuster episode) is a very scary thought. Not only do they print this, and not only do they mention that it’s available in somewhere in the publication, but they specify it on the back cover. Is it really that important to get the blind driving?

Upcoming Events - April

1	2	3	4	5	6	7
April Fool’s Day	International Children’s Book Day	The first portable Cell Phone Call	International Day for Landmines	<u>SOOPP Event</u>	Tartan Day	World Health Day
8	9	10	11	12	13	14
Draw a Bird Day (DABDay)	Vimy Ridge Day	Maiden Voy- age of the Titanic	<u>Exams Start</u>	Yuri` s Night	Lao, Cambodian, and Thai New Year	Black Day
15	16	17	18	19	20	21
Jackie Robinson Day	Harriet Quimby flies across Eng- lish Channel	World Hemophilia Day	Champions Day	Bicycle Day	4/20	Founding Of Rome
22	23	24	25	26	27	28
Secretary` s Day/Earth Day	Canada Book Day	<u>Exams End</u>	DNA Day	World Intellectual Property Day	World Graphic Design Day	Workers Memorial Day
29	30	1	2	3	4	5
International Dance Day	Bealtaine Eve					

Watch out for the next

See you next year!

September 2012