



McGill

C e n t r e f o r

Intelligent Machines

CONFERENCE

Feedback Control, Nonlinear Systems, and Complexity

George Zames will turn 60 this year. To celebrate this event, a two-day conference (with the above title) is being organized to focus on three themes to which Prof. Zames has made fundamental contributions. The conference will be held on Friday and Saturday, May 6 and 7, 1994, at McGill University in Montreal. The general chair is Pierre Bélanger and the local organizer is Peter Caines. The conference is sponsored by the Natural Sciences and Engineering Research Council and the Canadian Institute for Advanced Research.

The event will consist of four half-day sessions, all plenary, by invited distinguished researchers, with a banquet on Saturday evening. Confirmed speakers include: M. Athans, J. Baras, R. Brockett, P. Caines, M.A. Dahleh, E.J. Davison, J.C. Doyle, T. Georgiou, P.P. Khargonekar, R.H. Kwong, S. Mitter, A.S. Morse, J.B. Pearson, K. Poolla, M. Safonov, M. Smith, E. Sontag, L.Y. Wang, J.C. Willems.

To register for the conference, or to receive more information, please contact Bruce Francis (francis@control.utoronto.ca) or Allen Tannenbaum (tannenba@ee.umn.edu)



Volume 8, Number 3,

March, 1994

Newsletter

LAST CALL FOR PARTICIPATION

Robotic Mechanical Systems Graduate Students' Forum

McGill University, Montréal
27 - 29 June, 1994

1) Forum Objectives:

To bring together graduate students conducting research on robotic mechanical systems by allowing them to present their work in order to generate discussion and exchange of ideas.

2) Call for Participation:

Graduate students are invited to submit a 250-word abstract. No complete papers are needed. Abstracts must be sent, in ASCII or LaTeX format, by electronic mail to Luc Baron at the address: lbaron@cim.mcgill.ca

3) Timetable:

Abstracts are due by March 15th, 1994. Authors will be notified of acceptance for presentation by April 1st.

4) Languages:

The official languages of the Forum are English and French. Abstracts, presentations and the discussion may be done in any of the two official languages.

5) Proceedings:

A LaTeX file of the compound abstracts accepted for presentation to the forum will be circulated to all the participants through electronic mail by June 1st, 1994. Printed copies may be available at the Forum, at a minimum cost and on request only.

6) Forum Committee:

Luc Baron, Department of Mechanical Engineering,
McGill University
Caroline Cloutier, Department of Mechanical
Engineering, Laval University

Sponsored by:

Canadian Committee for the Theory of Machines
and Mechanisms, Department of Mechanical
Engineering, McGill University, McGill Centre for
Intelligent Machines.

Submitted by Luc Baron

SAFETY AT CIM

We recently sent a message to staff and students asking for people to volunteer to help make CIM a safe place to work. I only received one response so I am repeating the message I sent hoping there is at least one other person out there who is interested in helping us out. So here it is again, please give it your consideration:

'As the number of robots, equipment, and people using the equipment increases in the labs, more and more people are becoming concerned about safety at CIM. We feel the time has come to look into this more closely. We are looking for two volunteers to take on the responsibility of regularly checking that the appropriate safety precautions are being taken at CIM. Professor Michalska is willing to help these two individuals. We feel the people using the labs would be in a good position to verify regularly that there are no potential hazards in the lab and to recommend appropriate procedures if the need arises. The research engineers and the students are frequently using the labs and we feel your involvement is necessary to make this work.

If you are interested in getting involved, please let me know at e-mail address: jmb@cim.mcgill.ca. Thanks very much.'

PGSS UPDATE – PGSS UPDATE – PGSS UPDATE

P GSS Election and Referendum ballots and information will be distributed on March 16th and

17th, and they will also be available at Thomson House. Ballots have to be returned by March 30th. Exercise your democratic rights! Also check the next PGSS newsletter for platform descriptions by the candidates.

PGSS Annual General Meeting.

Wednesday, March 16th, 18:30 at Thomson House. This meeting is for all PGSS members. Come see what your university-wide student association has been up to!

Annual St-Patrick's Day Party .

Saturday March 12th, evening - Thomson House.
Live Celtic Band - Great Fun.

International Women's Week Film Festival at Thomson House.

Special show times: Monday, Tuesday and Wednesday, March 7th to 9th, 20:00 and 21:30.

Monday March 7th:

- 20:00 Electra Tries to Speak (USA, 1982, 28min).
My mother is a dangerous woman (Can., 1987, 16min)
- 21:30 Ley Lines (Canada, 1994, 72min)

Tuesday March 8th:

- 20:00 Peel (New Zealand, 1982, 9min)
Passionless Moments (New Zealand, 1984, 18min)
A Girl's own Story (New Zealand, 1984, 27min)
- 21:30 A Winter Tan (Canada, 1987, 90min)

Wednesday March 9th

- 20:00 Pure Virtue (Canada, 1985, 16min)
Pure Sin (Canada, 1990, 22min)
Mz Frankenstein (Canada, 1993, 16min)
- 21:30 Orlando (UK/Russia/Italy/France, 1992, 93min)

Other Movies this month (at the regular times: Mondays at 20:30, Tuesdays and Wednesdays at 18:00 and 21:30)

- March 14,15,16: Flesh and Bone (USA, 1993)
- March 21,22,23: Alive (USA, 1993, 125min)
- March 28,29,30: The Joy Luck Club (USA, 1993)

Submitted by Marc Bolduc

NEWS AND EVENTS

☛ The new chair of the Engineering Computing committee is **Professor Daneshmend** of Mining & Metallurgical Engineering.

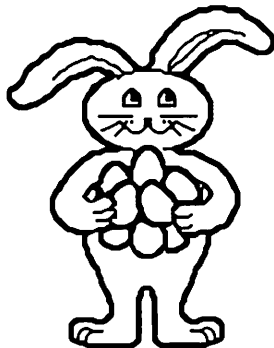
HATS OFF TO....

☛ **Farzam Ranjbaran** for faithfully serving the environmental cause for the last 6 months by regularly bringing our cans, bottles, and paper to the recycling bin downstairs. Thanks Farzam!

☛ **Paul Mackenzie** for installing the shelves and whiteboards in 416 proving engineers can actually be handymen too (and for saving CIM the installation charges). Thanks Paul! Paul deserves a second tribute for keeping us entertained each month with his Top Ten submissions for the newsletter. May he never run out of ideas!!

EASTER HOLIDAYS

☛ For your information, the University will be closed Friday, April 1 and Monday, April 4 for the Easter holidays.



THE MIDDLE OF THE OCEAN (The Ph D Anology)

(This article is from a student's perspective, an analogy of undertaking a PhD program of studies. Any resemblance to real-life persons is purely coincidental.)

Imagine that you have been dropped in the middle of an ocean (commencement of studies). Your goal is to survive physically and mentally and reach the promised land.

Finding a Log (Topic)

First you must learn to stay afloat, then to swim while learning to use the stars, moon and the sun (thunder, rain and lightning too) to help you navigate. To survive you will have to find a log (topic) to hold. As time passes you may find yourself grasping a better, stronger log. Occasionally there will be instances when you'll be confronted with so many logs that you'll end up wasting time jumping from one to another instead of concentrating on steering towards the land. Since your log is the only thing that will help you to reach your objective you'll want to explore it thoroughly (topic survey). You must learn to maneuver your log and steer it in a specific direction. Only after learning to steer effectively will you be able to start looking for the "promised" land.

Environmental Effects (Research)

Forces of nature such as wind, waves and cyclones will often alter your course. Sometimes you will end up steering in different angles following a thunderstorm (eg. someone else has already produced results). Sometimes the wind will blow you either in the desired direction (eg. papers/academics that support your methodology/results etc) or in the opposite direction (eg. academics/papers contradicting your work). Of course, some days the sun will shine brightly and finding your way will be a pleasure, whereas on other days clouds and rain will make steering extremely painful, but you must have faith and

keep going under all circumstances. Sometimes you'll be stranded by an ocean fog for days or weeks at a time. Somehow, you must learn to grope your way around and stay sane.

Sustenance (Financial Support)

The amount of food you will obtain will depend upon the ocean in which you are swimming because the amount of fish in the sea varies from ocean to ocean. Some oceans contain very little fish (TA \$520/semester) whereas others offer more substantial meals. Sometimes you may have to work out plans (eg. write a grant proposal) to obtain fish from the sky (Grant Agencies).

Coast Guards (Supervisors)

Some students may find coast guards in motorboats who will pick them up in the middle of the ocean and show them the short-cut to the land. However, in such a case you may not have learned either to swim, stay afloat, navigate a log, fish, etc. sufficiently well to then survive on land. Fortunately, such motorboat help is rare. There are some coast guards who will encourage a struggling candidate to steer in the opposite direction or to change their logs. The motivation for such advice should be examined carefully before embarking on such changes.

In the end, if you have pursued your goal, weathered the obstacles and maintained your direction... yes, you will eventually, proudly attain the promised land.

Any comments or further additions to this story (analogy) should be sent to Sandy K.Sandrasegaran (chess@cim.mcgill.ca) or 398-7159.



CIM TOP TEN

From the home laboratory in room 418:

Top Ten Signs you have watched too much Star Trek:

- ⑩ You argue with your chemistry professor because the periodic table doesn't include dilithium or tritanium.
- ⑨ Your car's bumper sticker reads: "Zero to Warp 9.7 in 12 seconds".
- ⑧ You have more than one pair of Spock ears in your junk drawer.
- ⑦ Your spouse left you because you wanted her/him to dress like a Klingon and torture you for information.
- ⑥ You say "make it so" frequently in casual conversation.
- ⑤ You tell people your thesis will be finished on Stardate 570614.2.
- ④ You actually consider dishing out \$300 for that model of the Enterprise from the Franklin Mint.
- ③ Instead of pressing buttons, you say "Deck 4" aloud to the McConnell elevators when coming to CIM.
- ② You insist your supervisor refer to you as "Number One".
- ① You fly into a homicidal rage whenever people say "Star Trek? Isn't that the one with Luke Skywalker?"

Submitted by Paul Mackenzie