



McGill

C e n t r e f o r

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Newsletter

Forum EGMSR/RMSGs Forum 1994

The Robotic Mechanical Systems Graduate Students Forum 1994 was held at CIM on June 29th. The event was co-sponsored by CIM and the Canadian Committee for the Theory of Machines and Mechanisms, whose chairman is Prof. Jorge Angeles.

The success of the event was due, to a great extent, to the very good participation of CIM graduate students. CIM members presented more than half of the 19 papers presented at the Forum. Although most of the 30 participants were graduate students and professors from universities, some notable figures from industry were also present, including M. Richard Horth of SPAR Aerospace, who is responsible for the mechanical design of the wrist of the CANADARM for the space station.

On behalf of the organizing committee of the RMSGs Forum, I would like to thank all the graduate students of CIM who submitted an abstract and presented their research work at the Forum.

Submitted by Luc Baron

CIM offices remain open on Fridays

A reminder that although the University Administration offices will be closed on Fridays until Aug 26 (incl.), there will always be someone in either room 409 or 410 at CIM to help you throughout the summer.

Help prevent theft

A reminder that ALL doors, whether to your office, to the labs. or to the Conference room MUST be locked when the last person leaves. Too often, an open door to an empty room is an invitation to theft. For everyone's benefit, LAST ONE OUT, PLEASE LOCK THE DOOR.

Please pay particular attention to the Vision and Robotics Lab (Rm 418). That door has been left open overnight on at least one occasion.

IRIS/PRECARN conference comments

I attempted to solicit comments regarding the IRIS conference in Toronto but only two people responded. (I know, you all wanted to comment but were away on vacation!). So here goes:

"Jennifer Mills was great - she arranged for our extra floor space, a wooden floor for the robot, and extra power needs quickly and effortlessly. She deserves a medal."

"I think the participants were impressed by the cooperation between people doing the demos and those with posters, at least in the vision group (could be true for others, I don't know). Demo people sent onlookers over to posters relating to our demo (Gilbert and Paul to Tal, Santanu, Mike, John for vision; Marc & Danny to Gal for the robot eye) and vice versa. People seemed to be impressed at how everything related. It gave the impression of true collaboration within the department."

"Mourad's BIRIS tracking demo was very popular. It just goes to show that things that move and interact with onlookers attract the most attention, especially to reporters."

A funny anecdote: "Overheard by one of the participants while trying to register for the conference, in the midst of a throng of befuddled academics, an industry attendee commented: 'this must be the PRECARN MIKE project -- Mobile Idiots in a Known Environment.'"

NEWS AND EVENTS

☞ **Congratulations to Michael Kelly** who won the poster competition for the Vision group at the IRIS/Precarn conference. His poster 'Where is it? What is it? Vision for Autonomous Robots', grabbed everyone's attention. It discusses the use of annular symmetry operators as a means for grouping edge information extracted at multiple scales. This makes it possible to identify where objects are likely to be within an image, and to coarsely characterize their shape.

The competition for the prizes at the conference was stiff because the quality of the posters was so impressive, especially the posters prepared by our CIM students (no, I'm not biased!!). I'd like to congratulate all the CIM students who prepared posters and demos for the conference - you did a terrific job!

☞ **New tenure positions:** Congratulations to Prof. L. Daneshmend from Mining & Metallurgy and Prof V. Hayward from Electrical Engineering who were both promoted to Associate Professors, with tenure, effective June, 1994.

☞ **Spring Convocation:** Ph.D. degrees were conferred on: Stéphane Aubry, Lee Iverson (Dean's Honour List, D.W. Ambridge Prize), Lin Lin (Dean's Honour List), Jiming Liu, Finn Wredenhagen.

CIM students receiving their Master's degrees were: A. Abu-Ahmed, Wassim Alami, Xianze Chen, Frank DiGuiseppe, Vincent Dubois, Roland El-Khoury, Ahmed Helmy, A. Hosseinzadeh, Ming Jian, Paul MacKenzie, J-F. Panisset, Robert Rohling, Samir Shah (Dean's Honour List) and Nicholas K. W. Sun (Dean's Honour List). Congratulations and our best wishes to all of you !!

☞ **Michel Pelletier** (thesis supervisor L. Daneshmend) successfully defended his Ph.D. thesis on May 25, titled "Automatic Synthesis of Compliant Motions for Robot Tasks with Uncertainty". He was placed on the Dean's Honour list for the Fall Convocation. Michel continues his employment at Hydro-Québec's IREQ research centre, pursuing further research and development in telerobotics.

☞ **Danny Grant** has become our newest Robotics Research Engineer, working with Vincent Hayward this summer.

WELCOME to

Ahmed Helmy joined the group in room 403 as a Research Engineer. Ahmed completed his M. Eng here at McGill and will work primarily in Control Research. Ahmed enjoys tennis and table tennis.

Alex Okapuu-vonVeh has just obtained his B. Computer Engineering and is now doing his Master's with Prof. Malowany. He was born and raised in St-Lambert but lived in Germany & Switzerland for 4 years. He hopes to travel to Australia & N.Z. on completion and then... who knows? Sports/hobbies include biking, skiing, tennis, home renovations (dangerous thing to admit!!) travelling & learning languages (German, Italian, Spanish).

Oliver Astley was born and raised in England and has lived in Canada for 6 years. Engineering is in his blood, both his father and grandfather are engineers. He says that he hasn't gone any deeper into the family tree but rumour has it that one of

his ancestors discovered wood heat. It was a great discovery but cave insurance rates went way up! Amid the bad jokes he will be working with Dr. Hayward on a Force Reflecting Hand Controller.

Francesco G. Callari, (Franco for short) is visiting CIM for six months on invitation by Frank Ferrie. He is an Italian Ph.D. student in Computer Science with a background in connectionist methods for scene analysis. He is actually from the Dept. of Electrical Engineering, University of Palermo but has come here after a year's visit with the Computer Science Dept. of the University of Colorado at Boulder.

Bon voyage and AufWiedersehen to

Manfred Husty who will be returning to his home in Loeben, Austria after completing a very successful visit at the Centre with Paul Zsombor-Murray and Jorge Angeles. The results of his research is being published as a CIM Technical Report. Before heading home, Manfred, Claudia and Christina are exploring Canada by driving to the West Coast.

PLEASE NOTE: We have been informed that because of a new McGill policy, bicycles are not permitted anywhere in the buildings. The University Administration is requesting that you leave your bikes locked outside the main doors. I will be requesting more information from the Administration regarding this policy.

B A T T E R U P !!

Here is the CIMbernetics game schedule; PLEASE come out & support us on the reservoir field....

- Mon, July 11 Fri, July 15 Mon, Aug. 1

For more info see our captain Paul Mackenzie

Articles & ideas are welcome. Please send them by e-mail to the editor. Deadline for publication is the 7th of every month.

Editor: Janet Burghardt (e-mail: jmb@cim.mcgill.ca)

Associate Editors: Paul Mackenzie
Kathleen VanderNoot

What does summer mean to you?

Summer...

sun, heat, thunderstorms;
noisy broken air conditioners;
thesis deadlines, job applications, annual reports, conferences;
my moving day, my friend's moving day, my cousin's uncle's moving day;
new love, new roommate, new plans;
weddings, travel, vacations;
....and to think that winter is only a few months away!!

What does summer mean to CIM people?

Moving:

Jonas August & Roland Kuhn caught the eye of a Gazette photographer with their ingenious method of moving their furniture; Thierry Baron moved so many friends he feels like a professional. Paul MacKenzie moved one floor up and devised a fool proof method of scaring off prospective roommates (see this month's Top Ten). Carlos Martinez has moved to an 11th floor apartment (the view is so spectacular he can see all the way to Mexico... on a very clear day).

Conferences:

For those of us who do not have the privilege of attending them it is a real pleasure to obtain your email messages such as these... "Greetings from Toronto - Sheraton Centre! Great Outdoor Swimming Pool, Sauna, Room Service, etc. etc. - you know what I mean.... But then, somebody has to do it." Well, it is good to know you are thinking of us. And speaking of travellers, did you know that Frank Ferrie is now an expert on L.A. high society?

Wedding plans:

Mike Langer is marrying Corinna Mohnhaupt of Bremen, on July 24 in Toronto & honeymooning at a private lodge near Peterborough.

James Elder who is from Vancouver, is marrying Laurie Wilcox, from P.E.I. on August 27 in Montreal. How's that for true coast-to-coast Canadian unity?

Marc Bolduc is engaged, getting married July 29, 1995.

Paul MacKenzie is avoiding marriage altogether.

Vacations:

- Marc - pre-wedding honeymoon in Switzerland
- Anna - cultural assimilation in Japan
- Robert - exchange program in Japan
- Tal - pre-IRIS frolicking in France, Spain, and Portugal
- Mike K. - surprised his wife in a visit to Glaslyn, Saskatchewan; holidaying in Vancouver
- Mike L. - honeymoon in Ontario's capital of Newlywed Isolation
- Gal - trying to get on American TV by vacationing in Israel
- Gilbert - camping in and around Quebec
- Frank F. - trying to avoid riots in Los Angeles
- Joey - would like to go to Italy, but can't make it this year
- Martin B. - going to down some steins in Germany
- Paul M. - baguette and wine tasting in France
- Paul D. - this ex-CIMite learned the ways of the world in Amsterdam
- Dorothy - she won't tell us, but we suspect she'll be somewhere away from her desk
- Jennifer - swinging & sunning in Trinidad
- Janet - studying wave propagation and dielectric properties of sand on the beaches of Aruba
- Kathleen - pushing her broken bicycle along the Lachine Canal with her dog
- Daniel R. - trying to stand out in the crowd in the thriving metropolis of St. Boniface, Manitoba
- Kaouthar - setting up her own Jazz Festival in Marsa, Tunisia
- John L. - null space (it's quiet there)
- Santanu - delving into the lighter side of life in Stockholm.



Cleaning up can be fun, really!

In view of the many comments on the part of students regarding the often grubby, dirty, smelly Lounge, we feel it is high time to draw up a Lounge Policy which will make this room more attractive to all CIM members.

Besides asking all users to clean up after themselves, we thought of getting everyone involved. One suggestion would require that every student office be responsible for the cleanup of the Lounge on a rotating schedule, either on a weekly or a monthly basis.

Please email me your suggestions to help make your Lounge a more pleasant place to socialize. We would like to begin this new policy with the Fall Semester. So please let me know if you like this idea, or perhaps have a better suggestion.

Submitted by Kathleen VanderNoot

Associate Editors ...Wanted

Our newsletter needs associate editors. If you like to interact with the different groups at CIM and wouldn't mind soliciting articles from them (and like to see your name in print!) you'd be perfect! I already have two volunteers (see our masthead on page 3), but could use all the help I can get. If you're interested, please contact me at jmb@cim.mcgill.ca.

CIM TOP TEN

Top 10 ways to confuse your roommate:

⑩ Listen to radio static. Applaud frequently.

⑨ Put your mattress underneath your bed. Sleep down under there and pile your dirty clothes on the

empty bedframe. If your roommate comments, mutter "Gotta save space," twenty times while twitching violently.

⑧ Create an imaginary cat for a pet. Talk to it every night, act like you're holding it, keep a litter box under your desk. After two weeks, say that your cat is missing. Blame your roommate.

⑦ Whenever the phone rings, answer the door.

⑥ Whenever someone knocks, answer the phone.

⑤ Hang stuffed animals from your ceiling with nooses. Whenever you walk by them mutter, "You shouldn't have done that to me."

④ If you know that he/she is in the room, come barging in out of breath. Ask if they saw a fat bald naked Tibetan man run through carrying a hundred dollar bill. Run back out swearing.

③ Insist that your roommate refer to you by your Klingon name, Warg-NEK.

② Whenever you go to sleep, start jumping on your bed ... do so for a while, then jump really high and act like you hit your head on the ceiling. Crumple onto your bed and fake like you were knocked out...use this method to fall asleep every night for a month.

① Smile. All the time.

Submitted by Paul Mackenzie