

electrical
engineering

BUMPER
book of



Bob Smith

***FROM A MILK SHAKE
TO A BRANDY ALEXANDER***

***FROM A HAMBURGER
TO A FILET MIGNON***

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Roundhouse Cafeteria
Science Cafeteria.

**THE UNIVERSITY OF N.S.W. UNION
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1984 YEARBOOK

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EDITORIAL

Well here I sit at my typewriter putting the finishing touches (smudges?) to the Inaugural (well — almost) ELSOC Yearbook. Over the short space of two months the editorial team, with the assistance of those noted below, have slaved and sweated to produce this gem of engineering literature. As this was our first experience in year book editing, the ELSOC's first yearbook in quite a while, we needed to learn a lot about the publishing business.

We had in mind, primarily, the graduates, when we were preparing the book. If anyone feels uncatered for, or objects to the lack of any material, then it is merely their own fault for not contributing. So there!

For the editors next year, we can encourage you by saying that much of the groundwork has been laid, and the task will hopefully be easier. It's been great fun for all of us, and definitely an experience that is well worthwhile.

In the next few weeks, the ELSOC AGM will be held, and all Electrical Engineering students (who are automatically members of ELSOC), should attend. We should, at this meeting, vote in next year's editor, so that the work can get started early, avoiding the last minute rush experienced this year.

The rise of the ELSOC yearbook is indicative of ELSOC's increasing activities over the past few years. With the active support of its members, ELSOC will become the best of student societies on campus.

As a final word, being the only non-graduating member of this year's editorial team, I would like to extend my warmest thanks to Darren, Gunilla, Bob, Ly and Anne, who gave up much precious time in the preparation of the book. Good luck and have fun in your future lives. Good luck also to the rest of the fourth-years.

HUGH CLAPIN
EDITOR

Acknowledgements:

Heather — for typesetting and much patience

Alastair W. and Wendy C. for layout and production help.

The Students' Union — for facilities

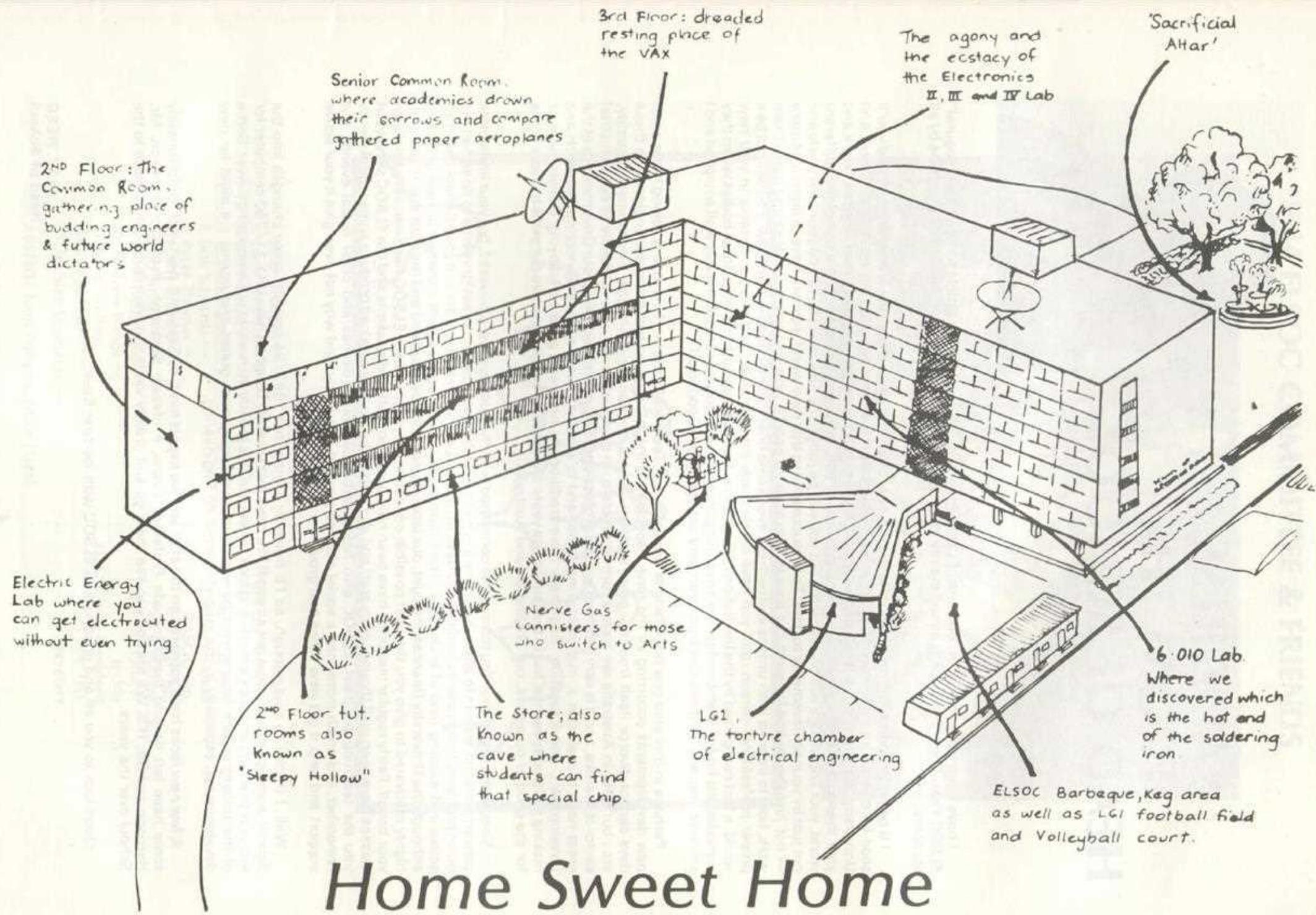
Texas Instruments, Institution of Engineers, University Union — for the advertising

Tim Menzies and John Olip — for layout expertise and help.

Neville Rees, Anne Johnson, E.E. Office staff — for the extensive use of school facilities.

The E.E. School photographer — for developing and prints.

The many machines and dead trees that worked and died (respectively) for this yearbook.



ADDRESS FROM THE HEAD OF SCHOOL



I have been asked by Mr. R. Edwards, ELSOC President, to write a short article for the "Re-Inaugural" ELSOC Year-Book. This book is aimed mainly at 4th Year students but will be available for purchase by all students.

I'll begin by addressing my remarks to the 4th Year class. Your years of study are nearly over and you'll soon be moving into the work force as young potential professional people. Your training in School and University has given you a lot of knowledge. Much of this knowledge, especially your 4th Year work and your thesis, is at the forefront of technology. Most of you, however, will move into a completely different world, your knowledge will be respected but you will be judged by how well you fit into your new world and not just by your achievements to date. To be successful in this new world, you will have to learn a lot more — not just theory and lab work but how to interact with people, how to apply your ideas and make them work, how to interact with unions and perhaps even some financial management and law. You will not be a proper professional person until you have safely made this transition and are comfortable in your new world, a fact recognized by the Institution of Engineers, Australia, and other Professional bodies when they consider you for full Membership. It is an exciting time that you face, you are technically well equipped and I am sure you will all make the transition very satisfactorily. Good luck!

Perhaps in this area one final thing is worth saying. Technically the world is at an exciting stage, with new developments occurring all the time, especially in the information technologies. Engineering these days cannot divorce itself from the great social questions of unemployment, the environment, equality, etc., but here in Australia we have a further problem. In many areas the very existence of our industrial sector is at stake, and it is very much up to us as professional Engineers to convince our Governments of the great need to maintain a manufacturing sector and to support Science and Engineering Research and Development, and Education. Engineers have traditionally not been good at lobbying Government or making political speeches, but in the immediate years ahead we all need to improve our skills in these areas for the good of ourselves, our profession and Australia.

Now, to the rest of you! You too must be concerned with the question just discussed, but your immediate concerns are more close to home. You have exams to pass, labs and computer assignments to do and all the other problems that students traditionally have to handle. Let me say that you are in a good School and in an active and exciting field of endeavour. The future prospects for employment continue to look good and although the University finances are tight, our laboratories are well equipped and the staff are, in general, highly motivated to give you the best possible education. In recent years, ELSOC has been very active on your behalf. Fairly regular meetings have been held between staff and students and the ELSOC surveys of classes have been well thought of by staff and students alike, and have helped produce some useful inputs into the teaching program. ELSOC also holds barbeques, bush dances and other social events, but remember, it is much more than a social club, so support it strongly, and why not even give it your active support and help it get new ideas and grow.

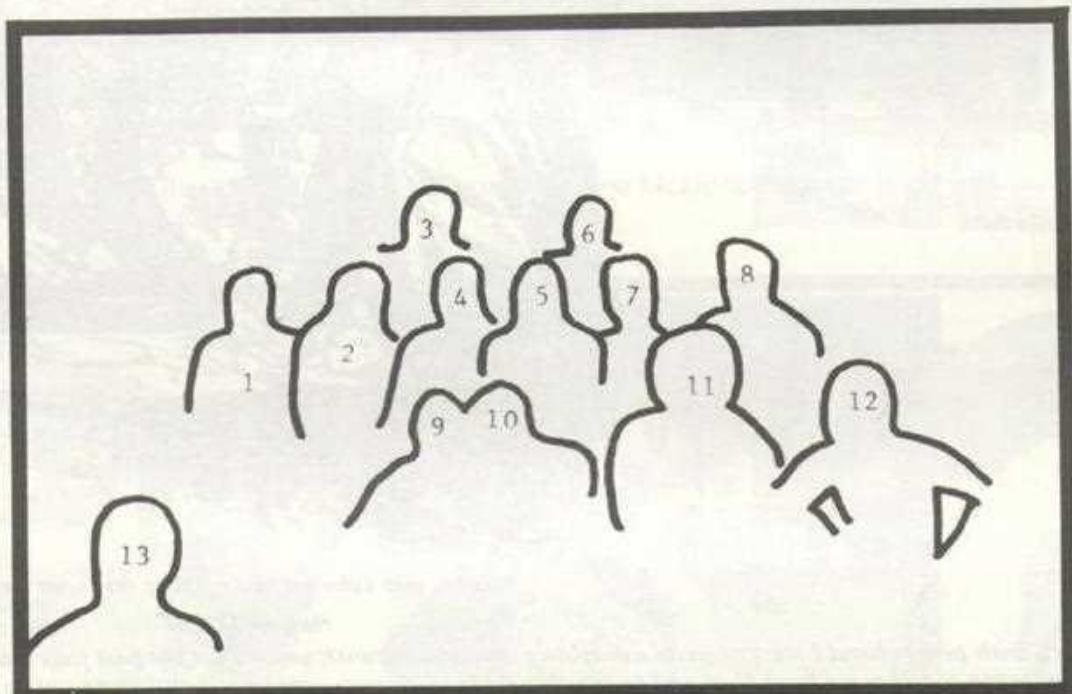
Well, I think I've said enough, so I'll finish by saying that 1983/84 brought some changes into the School, some good and some not so good! We have just recently bought a new VAX 11/750 computer for 4th year teaching and thesis work, and look forward to this greatly increasing our computing power. Some of the undergraduate laboratories have also received equipment grants and moves are afoot for new developments, especially in the area of Computing Engineering.

A few new faces have appeared on the staff and we expect more by Session 1 next year. Unfortunately some have left us and these include Professor Evans, Professor Stapleton, Professor Johnson, Mr. Harrison and Mr. Hill. We are sorry to see them go and greatly value the contribution they made to the School over the years.

Good luck to you all and good luck to ELSOC with its Year Book.

N.W. REES
Head of School

1984 ELSOC COMMITTEE & FRIENDS



1. Brian Murphy —
2. Liane Unewisse —
3. Tim Menzies —
4. Gunilla Ranson —
5. Bob Edwards —
6. Peter Thomas —
7. Kathy Blamey —
8. Bob Smith —
9. Anne McDonald —
10. Andrew Bartos —
11. Luke Welfare —
12. Craig Pepper —
13. Lachlan Wetherall —

Heckle
Publicity Assistant
Education Officer
4th Year Rep.
ELSOC President
CASOC rep.
2nd year rep.
Past President (1982)
Publicity Officer
Jeckle
ELSOC Vice President
1st year rep.
Secretary

ABSENT: John Pollaers, Mike Uzzel.

ADDRESS FROM THE RIGHT HONOURABLE LUKE WELFARE esq.



"Gosh", said Luke excitedly, "Why don't we have a Harbour Cruise!"

Well with pen in hand I start to write something about being with you lot for the past four years. In four years of being together we have done and seen many different things, some good and some not so good. But briefly for 200 people we have survived the ups and downs of University life, well almost. From the very first lecture with Dr Russell until our final exam in November.

When those who get through in four years will be looking for that well payed job and will finally be able to buy and do all those things which we didn't have the time or money to do.

Although at Uni it wasn't all work; the BBQ, Harbour Cruise, Bush Dance and the many parties at each others homes. Not to mention the pondings, the hiding of my bag and trying to improve my social habit weren't fun.

But basically in the long run, when all the maths, physics and all we were taught in Electrical Engineering is forgotten, we'll probably remember those times when we really excelled ourselves at Uni, right..... (fill in your own name as there has to be something that someone has got on you).

Finally, when you leave, I hope that you don't throw away the friendship and bondages made at Uni, and in the long run remember University and me fondly.

LUKE WELFARE

1984 YEARBOOK EDITORS



*Hugh Clapin, Bob Smith, Ly Unewisse, Anne McDonald, Daren Burrowes,
Gunilla Ranson.*



LETTERS TO THE EDITOR

First of all let, me tell you that I am an overseas student from Asia. You might be surprised that I am one of the few Asians to submit an article to be published (at least I hope it will be published).

I have in fact been studying in Australia close to five years now, and I have enjoyed my temporary visit to the Land Down Under. However, recently I have been utterly disgusted with a group of Australians who have strong sentiments against Asians. Only now do I realise that a part of Australia can still be so narrow-minded and could still steadfastly adhere to the ideologies of the White Australia Policy, even in this day and age of fried rice and sweet and sour pork.

I may not be an expert in Australian history, but this much I know — the strong tradition of racism present since the 1800's still lives. To those of you who are advocates of such ideologies, you can get f---ed (my apologies for using such profanities but you must understand that my feelings towards racists is not one of love, but of passionate hate). This has been brought about by close encounters of every kind, to racism during my stay in Australia e.g. through rumours I have heard, reading about, and watching racist acts, as well as being abused and discriminated against several times.

Encounters similar to those I have had in Australia would, if experienced by an Aussie in, say Bali, leave them absolutely flabbergasted. But many a time, Aussies do not put themselves in the shoes of the Asians (or migrants from anywhere else for that matter). Therefore, Aussies do not get a taste of the lethal dose of racism. On the contrary, I have put myself in your (Aussie) shoes and have learnt that some of the things that migrants do are quite irritating.

I am sure that some of you Aussies think that most (if not all) Asians are very arrogant in that we do not socialize very much, nor do we ever attend any of the ELSOC BBQ's or Harbour Cruises. Regretfully, I agree that some Asians are actually quite arrogant, but for the rest, there are numerous reasons for their not being active in social activities with Aussies.

Though it may be difficult to comprehend or believe, there seems to be a lack of understanding on the Aussies part regarding the behaviour of Asians. Lets look at a few examples. Firstly, there is the Asian's attitude towards education. Most Asians put a lot of emphasis on education, especially in a developing country where competition is very great and many are workaholics. However, do not be mistaken into thinking that I'm saying that Aussies do not give a damn about education. On the contrary, I'm referring to the degree of importance that is being placed on education in relative terms. Hence you find that most Asians work a lot harder and spend longer hours studying which in the past (and still now) irritated some Aussies, who complained that Asians get good grades all the time. Let me put it to you this way — the grades are there to be grabbed. So whoever works hard (be s/he an Asian or Aussie) deserves good grades. Just as an aside, I notice that many Asians are not as good as Aussies when it comes to lab work or computing, and this includes yours truly. However, I do not condemn or be jealous of Aussies because of this, instead I admire your capabilities.

Another aspect to the problem is that most Asian students pay their way to come to Australia. Let us now consider some simple mathematics. A middle class family in Asia depends on the father who, as an engineer of some twenty years, would earn about \$A 10,000 p.a. Of this amount, about \$A 4,000 p.a. is spent on educating a child in Australia. This is almost 50% of the father's annual income, which is rather low because labour is cheap in Asia (as if we didn't know!). But bear in mind that this example concerns a middle class family. What about those who are less fortunate, being in the lower echelon? These people have to save up enough in order to send their children here for a proper education. Again it is hard for Aussies to conceive of the amount of pressure that is faced by many Asians who have families that have very high hopes and expectations. Asians, unlike Aussies, cannot afford to defer for a year and become a pro-surfer, or go hitch-hiking around the world. Many Asians have too much pride, as it would be very shameful for one to waste a tremendous amount of money and effort (on the parents' part) without graduating. Besides, there is no such thing as Social Security, or the Dole for Asians to fall back to.

I can only remind you Aussies to put yourselves in our shoes, as I read 'Asian Filth Out' on the walls of campus, I hear mocking laughter in lectures whenever the lecturer uses the term 'slope', I see an Aussie abusing an Asian colleague for occupying his bench at the lab — need I tell you more?!

Trivial though these things may be, but when it all adds up, it really hurts, and one doesn't easily forget such things when one experiences it.

Perhaps I am just wasting my time and yours writing all this down. I have the slight hope of presenting the type of problems that exist between Asians and Aussies. I do not claim to be an expert in the area, nor do I have any definite solutions to this serious problem, but at least I have presented my thoughts to you, thoughts which have been bottled up for too long, infected with much disgust and disappointment at the way some Aussies have behaved towards Asians through the years.

S.K. 'Gandhi'

Editor's Note: This article appears here in a somewhat edited form, due to space considerations. Apologies to the author, who we could not contact before publication.



TEXAS INSTRUMENTS

Professional calculators

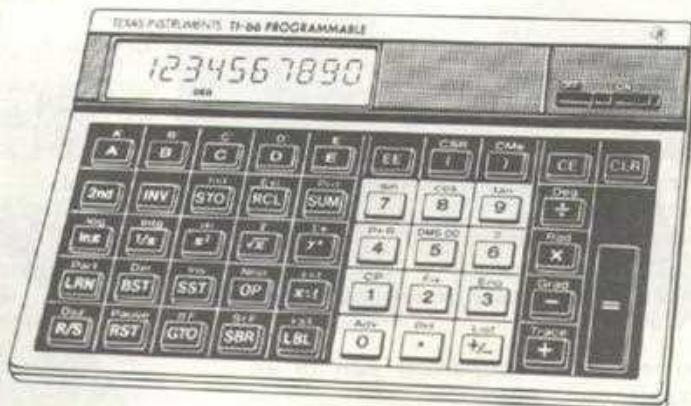
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SO YOU WANT TO BE AN ENGINEER?

So you believe that Engineers are born, and not made? And that you are one of the chosen few? Do this quiz and discover how much you really want to be an Engineer.

(1) Do you have a desire to be understood by other people:

- (a) Yes
- (b) No
- (c) I relate better to microprocessors.

(2) Do you:

- (a) Enjoy meeting and observing people.
- (b) Prefer a solitary existence
- (c) Just like to get pissed — it doesn't matter how big or small the party is.

(3) If you had a sudden windfall of \$200, would you:

- (a) Buy yourself a new HPI5c
- (b) Spend it on floppydisks computer games and new software
- (c) Buy a keg

(4) To which of the following are you most likely to subscribe:

- (a) Electronics Australia
- (b) Byte
- (c) Phantom

(5) Do you feel that your life is unfulfilled and that you want to do something useful and meaningful:

- (a) Yes
- (b) No
- (c) What a bullshit arts-faggot type of question.

(6) When you are at a party do you feel that you are on the outside observing all the others:

- (a) Yes
- (b) No
- (c) I don't feel anything at parties.

(7) When you buy a new electrical appliance do you:

- (a) Carefully read the instructions before using.
- (b) Read the instructions and study the circuit diagrams for interest.
- (c) Go ahead and try to use it.

(8) Which of the following best describes your views on news and current affairs:

- (a) Very interesting, an important part of an engineer's all-round education
- (b) Only read news available on the VAX
- (c) Find out all I need to know at the pub.

(9) A VDU is related to:

- (a) Contraception
- (b) Computing
- (c) Athletic supports.

(10) When you graduate, do you intend to join:

- (a) IEEE
- (b) APEA
- (c) Bandidos

HOW YOU SCORE:

- | | | | |
|------|-----|-----|-----|
| (1) | a-2 | b-3 | c-5 |
| (2) | a-5 | b-3 | c-0 |
| (3) | a-2 | b-2 | c-0 |
| (4) | a-5 | b-3 | c-2 |
| (5) | a-5 | b-3 | c-0 |
| (6) | a-3 | b-5 | c-0 |
| (7) | a-5 | b-3 | c-1 |
| (8) | a-3 | b-5 | c-1 |
| (9) | a-3 | b-5 | c-1 |
| (10) | a-3 | b-3 | c-1 |

30-40: You are very good at doing simple-minded quizzes from empty-headed women's magazines. Unfortunately you are likely to be able to make a professional career at this — a good alternative would be to consider Medicine or Law.

20-30: You are the kind of lonesome, gibbering, unwashed social-misfit that is commonly found hunched in front of a terminal in the VAX lab. You are imminently suited to the field of Computing Science.

10-20: Congratulations — you have demonstrated the outstanding ability and intellectual brilliance normally associated with an Electrical Engineer. You should go on to a rewarding and successful career.

0-10: A person with a score in this category is representative of a special and select breed — the true Yobbus Repulsivus. You have the capacity and ability to be a reasonable toilet attendant, however even this may be beyond you due to your drinking problem.



"Show Cause NOW!", said
Dr Blanks to the unlucky
student.

HOLY THURSDAY KEG

The first keg of the year was tapped on the Thursday before Easter, "Holy Thursday". As per usual, the ELSOC Vice President and head of the Social Committee, Luke Welfare, managed to organise a suitable grey, cold and windy day. How many times in a row have you organised an event on a rainy day Luke?!

The inclement weather did little to dampen everyone's spirits and general drinking ability. Despite some minor technical hitches with the tapping, all those who wanted beer, wine or orange juice (from the usual extensive ELSOC range), were soon satisfied. Tasty gourmet appetisers such as "Fabulous" cheese and potato chips were also provided.



A large assortment of containers were pressed into service when people realised at the last minute that this was a "BYO Glass" event. There was a 200ml beaker, several coffee mugs and the favourite from the Harbour Cruise, a milkshake container.

Peter 'Vege' Breide was not to be outdone. What was that black rubber swizzle stick you were using Pete?

Following the keg some people drifted off the tutes, (try going to a tute after you get your money's worth from a keg — or ask David 'DJ' James about it!), while the rest of us cleared out for our Easter holidays.

If you missed this keg, be at the next one — the odds of Luke organising more bad weather must be decreasing! (or have I learn't nothing in Stats?).



ELECTRICAL ENGINEERING — A PERSONAL REVIEW

I started in 1980. Fresh out of High School I took up push bike riding as a means of transport. 99% of all the accidents that I have had have been while riding between home and Uni., some sort of subconscious death wish I suppose.

First year was mainly spent between Uni, Bronte and the Pub. TEAS bought me quite a few records and also financed those Friday-Saturday-Sunday-Monday-Tuesday-Wednesday-Thursday nights at the Pub. I remember taking part in quite a few bong sessions with non-Uni. friends. Having quite long hair, I remember always burning my fringe when trying to light-up.

First year, among other things, was my introduction to Lectures, Tutorials and General Studies. I was in G.S. where I learnt the art of sleeping through an education. The first subject I failed, funnily enough, was "Man and Landscape in Australia". In tutorials there seemed to have been shown quite a lot of slides and stuff, this allowed me to prop my chair up against the back window, catch the Summer afternoon breeze and fall asleep for half an hour or so. In retrospect, G.S. was not all that bad or a waste of time, it gives us Engineers something to talk about to the Technologically illiterate at parties.

Second year was when Elec. Eng. really started. Unfortunately no one had yet perfected the art of paper plane manufacturing. They were all the same old boring design using A4, foolscap or computer paper. Hardly a lecture would go by where one would not be thrown. Nearly all of them would fall short and hit the heads sitting at the front. Some would reach the lecturer or the blackboard. Some lecturers would play stupid. Some would complain, others wanted the student responsible to leave. Some gained extra respect that way, others would have to leave, leaving the students rejoicing in some sort of victory.

As far as Academia goes, who can forget paying \$20-30 for a text the size of a paper back? Fudging of Physics or Elec. Eng. Labs results were no longer a pastime but an Art. Getting a more thorough introduction to computing with the aid of the hypnotic power of the VDU in the early hours of the morning. It was the time when I found a greater need to get into the surf. Pressure? Boredom? Frustration? Perhaps all three, but it was a great way to release a lot of aggression.

Third Year, most of us thought, was more than half way through the course, well, the best made plans of mice and persons . . . This year I consolidated my place in the back row of LG1. It was a good year. I got thrown out of a lecture for talking too conspicuously, the subject which I later failed (my second). The number of hours spent computing increased a great deal, similarly my patience with the "Elecvac" decreased more than exponentially. This was one of the reasons why I bought a wetsuit so I could go body-surfing in winter, a real God-send. Strangely enough I had almost totally given up smoking dope and my consumption of alcohol was such that I would only get "blind-chucking-up" drunk once a session.

Third Year was also the year in which ELSOC reformed (yet again). I remember an older student (6th or 7th year), looking like a Beer Barrel, come around to a lecture and ask permission to speak. The lecturer seemed to know him quite well and in a controlled yobbo style of voice urged us all to attend another AGM. Since then ELSOC has really gone over the top.

Last but not least was 4th year. It can be debated whether or not three sessions constitute a year, but I had no trouble living with this minor anomaly. To a certain degree the subjects that I did were interesting. The best way to sum up 4th year was that I started with no grey hairs, for three sessions I lived like a monk and finished with a number of grey hairs and being sent for a Barium meal X-ray by my G.P. If you can possibly avoid a Barium meal do so at all cost.

JOHN OLIP



Belayed to a spike of rock, Guy wished he was anywhere else, even sitting in a Solid State exam.

6.010 LABORATORY NOTES

Laboratory 1

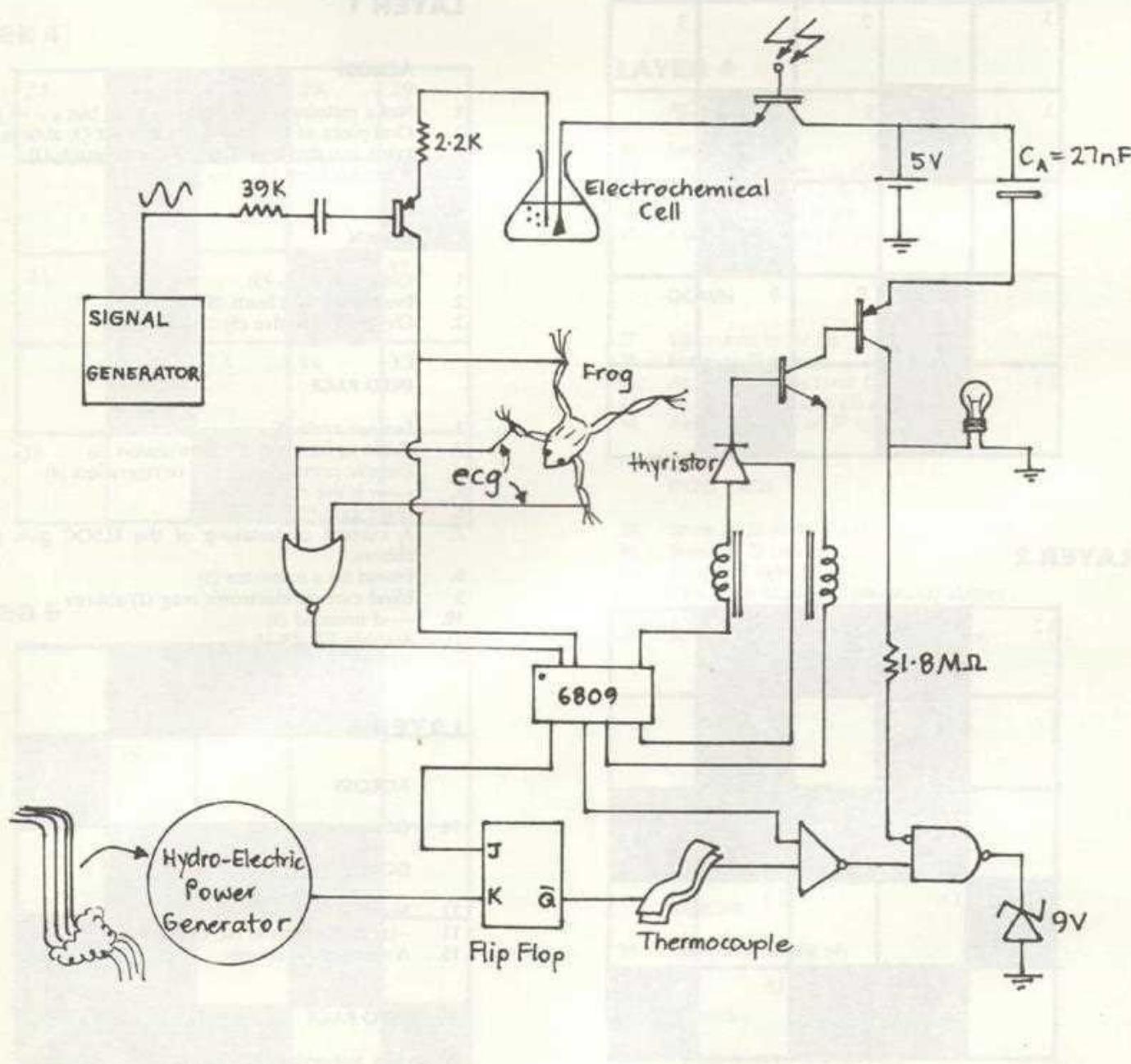
Preparation — Have night off

Experiment — Measure the voltage across a 12 volt battery

Laboratory 2

Preparation — Using what you learnt from laboratory 1:

- (1) design and build a two-channel CRO with external trigger and X-Y plot capabilities.
- (2) correct the value of C_A in the circuit below.
- (3) calculate the frequency required to kill, and then revive the frog.
- (4) show, to 8 decimal places, how UNIX is based on this circuit.



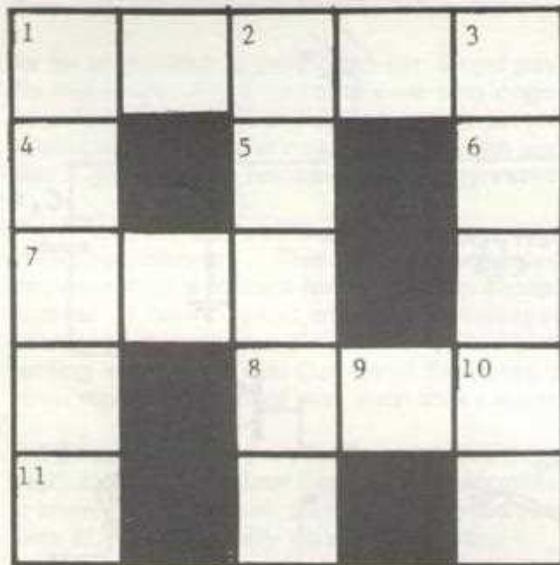
Experiment: Find a sympathetic lab demonstrator and get your prep marked.

BOB'S SHORT & SIMPLE

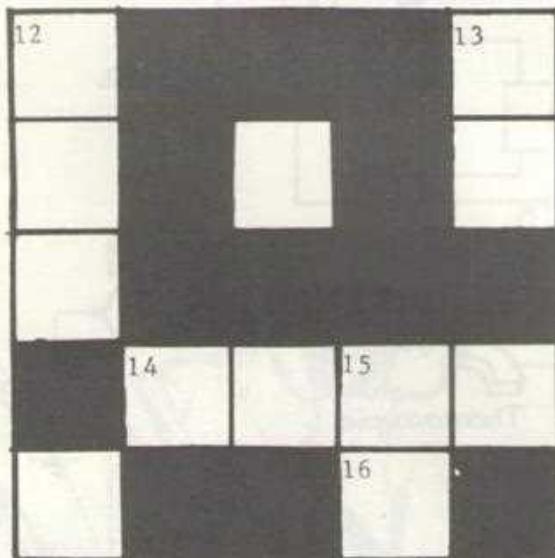
No I'm not!

3-D CROSSWORD

LAYER 1



LAYER 2



CLUES

LAYER 1

ACROSS

1. Not a mainframe (VAX), not a mini but a ----- (5)
2. One piece of laboratory equipment (3) abbrev.
7. What you don't get from a digital watch (3)
8. A display form (3)

DOWN

1. Copper is a ----- (5)
2. Every second it hurts (5)
3. Oxygen derivative (5)

INTO PAGE

1. Famous code (5)
3. Cable to be used for transmission (5)
4. thermic principle used in refrigeration (4)
5. -----w is the code for 4 (5)
6. Logic gate (3)
7. A current undertaking of the ELSOC girls (2) abbrev.
8. Found on a transistor (5)
9. Blind current electronic mag (2) abbrev
10. -----d sinusoid (5)
11. Audible 120 dB (4)

LAYER 2

ACROSS

14. Of a transistor (4)

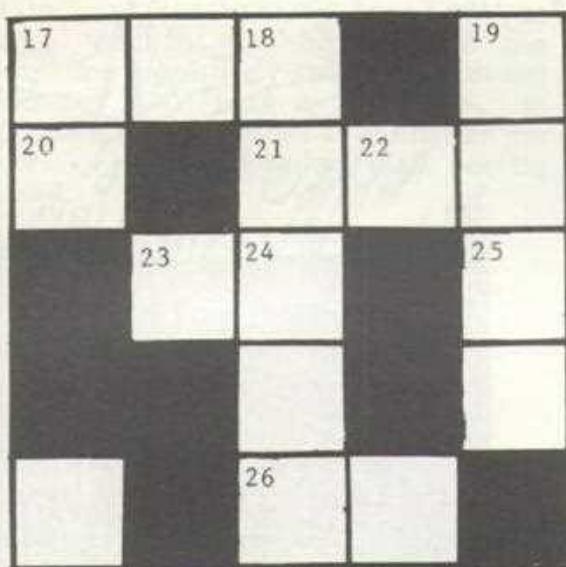
DOWN

12. Number for black (3)
13. --lar conversion in AC circuit theory (2)
15. A receiver (2) abbrev.

INTO PAGE

16. New technology for IC's (4)

LAYER 3



LAYER 3

ACROSS

17. Plug/socket type (3)
 21. Type of resistor (3) abbrev.
 23. Logic state (2)
 26. 6.021E taught this (2) abbrev.

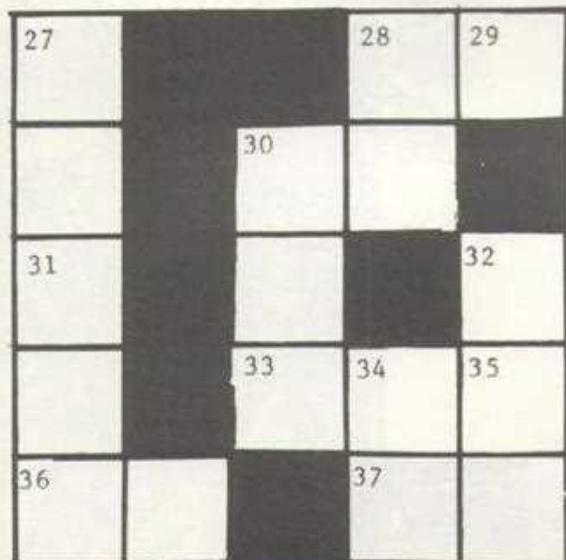
DOWN

17. -a-io, Marconi's speciality (2)
 18. Every circuit needs one (1,3)
 19. Fine adjustment (4)

INTO PAGE

20. Keyword in PASCAL (2)
 22. Another plug/socket pair (3)
 24. Description of "blown" component (2) abbrev.
 25. Calculus of loops (2) abbrev.

LAYER 4



LAYER 4

ACROSS

28. Logic state (2)
 30. --oxide batteries (2) abbrev.
 33. IC packaging (3) abbrev.
 36. Same as 20 into page.
 37. Major group on campus (2)

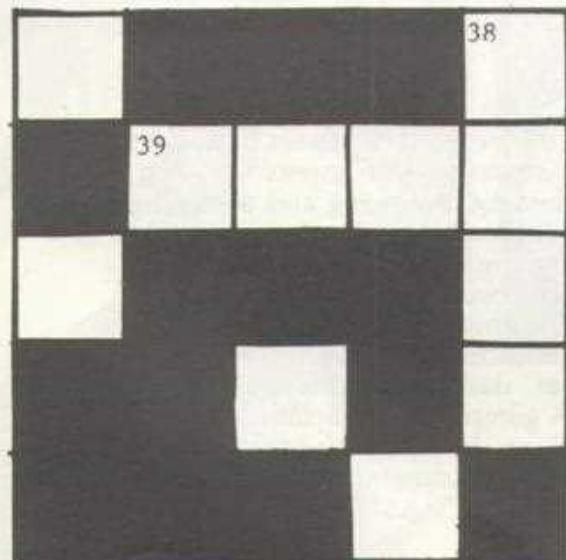
DOWN

27. Vibrations in air (5)
 28. Same as 28 across
 30. Another display form (3)
 32. 68 000 used as one (3) abbrev.
 34. Reverse letters of 37 into page

INTO PAGE

29. Same as 25 (into page)
 30. Same as 23 (across)
 31. Range of light (2)
 32. New style of record players (2) abbrev.
 35. Complement of Kinetic Energy (2)
 37. IC wafers are made from (2) abbrev.

LAYER 5



LAYER 5

ACROSS

39. Recording Mode (4)

DOWN

38. Hex is one, so is binary (4)

HARBOUR CRUISE REPORT

SYDNEY: On the evening of the 5th of May, Pier 2 at Circular Quay was loaded down with 300 feet, an abundance of eskies, bottles and a 90 litre keg. Once again engineers had congregated for the annual ELSOC harbour cruise.

The cruise began with a general atmosphere of exciting expectation; possibly because rumour had it that Kathy Blamey, (the second year rep.) was to be the door prize. The door prize, honestly won by Rob Downing, skillfully procured by himself early on this gala day, was only a bottle of plonk — too bad Rob. But his consolation prize, a kiss, was stoically awarded by the ticket drawer, Kerry Lunney. Ha ha Kerry



The Harbour Cruise

All these events and more were captured for posterity on celluloid courtesy of Darren Burrowes and Gunilla Ranson (and their cameras).



Much of the evening was spent by a select number of students and guests jumping, bopping, bumping, bouncing and thumping on the lower deck; i.e. dancing. Principle soloist at bumping were Nimi Fonseka, David Hayward and Fiona Morrisey. Indeed David would hurl his entire frame across the dance floor. This projectile incurred many injuries among other dancers and unsuspecting spectators. A glimpse of multiculturalism was awarded to us by the talents of Anne McDonald Kossak dancing. Later she was overheard to say, "I just couldn't get low enough".

Later in a lull of the music, Anne again was in the spotlight as she grabbed the microphone suggestively with both hands and announced that, "Luke is a wanker". In accordance with the ethics of journalism the sources of her information shall not be released.



A solemn moment.



Left to Right: Kerry, Cheese & Biscuit, and FITH

One of the more solemn moments of the evening was the tapping of the keg, even more melancholy was the draining of the above keg less than half an hour later. Only the presence of an abundant private stock (much of which was spilt on female passengers), saved the evening. Speaking of inebriation, many engineers exhibited a marked change in personality. Lee Pippard was very affectionate until he fell asleep and virtually had to be carried off. (The original drunken sailor?). Our illustrious ELSOC Vice President also showed his gentler side. Yes, Luke Welfare kissed and/or groped any female and/or male he stumbled upon — we love you too Luke!





The Boys Light Up



I feel like a Pepsi or two

Alcohol produced a different effect upon the lower years. Second year spent much of the evening on the top open deck injuring each other and innocent (and not so innocent) bystanders by scrumming and other random football tactics — Kerry was limping for a week. Third year was also prompted to violence and many (noticably those in the Navy) spent a happy evening head-butting. Paul Peters had a lump the size of an egg on his forehead and Brian Murphy incurred a bloody nose.

Another noteworthy event was the climbing of the roof of the ferry and hurling empty bottles at the passing John Cadman Cruise.

Yes, this cruise had it all — sex, drugs and violence —what more could you want.

A good evening was had by all (almost all).



What did they see?



That's all folks

Being a sensitive Engineer and trying to keep up with Women's issues, I came across an advertisement in "Dolly" magazine telling the reader:

WHAT AN INTELLIGENT GIRL NEEDS IS AN INTELLIGENT TAMPON.

This, you might think, sparked my imagination. Knowing all about microprocessor technology and how the word "intelligent", "smart", "upward compatible" etc creep into other adverts I thought that this tampon must have something different to offer. Silicon chips are pretty small and with the right interfaces and programming, a tampon could, well replace a Prime Minister.

Whether or not it would have such a high popularity rating is another story. To date, there has not been any discussion on the effect of this new technology in replacing the unskilled and illiterate tampon. First of all what could an intelligent tampon do that a disadvantaged one could not. Well, it could:

- Bleep when it needs replacing
- Check for Cervical cancer and STD
- Give a sperm count
- Play happy tunes when you're bored
- Vibrate to the above happy tunes
- Interface to your Personal Computer
- Talk to the microwave
- Play with your cat
- Dial ISD
- etc

It could all become a bigger trend than using a "Walkman". Once demand became great enough male tampons would have to be developed. This could become a real boom industry for Australia. Moves are already afoot with the setting up of a VLSI Design company in Adelaide. The company is based on people who worked on VLSI when with the CSIRO. VLSI of course stands for Very Lovable Synthetic Inserts. What of all those other brands of tampons that will be made redundant? Will they be dumped on some Third World Nation? Who cares?



FOR MORE INFORMATION
PLEASE TICK YOUR REQUIREMENTS

FOR MORE INFORMATION

Please tick your requirements:

- Application Note 269, Free Loving Tampons
- Application Note 473, More Fun With Chips
- Pamphlet titled "How To Revive Your Cat"

Mail to: Caring People Department,
somewhere in the country.

Name:

Address:

Age: ..
(All mail sent in a hygienic plain wrapper, for your protection)

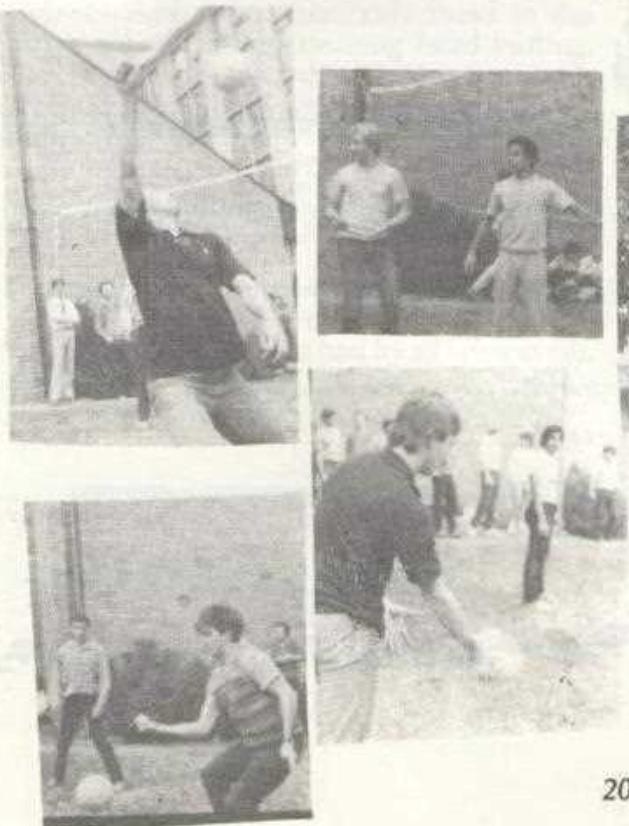
Tampon Application Notes
So Clean and Easy to Read

VOLLEYBALL REPORT

Inspired by the Los Angeles Olympics, the ELSOC Social Committee organised a very successful volleyball competition in session 2. Two teams from each year were entered in a round robin competition with the winning student team to play a select staff team.



The first round was held in week 4 on the lawn outside the building. A large crowd turned out to see 4th year defeat 2nd year. Shari Soulberg played well in front of the home crowd and was unlucky not to win Best On Ground. Unfortunately this excellent site had to be abandoned for competition in week 5 due to the mysterious appearance of 2 trees in the centre of the playing area. Phantom greymen/gardeners?



On Tuesday in week 5, 3rd year continued their unbeaten record, at the expense of second year. The Friday competition between year 4 and year 1 was combined with an Asian style barbecue, to make a change from Luke's usual gourmet steaks. This day was extremely well attended by all of ELSOC — the food was extremely popular and unfortunately ran out. Volleyball competition that day had the added excitement of seeing platefuls of satay land in people's lap when they were hit by a stray ball? 4th year won, although Shari was unfortunate not to win Best On Ground.

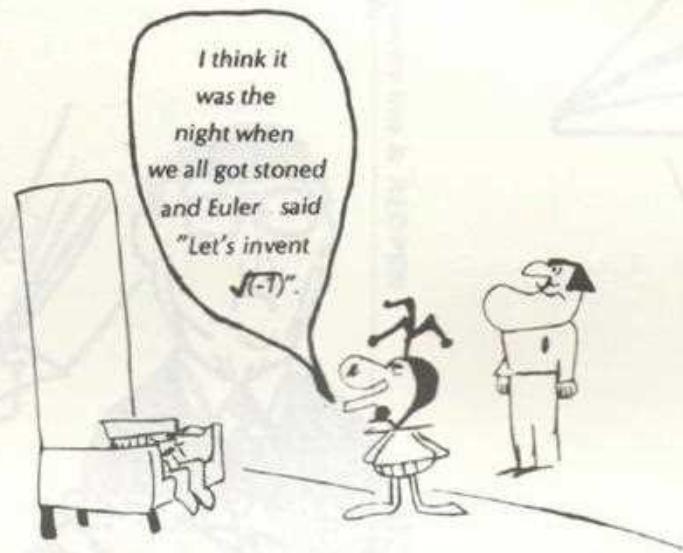
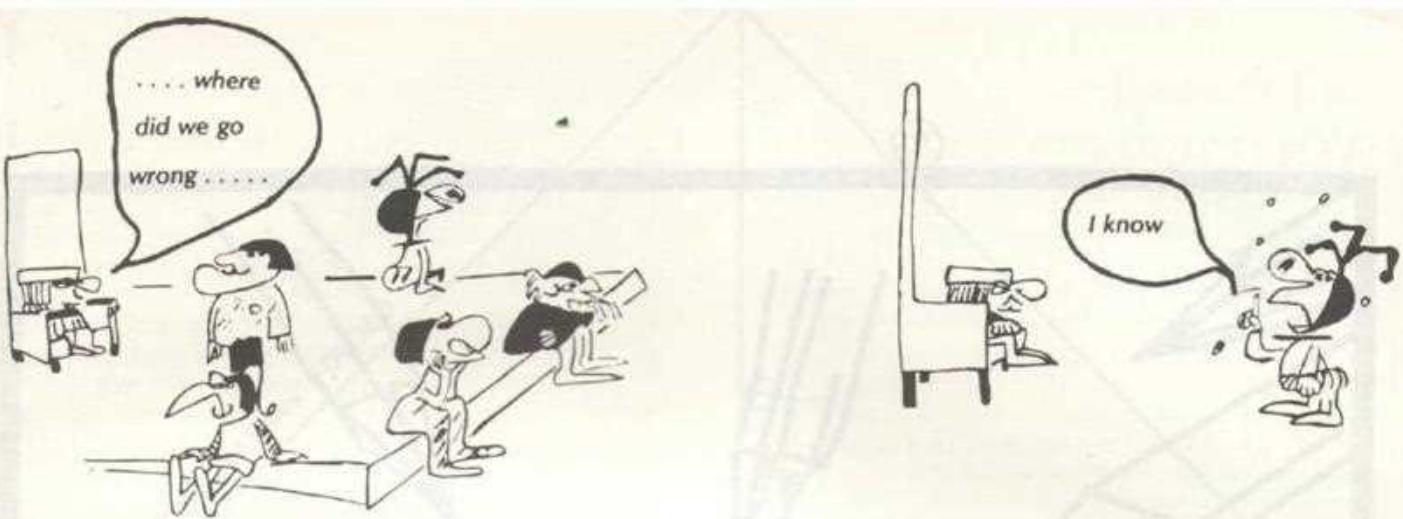


In week 6, the continuing saga of the playing area caused a confrontation between "the Greyman's friend" — Rob Downing and a stray Greyman. The situation was efficiently and expertly diffused by Luke Welfare, in his capacity as ELSOC Ambassador at Large. The same continued resulting in a surprise win for 3rd year. The final round in week 6 resulted in a win for 2nd year. Shari was again unlucky not to win Best On Ground in either match.

Friday week 7 was scheduled as the staff versus students match. Due to some unknown cause staff failed to provide a team and instead a grudge match was played between 4th year and 3rd year. This match was a crushing victory for 4th year who beat 3rd year's best team. Shari did not play.



Always run through the tape as if you had ten yards to go as Brian Shenton is doing here



John Pollaers spotted at ELSOC meeting.

Students emerge from LG1.



Mullet Shows Cause



Tear Out

⑥ Tear Out as desired for more or less lift



② FOLD and leave FOLDED

③

① FOLD as centre line & REOPEN

④ FOLD together

②

③

④ Once again FOLD and leave

⑤



③

③

ij

l

⑤

⑤

FOLD and Stretch OUT perpendicular to this sheet

THE TREVISAN VIEW

Hi dere svingers,
So you think your a good enjunear. Try this quick quiz:

Your being interviewed, and its between you and one other. Both of you are suited to the job. How do you WIN! without using any dirty underhanded tactics?

Give up? Read the solution below. Out of interest this did not happen to me. B.B. asked me, "do you want a job", I said "of course". And now, 25 years later — retrenched. Well, I may be looking for a job as a cleaner after all — "smear my ears with jam and tie me down to a bullant's nest".

Back in the early days of Uni I recall some CLOWN telling me that they could hardly wait to finish so as to get a job. Who was that I wonder? (Mark Gill?, Lee Pippard? or Kerry Lunney?) Whoever it was: "you fool". Uni's a dream — one mega long holiday. Besides, you have all your life for work — why rush? Play around and maintain **some** of that chiidlike vitality. (Not all of it Luke).

As I was saying before — so you think you're a good enjuneer — half of you finishing in '84 won't finish your thesis. Well, that says it all. Perhaps we'll meet again in '85 — I know I'll be around, probably lazing about at Coogee Beach or relaxing at the Royal or Regent at my afternoon tea break.

Solution: That bit about the "no dirty . . . tactics", well, I'm sorry to inform you — but that's garbage. Tell the interviewer that as far as you are concerned, the other interviewee is an arsehole. And your the one for the job.

Forever Youthful,
ROB TREVISAN
Campbelltownite

(The Beginnings of Australia)



Engineer meets girl on Library Lawn.

HAVE FOUR YEARS OF GENERAL STUDIES IMPROVED YOU?

Try This Quick Test And See

Time Allowed: 40 Minutes

Text Book: Bell and Whitehead, Basic Electrical Engineering

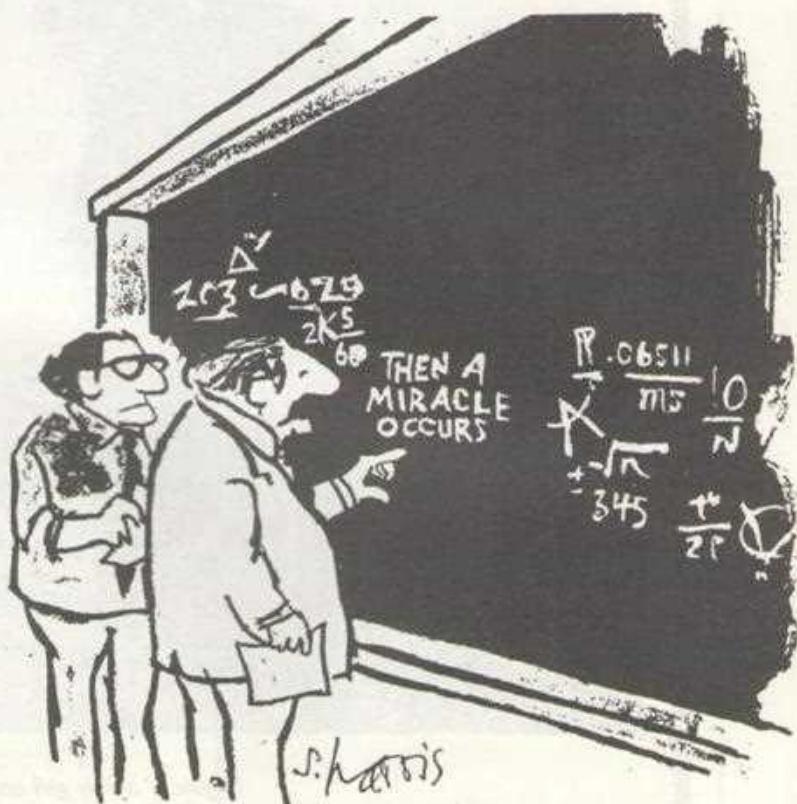
All questions to be completed.

1. **HISTORY:** Describe the history of the Papacy from its origins to the present day, concentrating especially but not exclusively on its social, political, economic, religious and philosophical impact on Europe, Asia, America and Africa. Be brief, concise and specific.
2. **MEDICINE:** You are provided with a razor blade, a piece of gauze and a bottle of Scotch. Remove your appendix. Do not suture your work until your work has been inspected. You have 15 minutes.
3. **PUBLIC SPEAKING:** 2,500 Riot-crazed immigrants are storming the local Citizens Advice Bureau. Calm them. You may use any ancient language except Greek or Latin.
4. **BIOLOGY:** Create life. Estimate the differences in subsequent human culture if this form of life had developed 500 million years earlier, with special attention to its probable effect on the British parliamentary party system. Prove your thesis.
5. **MUSIC:** Write a piano concerto. Orchestrate and perform it with flute and drum. You will find a piano under your seat.
6. **SOCIOLOGY:** Estimate the sociological problems which might accompany the end of the world. Construct and experiment to test your theory.
7. **ENGINEERING:** The disassembled parts of a high-powered rifle have been placed in a box on your desk. You will also find an instruction manual, printed in Swahili. In 10 minutes a hungry Bengal tiger will be admitted to the room. Take whatever action you feel appropriate. Be prepared to justify your decision.
8. **POLITICAL SCIENCE:** There is a red telephone on the desk behind you. Start World War III. Report at length on its sociological aspects, if any.
9. **PHILOSOPHY:** Sketch the development of human thought; estimate its significance. Compare it with the development of any other kind of thought.
10. **GENERAL KNOWLEDGE:** Define the Universe. Describe in detail. Give three examples.

NOTE: A pass mark of 85 per cent is set.



Don't disturb lecturers outside
of consulting hours.



THE ELECTRICAL PROPERTIES OF INFANTS

Infants have long been known to grow into adults. Recent experiments show they are also useful in applications such as high power circuit breakers.

by I.M.A. Sadiste

Infants have been a common subject for biological and psychological researches for most of this century, but only in the last few years have their electrical properties been seriously investigated. The work of Brainerd in the 1930's on the electrical structure of proteins gave some indication of the electronic applications of organic materials but the onset of World War II (and a piece of shrapnel embedded in his skull early in 1941) brought an abrupt end to his research. Brainerd did, however, realize the natural potential of infants in electronic circuitry, as indicated by this passage from his research notes:

While testing 1-Aminocyclohexane-carboxylic acid at 20,000 Volts I considered how nice it would be if it were my annoying 4-year-old nephew between the electrodes. This morning that ~~★†★~~ brat used last month's research notes as cat litter.

(April 1, 1939)

Inspired by his brilliant foresight, a team of researchers at the Canadian Wikemikong (Manitoulin Island) High Voltage Research Establishment & Day Nursery (CNRCHWHREDN) — for security reasons known as the Wikwemikong Day Nursery — began a series of experiments to investigate the basic electrical properties of young children. The promising results of these early studies, which are outlined in "I am Joe's Baby" (Reader's Digest, June 1974), encouraged an attempt at more sophisticated researches. It was these later experiments which were to eventually bring forward the inherent capabilities of the "natural bundles of organic material" as electronic components.

The early experiments were primarily concerned with the basic electrical properties of infants — resistance, capacitance, and inductance. Typical results from these tests were outlined in Table 1. Capacitive and inductive measurements yielded little unexpected information, but there were hints of non-linearities in the resistance figures, particularly at high voltages. As it was soon learned, many interesting things happen to infants at applied voltages above 10,000 volts.

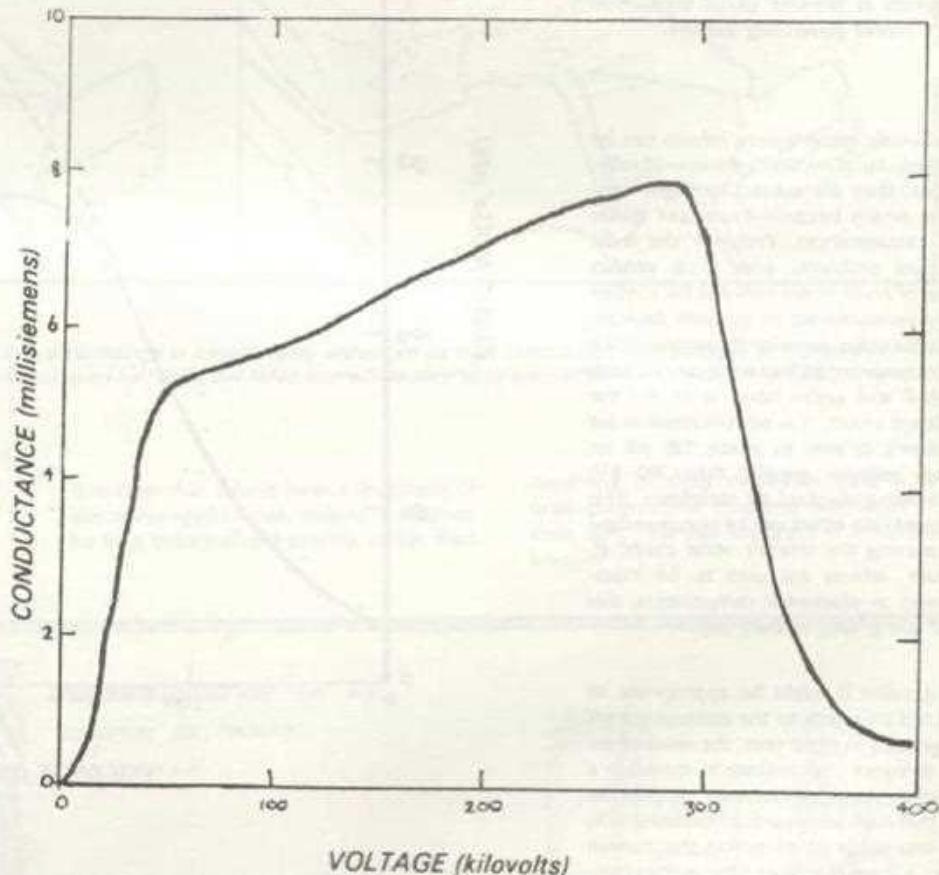


Figure 1. CONDUCTANCE vs VOLTAGE. There is a rapid rise in conductance at low voltages, followed by a long plateau and a sudden drop at Meltdown.

At these high voltages, currents approaching 10 amperes were required for some measurements. Equipment capable of providing such large power outputs was unavailable at the main Wikemikong laboratory, so the ultra-high voltage experiments were soon moved to the Bustard Island Remote Testing Facility. Here, one power supply was capable of providing 10 amperes at 100,000 volts for sustained periods, which was ideal for the planned mega-watt range power dissipation on infants.

Based on the results of the early experiments on resistance, the first investigations in the second phase of research involved the conductance of infants across a moderate voltage (0-400,000 volts). In these experiments an infant was connected to the outputs of a precision power supply, and the current through the infant was monitored with an extremely accurate ammeter. The connections to the infant were secured to the fingers and toes using heavy duty alligator clips. (This method of connection was later discarded,

SUBJECT NAME	AGE (years)	WEIGHT (kg)	RESISTANCE (ohms)	CAPACITANCE (μ F)	INDUCTANCE (mH)
Kenny Laste	0.9	12	134	197	213
Mona Lotte	1.2	15	168	218	190
Willy Survye	1.4	17	172	244	181
Wanda Shawk	1.6	21	234	302	169

Table 1. ELECTRICAL PROPERTIES of infants show interesting variations from subject to subject with changing specifications.

because above about 17,000 volts, spasmic vibrations in the infant's limbs caused the clips to be shaken off. When the clips were taped on, the high power dissipation caused a temperature increase sufficient to melt the tape at about 23,000 volts, and the clips were once again thrown clear. Both these problems were eventually solved by the use of spot weld connections.)

Although meltdown occurs at very high power levels, infants can be used successfully as 'fail-safe' circuit breakers in electric power generating stations.

As electronic components, infants can be expected to function almost ideally, however, they are subject to slight non-idealities which become important under some circumstances. Probably the most significant problems arise from various sources of noise — not only electrical noise usually encountered in modern devices, but 'audio noise' peculiar to infants, which can become an added annoyance. Both electrical and audio noise is by far the prominent effect. It is not uncommon for an infant's scream to reach 120 dB (at applied voltages greater than 200 kV) before being silenced by meltdown. This undesired side-effect can be circumvented by removing the infant's vocal cords. If, however, infants are ever to be mass-marketed as electronic components, this would add greatly to their cost.

At this point it might be appropriate to point out that, due to the extremely high voltage used in these tests, the researchers took stringent precautions to maintain a high safety standard. However, despite the most thorough safeguards to minimise risk, it is impossible to eliminate the human factor. A case in point: One enthusiastic technician, eager to obtain a sample of the remains of one infant seconds after meltdown, suffered a nasty burn to his left middle finger. In general, though, accidents of this nature were rare indeed — a splendid example of the profound respect these scientists hold for the preservation of human life.

The simple theory outlined in "Electroshock Therapy for Fun and Profit" (Vic Svarorub 1971) predicts the theoretical curve shown in Figure 2. However, actual measurements yielded a curve which closely corresponds to theory only up to about 120 kV. Beyond this voltage, the level of audio noise is consistently less than that

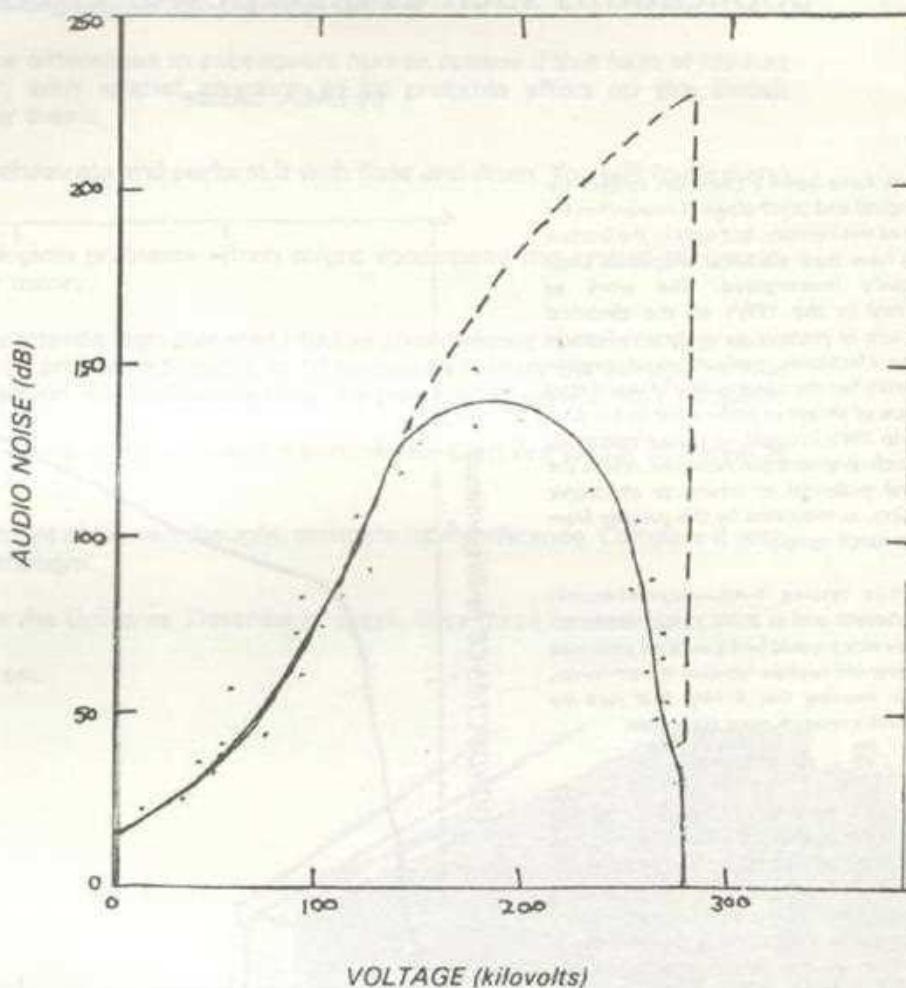


Figure 2. AUDIO NOISE varies significantly with applied voltage. Above 120,000V deviations from theory (dashed curve) become quite high (solid curve). This deviation was a godsend to the experimenter's hearing.

predicted by theory, as the infant's blood curdling screams of unrelenting torment are reduced to feeble whimpers by the fusing of vocal cords. The researchers, unable to endure the cries of any living creature in such intense agony, were eventually forced to wear earplugs in the testing room.

The unusual geometry of infants, created by the presence of protruding arms and legs, suggests another application: the use of infants as antennae. For example, by soldering extra limbs onto the sides of an infant, a passable "Yagi" antenna may be constructed. A variety of permanent antennae configurations can be obtained

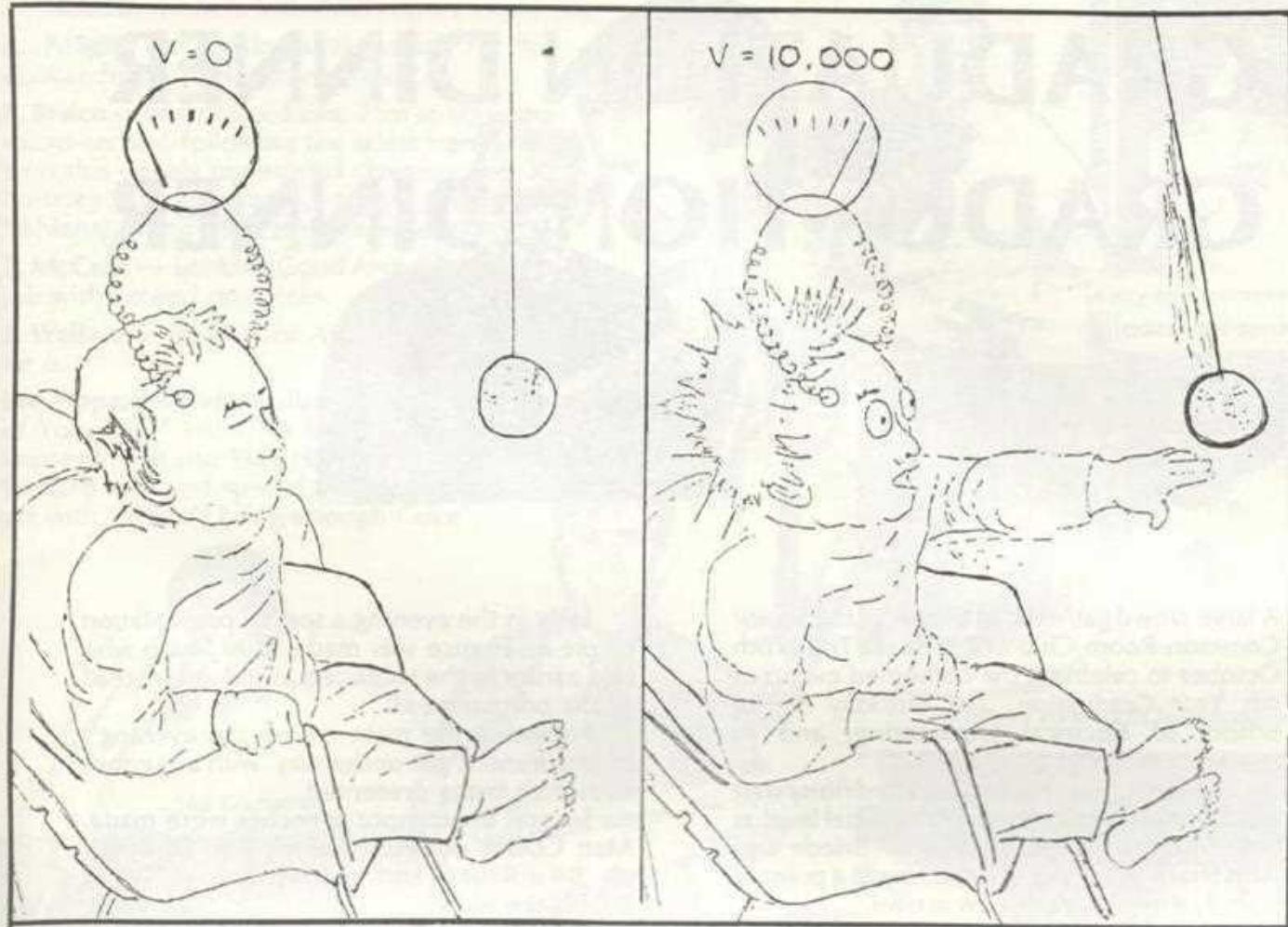


Figure 3. INFANTS' AWARENESS of its surroundings is considerably enhanced by light stimulation with voltages in the tens of kilovolts. Sleeping infant ignores a gaily coloured ball (left), but takes immediate playful interest when motivated by the electrodes (right).

by arranging limbs as desired, and then injecting slow-hardening silicone cement into the blood-stream of the infant.

It is clear that infants have a multitude of electronic applications: Indeed, it may not be long before proud parents, rather than

dreaming of their children's careers as brain-surgeons or Einsteins, may boast of their son: "He has the eyes of a circuit breaker".



announces he will
continue to lecture
Electronics II

Student actually locates
the right book in
Open Reserve.



GRADUATION DINNER

GRADUATION DINNER



A large crowd gathered at the Bar of the Senior Common Room Club at 7 p.m. on Friday 5th October to celebrate the combined events of 4th Year Graduation, 21st Birthday of the School of Electrical Engineering, and to farewell Les Hill.

The night got off to a raucus and noisy start as staff and students mixed on a social level as never before. Peter 'Godfather' Briede and Alan Sharp (his trusty offisider) made a point of warmly greeting each new arrivel.

The standard of dress was extremely high. Special mention must be made of John Olip in tails, red bow tie, jeans and runners, and Mat Collins who appeared in a suit that his grandfather had apparently died in.

At 7.30 p.m. people moved into the dining area and sat down to an excellent meal served by Mrs. Mac and her staff. Red wine, white wine, orange juice and a keg supplied by ELSOC kept even the most demanding thirsts quenched.

Phil McCrae found the red wine much to his liking and spent a large part of the night bartering with other tables for more.

Early in the evening a special presentation of pie and sauce was made to Al Sharp who had earlier in the week requested this instead of the normal menu.

Following the main course the evening's entertainment got under way with a number of awards being presented.

Several impromptu speeches were made. Matt Collins on 'Punctuality'; Rob Downing on 'Bike Riding' and Ly Unewisse on 'Why I Joined the Navy'.

On a more serious note, Professor Neville Rees made a short speech in which he encouraged further dinners of this type. Professor Rees then presented Les Hill with a farewell gift of a photograph album. Les recalled earlier days at the University and following this the 21st Birthday Cake was cut and the revellers sang 'Happy Birthday' to the School (can you believe it?).

Coffee, cake, port and cheese ended the night, people danced and then we left. Thanks to Mrs. Mac and her staff for a tremendous night and I am sure that there will be many more organised by the ELSOC Social Committee.

I use and recommend . . .



Notable winners included:

E. Penglis — Horticultural Award for his outstanding knowledge of grasses.

P. Braico — best dressed award for an up to the micro-second following the latest trends. He won this closely contended category over K. Lunney (beachwear), Nimi (designer fashions), Anne McD (childrens wear).

P. McCrae — Looking Good Award for a great job with limited resources.

L. Welfare — Big Banana Award. Just because he is.

Lee Pippard & Pete Wallace — Greatest "Out of Your Tree" Effort for Lee's drunken sailor impression at the 1984 Harbour Cruise. Pete Wallace received special mention as support act with "I didn't bring enough Coke".



The Godfather

Holy Stripes Batman. This tie is horrific.

Sharpy announces his engagement.



A Wind Power Thesis?

Anne makes a late bid for cutest smile.

It's legal now, no need to hang out at the Exchange!



POINTS TO REMEMBER WHEN LOOKING FOR A JOB

by

**Kerry Trembath, Careers and Employment Section
The University of New South Wales**

Although the economy seems to be picking up, and the job market for graduates appears brighter than it has been for some time, there is still a good deal of competition for the available vacancies.

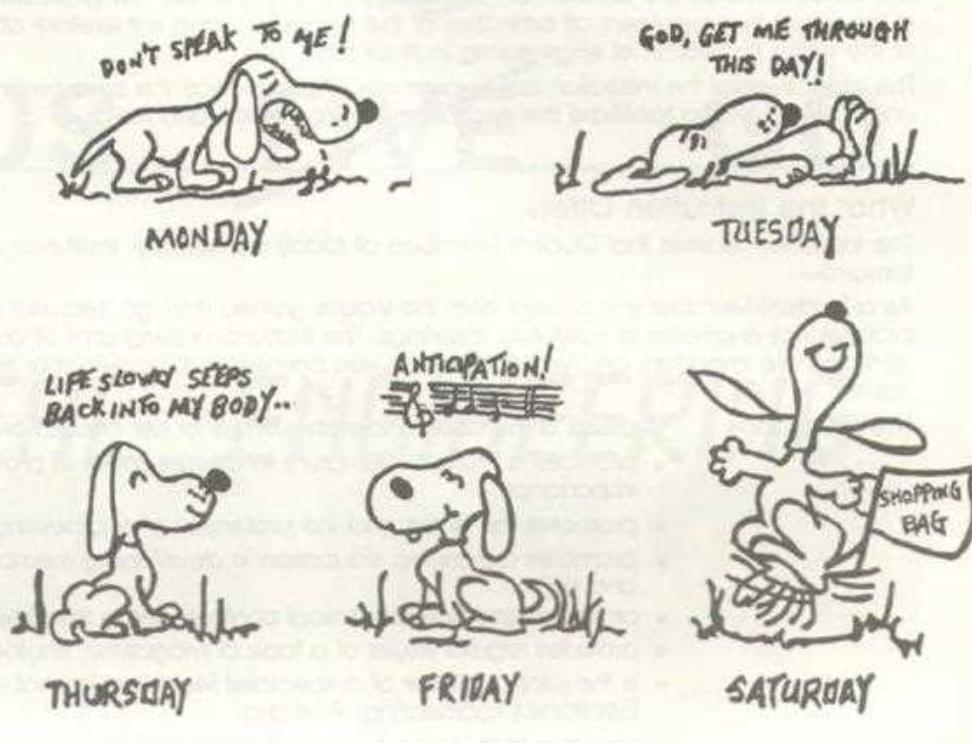
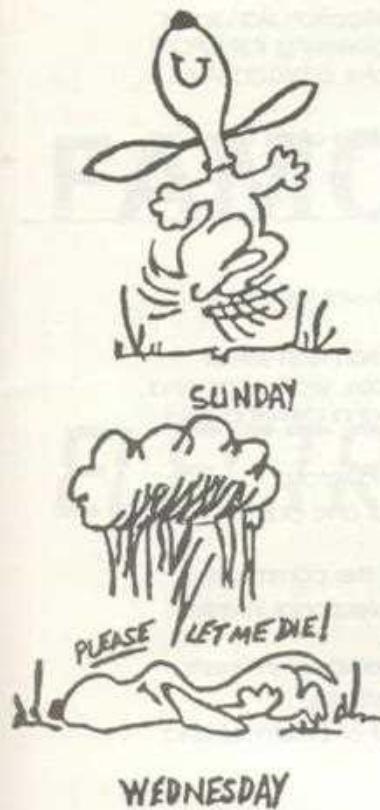
It's important therefore, to approach the search for employment in an organized and diligent fashion. I have listed below some of the major points students and graduates should remember if they wish to maximise their chances of getting the right job:

- You should start looking for job advertisements in the newspapers well in advance of the time you actually intend to start work — getting a job takes time and many employers call applications for jobs months ahead of when they will want the successful applicants to start.
- The Careers and Employment Section's Library contains files of newspaper clippings of job advertisements sorted by type of qualifications required — using the clippings can save you time (and money!).
- Remember that the job vacancies which appear in the newspaper are only some of the vacancies which will be available at any one time — other sources of information you can obtain from the Careers and Employment Section are:
 - Graduate Outlook (annual)
 - Forward Vacancies (quarterly)
 - Job Vacancy Bulletin (weekly)
- Remember also that you can write to employers about a job even if they have not advertised a vacancy — if you know or think you know that certain employers could use a person with your qualifications and interests, it often pays off to send a general application with your resume to those organizations.
- Lists of organizations to approach in this way can be compiled from your own knowledge and from friends, lecturers, etc., but also from the following sources which are available at the Careers and Employment Section.
 - Graduate Outlook
 - business directories e.g., Kompass, Key Business Directory
 - lists of organizations which have visited the University to interview students in your field
 - lists of organizations which have actually recruited graduates in your field in recent years.
- It is essential that your written applications be correct, thorough, and attractively presented — the Careers and Employment Section can provide free booklets to help you to do this (e.g. Work Wise, Finding A Job, and others) and can show you a video on the topic entitled Job Hunting.
- It is also essential that you prepare carefully for any interviews you might get to as a result of your applications — your preparation should include:
 - reading as much as you can about the organisation and about the kind of work being offered,
 - thinking about the kinds of questions you might be asked in an interview,
 - thinking about questions you might yourself ask the interviewer when given the opportunity.

(NB: The Careers and Employment Section can provide free handouts on preparing for interviews and can also show you any of a number of videos on the topic).
- Advice and help on any of the above can be obtained from the staff of the Careers and Employment Section, i.e.,
 - Miss Louise Waller
 - Miss Margot Newbury
 - Mr Kerry Trembath
- An appointment is not necessary to see one of the advisers (although booking a time can be a good idea at rush periods) and you are welcome to come in and use the facilities in our Library at any time during normal working hours (including vacations).
- We are located in Room LG05, Chancellery — opposite the main Library and next door to the Students' Union Office on upper campus.

The Work Week

by Bob Smith



Wally is picked on again.



Greymen interrogate Mario.



R. Downing displays what fell off
the back of a truck.

What is The Institution of Engineers, Australia – (I.E.Aust.)

The Institution is a professional learned society with a membership of 37,000. It was formed in 1919 by the amalgamation of various State engineering societies and associations into an Australia-wide body. In 1938 it was granted a Royal Charter. Included in the privileges conveyed by the Charter is the right of Corporate Members to use the title Chartered Engineer (Australia).

The Institution is the qualifying body for professional engineers in Australia. The qualification standards are determined by the Council of the Institution. It is one of the few professional engineering institutions in the world that represent all branches of the profession, and is therefore able to take a broad view of the entire profession of engineering in Australia.

The objectives of the Institution are to promote and advance the science and practice of all areas of engineering and to facilitate the exchange of information and ideas.

What the Institution Offers

The Institution realises that Student Members of today are society, institution and industry leaders of tomorrow.

As a Student Member you benefit from the values gained through frequent association with senior professional engineers at Institution meetings. The Institution's programs of conferences, workshops and seminars are important and valuable assets you can use to broaden your horizons and develop your career.

The Institution

- assists a member to identify with his or her chosen professional group.
- provides a professional forum to discuss issues of professional and public importance.
- promotes the status and the profession of engineering within the community.
- promotes continuing education in developing members' professional interests and skills.
- promotes specialist technical conferences in the areas of members' interests.
- provides regular issues of a topical magazine, Engineers Australia.
- is the joint-publisher of a specialist technical journal – Journal of Electrical and Electronics Engineering, Australia.
- provides technical reference library facilities.



Room 225.

250

FAMOUS ~~FIVE~~ GO

ELECTRICAL ENGINEERING



1984



Brains!

A country girl

A real hun-ey

following
Wally's
footsteps

F.M.
radio
Voice

Wedding Bells



What a
BORG!

Mr Gucci
1984



"But my mother's
waiting at
the station"

Windsurfer girl



Time to get
rid of some
worms

Luke's neighbour
but don't hold it
against him

Comedian

EVOLUTION
OF MAN AT
UNSW

Speed!

- Always arrives
7 min 10 sec after
lecture starts.



GW CLARKE
CLARKE

MP COLLINS
CLARKE

Usually
dresses at
120 dB

"You better be punctual or ..."

TINY CRANKER



KW CHIN



CH CHONG



SL CHONG



WT CHONG



IG CHONG



PW CHONG



SJ CUNNINGHAM
CUNNINGHAM



SR (CURTIS) LUNDIE
LUNDIE



MP CONNOLLY



FR COOPER



AJ COWLE
COWLE



P CONLE
CONLE



AG CRANER
CRANER



BD CROCI



EA DENNY



M DIAB



PV DO



SM DOMARS
DOMARS
I'm older
than I look

A Severed
Head

What
an artist

Monopoly on H.D.'s
and the Regent



AT DALKE



PA DREKING



HR DEMPSEY
DEMPSEY



AG DEMPSTER
DEMPSTER

Captain Kremmin
of the Star Corp.



FF DORIAN



RA DOWLING



SJ DREARY



W ENNIS



JG FENNELL



C FERRERO



D FIGOLI



CJ FINLAYSON

Voted most likely
to be a guest
of Her Majesty

Paul's
friend

Unis
Mate
Goofy
Donald's
Mate

Carpet
Removalist
Expert →



H. FRAPICCINI



P.G. FRIEND



C.J. GAN



H.J. GANI



G.L. GARCIA



P. GARRETT

BEEP
BEEP
Radar

everyone's

Matt, mineral
or vegetable

Wandering Eyes



G.J. HARGREAVES



H. HARRINGTON



D. HARRISON



S.A. HASSIM



P.G. HASSALL

Graduate from
Receptionist
Centre



I. HIRKA



S.C. HO

Mr.
Diplomat

Voted most
dressed
1984



M.L. FONSECA



R.C. FOX

Parts
his
Mo



C.H. GILL



S.J. GOH



M.I. GODDARD



K.H. GOM



Y.T. GOM



F.M. GONANO

ANIMAL
ANIMAL
OR
ANIMAL

Mr Mango
1984



G.C. GRANT



G.C. HADDAD



B. HAMILTON

Voted most likely to injure himself in a car

Collector
of
T-Shirts



R. HAUTMAN



B.A. HAYNES-LOVELL



D.J. HAYWARD



S.M. HENDRY



K.R. HEPPESTALL



C.Y. HEW

Coogee Bear

Talk to me about football, G'day Woger.



R. HOLT

JJ HORROCKS



JJ JOE

H. JOHNSON

Tallest EE you'll ever meet!

Has a thing about dead sheep



AF KLADNIC



MP KOCH



D. KONG



SP HOWE



MA RUBY



RF HUGHES



DR JAMES



RA JANSEN



KN JENKINS



CE JOSEPH



NY KAM



A. KANKEET



CJ KELLY



P. KEPROTES



PE KIERAN PETE

Mr. Jet-Set /Lag

The other tallest E.E. you'll ever meet!

Newlywed to aspiring physics PHD



KS EWAN



KY LAI



YE LAI



RMS LAI



CH LAI



JH LAI



GS LAU



WTJ LAW



EWS LEE



KK LEE



TP LEE



CK LOO



SK LEONG

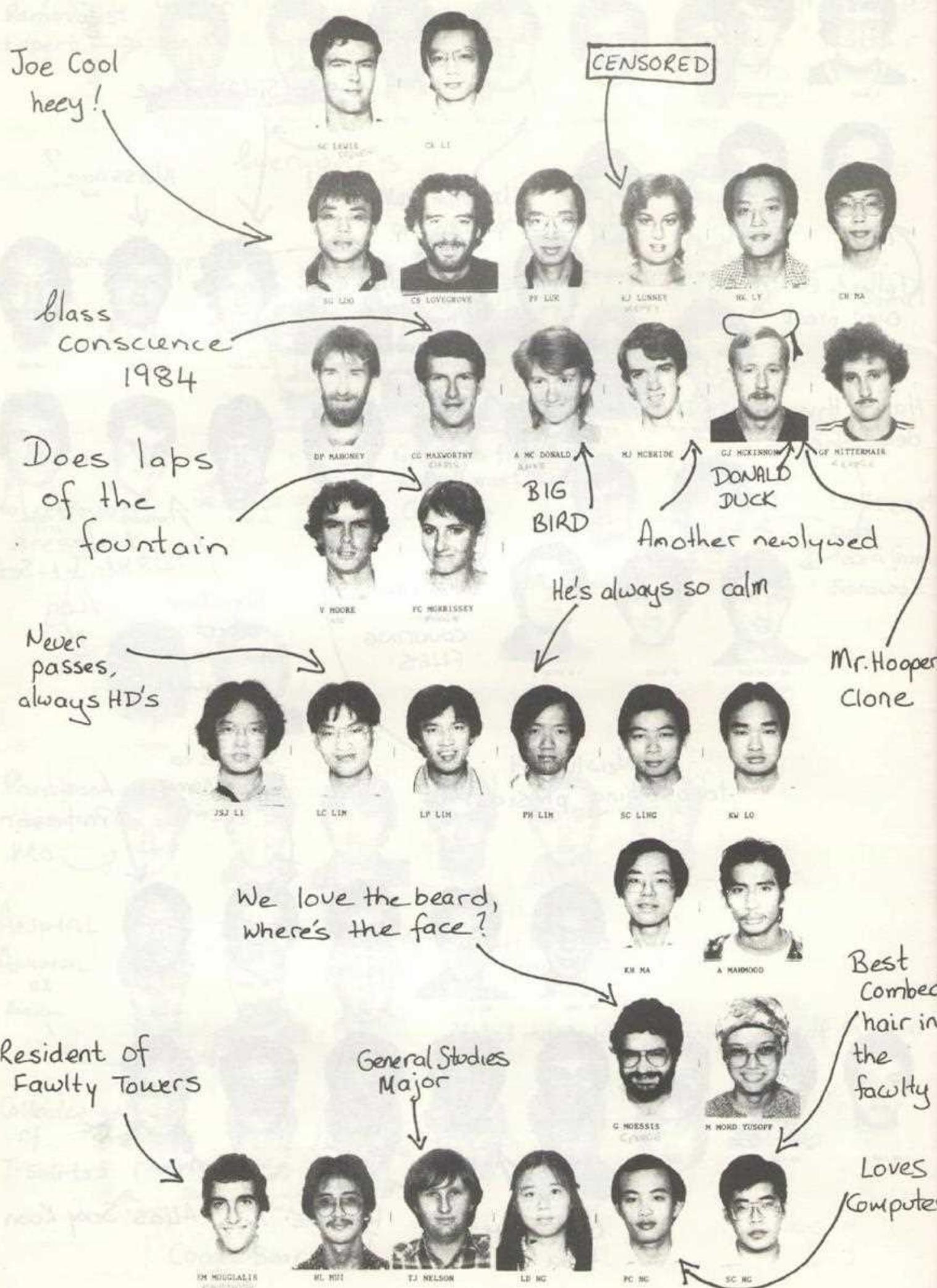
Best Story teller from K.L

WELCOME TO PENANG

Alias Sexy Koon

Mr Sid Damage

Massage?



general
Studies
major



Dick Smith
Whiz Kid

Graduate of McDonalds
School of management.



Comatose
on the
Harbour
Cruise



David's
Mate



Chubby
Cheeks

Where
do we
Start?



Double degree!

Mr Silencer
better than Bond
by six degrees



When
will
it end?

j

owns a
hot-rod
morris



Greek
God!

Caught with his
pants down

Slow means silly
or crazy.

She'll be right mate!



A. SOUSSA
ARTIST



SL. SOUTBORG
SHAY



BA. SPARKES



KF. STOREN



RA. STUDLEY



RA. SWANSON
EICEY



R. TANAKA



KK. TAN



TS. TAN



MK. TAN



K. TANG



GA. TEMPLETON



G. THOMAS



J. THOMAS
CHIN



SG. THOMPSON
THE MAN

Smoke less

Alfa-wrecker,
mountain climber
and thrill seeker

Claytons
Publicity
Officer

Brotherly
Love



TH. TAN

Codename:
'Shanghai Joe'

TEBU means
"sugar cane"

My radar is
working at
last



RC. TICHENHORST



SR. TING



JK. TJIONG



BM. TOTH



S. TOTH



TMK. TRAS



RM. TRICK
DAGGER



T. TU



FS. UBAUDI



DA. URSTI



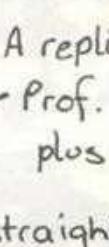
L. UWHISKE



G. VARATHARAJAN



AF. VAUGHAN



Weird
Al Weir

Big man
Small car

the way
to a
man's
heart is
through
his
electrode

so straight
so nice
so Catholic

Sonic
boom
boom



PT. VIEERBOOM



PT. WALLACE
PETE



AJ. WEIR

Yobbos
Repulsive
&
proud of it

which is the real mister Wong

Mr. Wong! Mr Wong!
... ohh! what kind were they?



Nicest smile
in Elec. Eng.

Mirror, mirror
on the wall
who has the
grooviest hair
of all

found
an
Aussie
girl

still looking
for an
Aussie
girl

Biggest ambition
free return ticket
to Hong Kong.



Justin's
friend

WALLY!
into leather
& bondage to
Elec. Eng.

Beer
Major

CROSSWORD SOLUTIONS

LAYER 1

1	M	I	2	C	R	O	3
4	E		5	Y		X	6
7	T	I	C		I		
A			8	L	E	D	9
11	L		E		E		10

LAYER 4

27	S		28	H	I	29
	O			L	I	
31	U			C		C
	N			D	I	P
36	D	O		37	S	U

LAYER 2

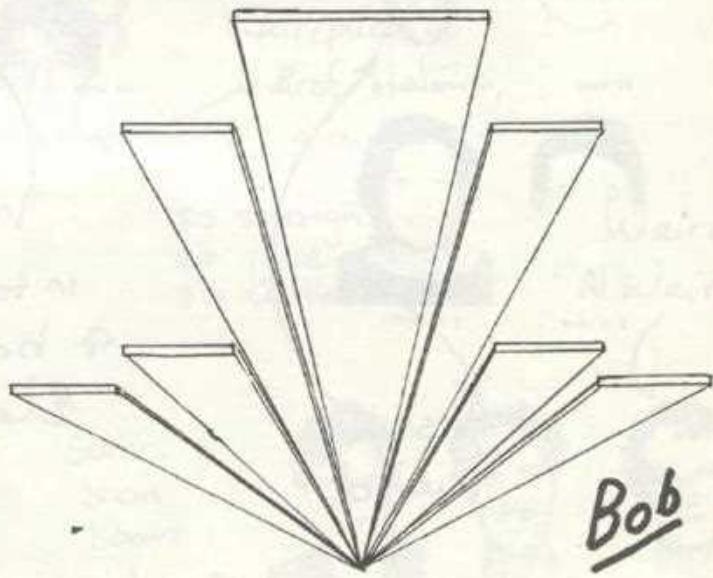
12	O		13	P		
	N		E	O		
	E					
14	B	E	T	A		15
0			V			16

LAYER 5

E		38	C
	M	O	O
V			D
	S	E	
I			

LAYER 3

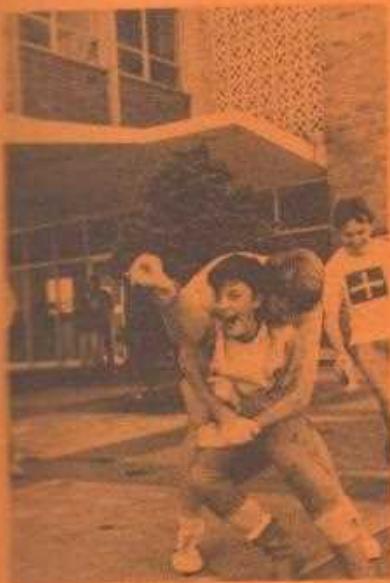
17	R	C	A	18		19	T
20	D		L	21	D	22	R
23	L	O		24		25	I
	A				M		
U		D	L				



farewells



IF I RELEASE YOU NOW,
THE LEGION WILL SEEK ITS
REVENGE. SO, WHEN THE
MOON STARTS TO DESCEND
— YOU MUST DIE!

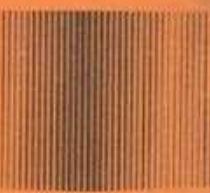
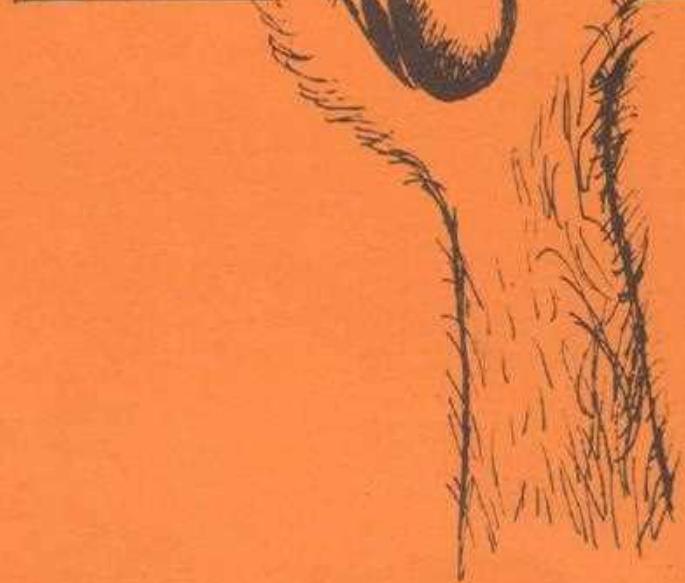
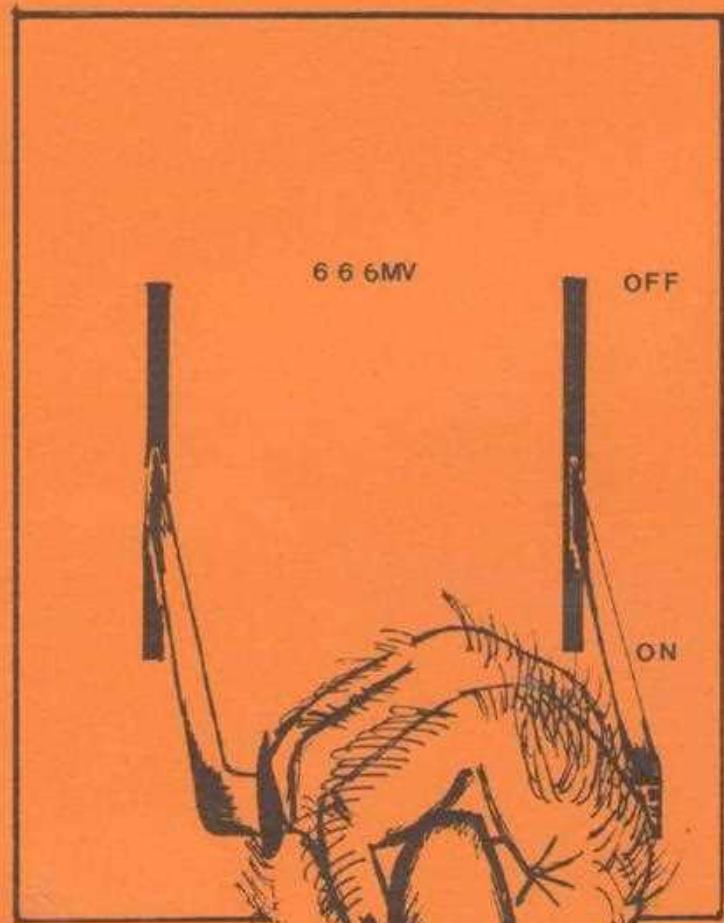


Just one more drink!

GENTLEMEN! THERE ARE TWO HOURS
TO SUNSET. WITH YOUR PERMISSION,
I'M GOING BACK TO MY QUARTERS
TO THINK THIS OUT. SOMEWHERE, I
KNOW I HAVE THE SOLUTION.



MATES OF THE YEAR



1984