



Newsletter

Au revoir ...

Since coming to McGill 20 years ago, **Steve Zucker** has established this university as one of the leading centers world-wide in the areas of computer vision and computational neuroscience. His academic credentials and accomplishments are extraordinary, with awards and honours from the world's leading institutions. Zucker's unique perspective, combining the insights of scientist, mathematician and engineer, has revolutionized thinking in at least two major research areas. His philosophy and point of view have also inspired several generations of graduate students and have had a profound effect on the culture and environment at McGill. Zucker's impact on a personal level has been no less compelling. He has always held his students to the same high standards that he insists upon himself - excellence, critical thinking, and scientific rigour in conducting research.

Sadly, Steve will be moving on this September to take up a new position at Yale University. He will teach in the Faculties of Electrical Engineering and Computer Science, and of course continue his research program. The decision to leave was not an easy one, involving long nights and countless discussions with family and friends. Steve's roots in McGill and Montreal are far deeper than anyone can imagine.

As much as we will miss him, Steve leaves behind a strong legacy that has become part of the culture of CIM and Electrical Engineering. On the other hand, New Haven is not all that far away, especially in today's wired world. After sampling the local cuisine it is highly likely that Steve will have to maintain some permanent tie to Montreal to assure a continued supply of life's essentials - like

Montreal bagels. Doubtless there are many questions that will remain unanswered for some time. Will Yale afford Loki the same privileged status that he enjoyed at McGill? Is Yale now further along the road to becoming America's McGill?

Anway, Steve, you go with our heartfelt wishes and will always be welcome here at McGill. Somehow "thank-you" hardly seems adequate, but we think you get the picture.

Submitted by Frank Ferrie

McGill Open House September 20-22, 1996

The date is only six weeks away!! As described in detail in the March newsletter, CIM will be present in the Engineering tent on Main Street as well as hosting tours on regular intervals during the three days. The Centre will be open to visitors of all ages and all walks of life, from 2 to 9 on Friday, from 9 to 9 on Saturday and from 9 to 5 on Sunday. In order to organize this properly, we need everybody's help. Volunteers are needed to set up and dismantle the exhibition in the tent; to man the table in the tent during the three days; to act as guides for the tours and to help with the various demos. That's a lot of hours with a lot a work but the more volunteers we have, the less each of us will have to work. Once again, let's make this a great CIM Team effort!! Please email <manager> to sign up and tell us "how, when and where" you would like to help. Don't hesitate to ask for more information also. A meeting date will be announced later to coordinate the schedule.

In conjunction with this Open House visit, the week of Aug. 19 - 23 has been designated as "Clean-up Week". We will be supplying cleaning fluid and

cloths to tidy up ALL work stations. All hands on board!! We need at least one volunteer per office and three or four per lab. Please sign up with <manager> if you are willing to lend a hand.

Thanks for your cooperation!

Liège, Mecano and 'frites'

Last June, I spent three weeks at l'Université de Liège in Belgium, where I had the opportunity of working with Prof. Michel Gérardin and his team responsible for developing the software package *Mecano* which I am currently using here at CIM. *Mecano* is a modular finite element package that has proven its ability to model mechanical systems with flexible elements, and is largely used in Europe. Samtech SA, which commercializes this software is now entering the North American market and is hoping to become an important competitor to packages like *DADS* or *ADAMS*. Under a collaborative agreement, CIM got this software free of charge for one year ending last June. Fortunately, during my stay, I was able to renew the license for another year in exchange for the results which we will obtain with the modeling of control systems using *Mecano*. Since *Mecano* was not originally developed to accommodate this kind of modeling, the work we are doing here at CIM is of great interest to them.

On the other hand, I was able to obtain a lot of help for my work, since *Mecano* is extensively used in Prof. Gérardin's lab. I now have many email addresses from people who will be able to help us in our research. If anyone is interested in looking at this software, it will be my pleasure to introduce it to you and to show you the documentation. Please email me at <emartin> or drop by room 431.

During this stay in Liège, I also attended the *Samcef User Conference* (*Mecano* is a module of *Samcef*) where I presented the paper entitled: "The Development of Feedback Control Tools for *Mecano* to Study Flexible Space Robotic Systems" written under the supervision of Profs. Angeles and Papadopoulos. This conference was a great opportunity to meet other users of this software and to exchange ideas on the different kind of modeling

applications. Moreover, Samtech SA presented their new products and their plans for the next improved version of *Mecano*.

Finally, I must confess that I obviously took the time to try out Belgian beer and chocolate - both lived up to their outstanding reputations! I also tested the Belgian 'frites', which became a delicious staple in my diet in view of the extremely high cost of living and my very limited budget. In all, it was a great experience!



Submitted by Eric Martin

NEWS AND EVENTS



See SPOTT move



From June 4 to 6, the entire Mobile Robotics Laboratory was moved to a showroom in the Queen Elizabeth Hotel for the IRIS/PRECARN Conference. This was to demonstrate the autonomous mobile robot navigational capabilities of the research done so far for the "Dynamic Reasoning, Navigation and Sensing for Mobile Robots" project under the IS (Integrated Systems) theme for IRIS (Institute for Robotics and Intelligent Systems). The decision control software

was distributed across three workstations at the Queen E. and eight workstations at CIM, using an optical fiber Ethernet hookup. An artificial office environment was built for the robot whereby the robot moved about from one place to another, avoiding obstacles, making decisions when doors opened and closed. The control systems demonstrated are called SPOTT (i.e. behavioral controller) and COCOLOG (i.e., logical based reasoning controller). Illustrated above are most of the people involved who helped set up and execute the demonstration.

Submitted by John Zelek

 Those of you who spend your time in the Mobile Robotics Lab will have noticed that there's a lot more room in the lab this week. The **Nomad 200 Robot** (the big black beastie) has gone to Portland, Oregon for two weeks to attend the AAAI '96 Mobile Robot Competition. Accompanying it, are **Nicholas Roy, Michael Daum, Xiaodeng Meng** and five computer science undergraduates. Under the expert tutelage of **Prof. Greg Dudek**, they will take on the rest of the mobile robotics field in a fight to the death for top dog in moving machines. More on this next month...

 **Seeking all musical CIMfolks!**



The CIM Choir is looking for new members. We welcome anyone with a hankering to sing; no prior musical experience necessary, although helpful. We are a group of students/alumni/staff of varying levels of musical training, looking to have some fun and share the experience and joy of making music together. Also on our agenda: the entertainment for this year's CIM holiday party! Don't miss out! We are on summer break for the month of August, but normally we meet every Thursday afternoon at 4:30 PM, in Room 437, for an hour.

For more information, please contact Anna Lin at anlin@cim.mcgill.ca.

P.S. Friends outside of CIM are welcome as well!

No News from Vienna

I was hoping that we would have some news from Daniel Rey, who is spending his summer at the International Space University in Vienna. Unfortunately, time is a very rare commodity at ISU. If you are still curious about ISU or about what Daniel is doing over there, you can take a peek on the WWW at:

www.event.tuwien.ac.at/isu96.html.

This summer every student has his own web page. Daniel's page is:

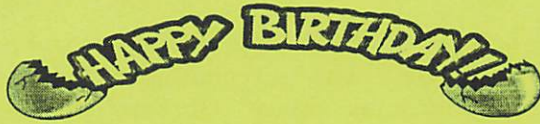
isulab.event.tuwien.ac.at/dept/arch_Rey.html.

And for more general information about ISU, you can go to www.isunet.edu

Hats off to ...

 From June 19 - 21 a "Conference on Geometry and Advanced Robot Kinematics", organized by Prof. Hans Sachs of MU-Leoben and Prof. Dominic Chevallier of École Nationale de Paris (Ponts et chaussée), was held in the wine region of southern Styria, in St-Martin, Austria. The conference, amid festivities with lavish food and drink and accompanied by a chamber string quartet, was to honor of **Paul Zsombor-Murray's 60th birthday**. Speakers in the symposium were, besides Profs. Sachs and Chevalier, a group of geometers, Profs. M. Husty, S. Bácsó and E. Obergaigner, and a group of roboticists. Profs. J. M. Hervé, J. Duffy, M. Keler, B. Roth, and J. Angeles. The "Laudatio" address was given by Manfred Husty who began, "This special scientific session represents a tribute to Paul ... we are deeply grateful for his contributions to our subject and the work he has done to bring different scientific communities together." and ended, "Concerning our field of research Paul has realized that for modern research in robotics old results in geometry can be

invaluable and by his own experience he has also realized that there are people in old Europe who still know the old stuff. Therefore especially the Austrian geometricians are grateful to him for his support, the many questions he raises and the encouragement to continue our work." Happy belated birthday, Paul!!



➔ **Ex-CIMite**, James Elder and his wife Laurie have accepted tenure-track positions as Assistant Professors in the Department of Psychology at York University in North York, Ontario. James will be associated with the Institute for Space and Terrestrial Science (ISTS) and cross-appointed to the Department of Computer Science. The goal is to build up a highly interdisciplinary lab in human and computer vision. Just a (very comfortable) 4 hour train ride away from CIM - visitors welcomed with open arms!! Congratulations on your achievement, James.

➔ **Majid Ezzati**, another ex-CIM student, is in Kenya doing research for his Ph.D. which he is pursuing at the Woodrow Wilson School of International Public Policy at Princeton. He is studying the impact of technology on different cultures. He learned Swahili for this trip and will be examined on his mastery of the language before graduation. (He needs to be fluent in 3 languages.) Good luck, Majid.

➔ **S. Ali A. Moosavian** submitted his Ph.D. thesis on June 26, 1996, entitled "Dynamics and Control of Free-Flying Manipulators Capturing Space Objects" on which he has been working since 1992 under the supervision of Prof. Papadopoulos. The date of his defense is still to be announced and he is hoping that it will coincide with his son's home-coming in September.

For the Chocolate Lover in You

You might not believe this but a Chocolate Lovers Club exists in Montreal. It is called "Le Club des mordus du chocolat". The club has 60 or so members and organizes all sorts of activities always around chocolate tasting. If you would like more information or are interested in becoming a member, do not hesitate, come and see me. On the other hand, if you simply like to enjoy a good chocolate, here are some of our good addresses:

Chocolats Suisses
411A Grande-Côte
Rosemère
tel.: 621-8440

Confiserie Bromont
679 Blvd Shefford
Bromont
tel.: 534-3893

Confiserie Louise Décarie
4424 Saint-Denis
Montreal
tel.: 499-3445

Heyez Chocoiatier
45 Seigneurial W.
Saint-Bruno
tel.: 653-5616

Lescurier Chocolatier
1358 Van Horne
Montreal
tel.: 273-8281

Marlin
21 Cartier
Pointe-Claire
tel.: 694-9259

Palais Gourmand
430 Duluth East
Montreal
tel.: 847-0363

Just in case you didn't know, you don't have to deprive yourself of chocolate anymore if you are diabetic or hypoglycemic: sugarless chocolate does exist. Remember also that good chocolate is less fattening than commercial chocolate because it is lower in fat and sugar contents.

Submitted by Louise Cléroux

Articles & ideas are welcome. Please send them by e-mail to the editor. Deadline for publication is the 5th of every month.

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