Free Pizza!
Also, ESS General Meeting

Want to have a say in how your Engineering Students’ Society will be run this semester? Interested in getting involved in the ESS? Want free pizza? Or just really like meetings?

If any of these things apply to you, come to the ESS’ Semesterly General Meeting! The SGM will be held this Wednesday (Jan. 11) at 2:30 PM in the ELW lobby.

This is a great chance to get involved in the ESS, regardless of whether you’re a first year, a bridge student, or a battle-hardened senior. Several positions are open this semester, or you can volunteer as a director-at-large. Either way, this looks great on a co-op resumé. There will also be chances to vote on the budget, suggest events, and to tell the ESS what you want changed.

So come by the SGM on Wednesday and have your say in the ESS! Did we mention free pizza?

Inside
Announcements 2
Welcome to Stream Awesome 3
Terrible Advice 4
Blank Page (really) 5
Why Biking Sucks 6
Advice Engineer 7
What Grinds My Gears 7
Fun! 8
Calculations A-1

Picture of the Week
The engineer’s guide to mixed drinks, in all its blueprint-sized glory in the ESS office.

Heard a prof or fellow student say something embarrassing or incriminating? Send it to fishwrap@engr.uvic.ca

“If anyone tells you 3A is easier then 2B, punch them in the face for me.” -4B Elec student to 3A Elec student

“I start playing with chalk and the whole concept of heat transfer goes down the tube.” -R. Bhiladvala, Mech 295

“When I hypnotized you, I looked at my key chain and I forgot.” -F. Gebali, CEng 241
Events & Announcements

Engineering Ladies’ Night

To kick off the new semester with a super epic event, Leadership Through Diversity (LTD) is presenting Ladies’ Night this Friday, Jan 13!

The theme is cocktail style, so wear fancy dresses, heels, hair, and makeup. It will start off at a private destination (close to UVic) at 6 PM, where refreshments will be served; private transportation (we are not bussing) will be picking us up at 7:45 to bring us to destination B downtown at 8:45. We will end up at the Keg for half-price appies.

This is an all-ages event! Tickets are $15 and include food. For details, please contact Tiffany Yu at tyu@uvic.ca or add her on Facebook for the invite.

Disorientation

3A students (including all bridge students), get ready for disorientation! Details will be in the next Fishwrap.

Locker Registration

To register a locker in the ELW, use the online form at ess6.engr.uvic.ca/lockers (or scan the QR code with your webcam/phone/tablet).

Note that this only applies to ELW lockers. Locker registration in the ECS is handled by the Computer Science Course Union; for details, check their office on the 3rd floor of the ECS.

Why engineers shouldn't be doctors...

Doctor! Thank godness. How is my husband?
Well Mrs. Johnson, I'm afraid that when the bear attacked him, his legs were immediately severed from his body.

Yes, initially I wasn't sure whether his limbs had failed due to shear or bending, but after analyzing these stress/strain curves, I was able to determine that his deformation is well into the plastic region.

My god!

What? Oh, no, no - ha. He's totes dead.

Will he ever be able to walk again?!
Fishwrap? What happened to Tubes?
or, welcome to Stream A (the A is for awesome)

Every January, first years (and students who transferred to UVic in September) get a strange sense that something isn’t right. They’re in the same buildings, yet something’s different. Everybody seems to know everyone, yet somehow you don’t recognize anyone. And Tubes and Wires is suddenly replaced with a stupid newsletter about fish. No, there wasn’t a change in the Matrix; you’ve just entered a different stream.

As many of you have probably figured out, students following the standard schedule will alternate between school and co-op every semester after the first year. This effectively leaves two groups of students, known as Stream A and Stream B.

This semester, Stream A is in school while most of Stream B is on co-op. If you are currently in first year and end up following the standard schedule, you will be in Stream A for the rest of your time at UVic. This applies to most bridge students as well. In other words, this is a great time to get to know people, because you will probably be stuck with them for the rest of your time at UVic (even if they’re in a different year than you). Speaking of years, currently there are students in semesters 1B, 3A, and 4B on campus (as well as various students from Stream B taking an extra semester, plus other students not following the standard schedule at all).

As for the newsletters, Tubes and Wires is for Stream B; it will be back in summer. Until then, you’re stuck with the significantly-more-awesome Fishwrap.

Figure 1: oscilloscope analysis of co-op streams.

\[ f = 4.756 \times 10^{-8} \text{ Hz}, \quad \phi_A = 0^\circ, \quad \phi_B = 180^\circ \]

See Appendix A for Fourier Transform calculations.
Your advice sucks!
Tale of an angry dude trying to find love in rough waters

Note to the chick who offered love advice last summer in the Fishwrap:

I don’t know who you are or what you’re trying to achieve, but your advice ruined me. You caused me to burn my flame pants after that fashion article. When everyone read that article in class they looked at me funny. Thanks to you I have 1 less pair of pants to wear because my mother forgot to buy me a new pair for Christmas. I just want to let you know that ever since I ditched your advice, I have had deep conversations with 3 females. Maybe my undergraduate advisor doesn’t count, so that’s 2, but still. I am doing perfectly fine without you. So please, do everyone a favour and stop writing in the fishwrap. I AM REALLY DOING FINE!!!!! Thanks.

-- Popular & Single Good-Looking Guy in Engineering

XKCD: Ballmer Peak

by Randall Munroe, xkcd.com. Creative Commons-licensed.
This page intentionally left blank
Might as well use it to draw a comic for the next Fishwrap!

Wow, that was a great comic you drew! You submit it to the Fishwrap! Either email it to fishwrap@engr.uvic.ca, or drop it off at the ESS office (ELW 2nd floor)
The Many Horrors of Biking

I am a very terrible biker. I’m not saying biking is a talent, but if you saw me on a bike I think you would know what I mean. Before new years eve, I stupidly lost my drivers license and my student card up at Mt. Washington, which caused 2 problems: at almost 21, when I embarrassingly needed a boot for NYE, I couldn’t drive because of lack of ID, and couldn’t bus.

The other day, I decided to go to my friend’s house in Oak Bay. I didn’t want to walk, and it was partially uphill so I didn’t want to longboard. I thought biking would be a good idea. Two minutes in, I swerved onto grass while attempting a shoulder check. I decided the safest way to get to destination B without killing myself was to act like a 10 year old and bike on the sidewalk (but this didn’t happen).

I was cutting through the UVic campus, and suddenly found myself on the wrong side of the road, unable to get to the other side because of some stupid grass divider in the middle (the campus entrance by Cedar Hill X Rd). I had two choices: walk my bike over the divider, look like an idiot and continue biking; or just fight traffic and merge into the correct lane of traffic. I decided to do the 2nd choice and ended up diagonally cutting across the intersection. My yoga pants then got stuck on the chain and I was flailing and looking like a frog in water. Thank God there were not too many cars around. I couldn’t even attempt any hand signals later on because I was too inept to ride without two hands; I had to make faces at the drivers. Good thing I didn’t see anybody I knew, otherwise I would’ve ruined my reputation. Maybe this is partially because the last time I biked on a road with cars was in Grade 2, but that is beside the point. I blame my mother for not allowing me to bike in my youth because she told me “biking is very dangerous”. However, she does allow me to longboard everywhere without a helmet; I really don’t understand where her logic is coming from.

-- Sincerely, an engineer who can’t bike.

by Randall Munroe, xkcd.com. Creative Commons-licensed.
Advice Engineer

Dear Advice Engineer:

Whenever I am at my parents’ house, I get annoyed by their VCR which constantly blinks 12:00. I would tell them to get a PVR, but then I would have to teach them how to use it (several times). How do I get their VCR to stop blinking 12:00?

-Frustrated

Dear Frustrated:

Piece of cake. First, open up the VCR. Look at the back of the display panel and find its part number. Now look up a datasheet for this panel to determine which pins are for data. Cut these solder traces. You will want to wire these data pins to the outputs of your favourite microcontroller. You can use an Arduino if you want, but a PIC or AVR will be cheaper (besides, real engineers program in Assembly). The datasheet for the VCR display panel should have information about the instruction format expected by the display panel.

Next, you need some way of getting the time. Thankfully, you can receive synchronization signals from the atomic clock in BCD time code on shortwave radio frequencies 2.5 MHz, 5 MHz, and 10 MHz (with a 100 Hz sub-carrier). It should be easy to get the radio input into the microcontroller; just find a radio schematic online and wire it to an input pin on the microcontroller. Or, if you’re more of a software person, you could take the software-defined radio approach.

So like I said, real easy.

-AE

p.s. if you’re in Mech and you didn’t understand any of this, don’t worry: as with everything, there is also a solution involving duct tape! Simply duct tape an alarm clock to the top of the VCR. Done!

What Grinds My Gears

Bark Mulch

Who thought it was a good idea to replace the gravel path next to the ECS with bark mulch, anyway? It used to be a great path for getting between classes. Sure, there might have been a couple puddles when it rained, but it worked. But now that it’s bark mulch, whenever it rains (i.e. the entirety of November to March), the entire path turns to mud, rendering the entire thing useless.

Supposedly, this bark mulch path is better for bikes, because gravel can get stuck in tires. But I’ve never seen anyone bike on that path, ever. And given that most people seem to park their bikes under shelter in the Petch breezeway, I don’t really see many circumstances where anyone would want to bike that path either. Meanwhile, I’ve seen many students use the path to try to get between classes.

Urban Dictionary

Word of the Week

Beard Goggles

When a beard-bearing individual is convinced that his facial hair looks great, regardless of how bad it may look to everyone else. Similar to beer goggles in that the more facial hair a person has, the better they think it looks.

“Wow, have you seen Dave’s beard? It looks terrible, I don’t know why he won’t shave that thing.”

“It’s because he has beard goggles right now; in his mind it looks great.”
The Fun Page!

Sudoku

<table>
<thead>
<tr>
<th>4</th>
<th>8</th>
<th>9</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>4</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>8</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>3</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>2</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>9</td>
<td>8</td>
<td>5</td>
<td>1</td>
</tr>
</tbody>
</table>

Editor’s Note

Well, it looks like this is my last Fishwrap ever, as this semester I will be stepping down from my position as ESS Director of Communications. And you know what this means: my position will be available at the SGM. It’s a great position if you don’t mind a bit of writing. It’s also a position that works well for first-years, so it’s a great chance to get involved in the ESS for the first time.

Due to problems with the FTP server, this issue is not available online yet. However, future issues will be available at ess.uvic.ca/publications/fishwrap/

I’m sure whoever replaces me would love your submissions! Email your interesting articles, funny stuff, and your nonsensical ramblings to:
fishwrap@engr.uvic.ca

Joel Geddert
ESS Director of Communications

Saturday Morning Breakfast Cereal

What keeps you up at night?

Doctor

Could I have saved his life if I were a better doctor? If someone else would’ve done better... does that make his death my fault?

Lawyer

Am I being ethical? Justice depends on a vigorous debate, but... what if my client is just guilty?

Engineer

High score!

by Zach Weiner, smbc-comics.com

This week’s list of people who are awesome (and submitted to this Fishwrap)

Tiffany Yu
Flash Gordon