

Control and Coordination of Multi Agent Robot System Experience Report

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I am one of the students who got to participate in the C&CofMARS program and I have to say it was an amazing and unique experience.

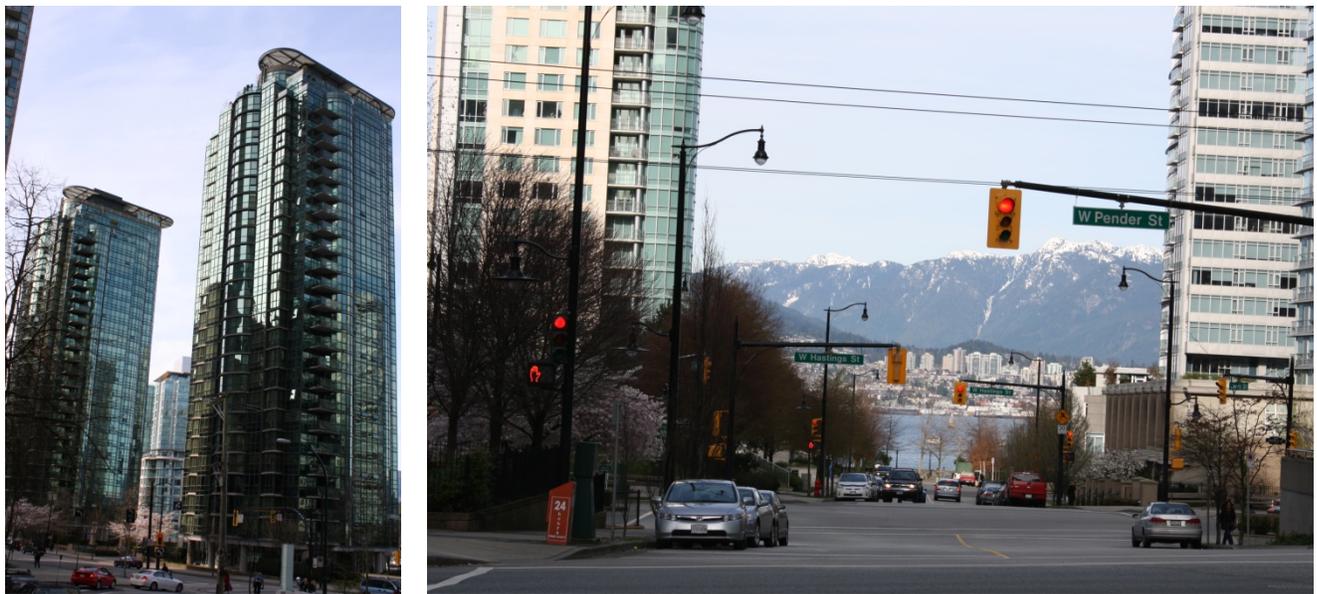
I got word of the program at my home university, Sapientia – Hungarian University of Transylvania. Me and several others interested talked with the local coordinator of the program, Dr. Márton Lőrinc, who filled us in on the details. We were going to participate in an exchange student program with the Simon Fraser University, working on a project, which was being developed in parallel in four different universities at the same time experiencing each other's cultures. It sounded exciting so we signed up right away. I was one of the lucky four who got accepted. With the guidance of Lőrinc we went through the application process and everything was set up by October.



We started preparation right away and waited in anticipation. We were contacted by Kótai Ádám, a student from the Budapest University of Technology and Economics, who was also participating in C&CofMARS with us.

Through the Simon Fraser University's Global Partnership System we met Sarah Inglis, who helped us with the preparations even before we left for Canada.

When we landed in Vancouver we found a city preparing for celebration, being the host of the 2010 Winter Olympics. Coming from a middle-sized city Vancouver was a new experience for me with its buzzing downtown area and beautiful suburbs. It was really well designed and it isn't just an asphalt jungle, there are parks everywhere even several lakes in the middle of the city . It was also amazing having both the mountains and ocean right next to each other, the views were breathtaking.



The city is already multicultural and very diverse, but with the Olympics people from all over the globe met here in celebration of this world uniting event. We were lucky that the exchange program coincided with the Olympics and we got the opportunity to be there on this wonderful event.

The city in itself was a sight worth seeing, but with the Winter Olympics it was amazing, the streets were full of events from street performances to live concerts and flash mob parties. The night sky was lit up by the colorful lights and fireworks and everyone had a great time.

The only problem was the lack of snow, ironically we experienced one of the mildest winters in Vancouver, it didn't snow in the city for the whole duration of the Winter Olympics.



Canadians as a people are wonderful, I have to admit I didn't know a lot about Canadian culture and customs before I arrived here but I learned a lot mainly from interacting with them, learned of their history through the social history course at the university . They are friendly and welcoming to outsiders, very polite, proud of their heritage and their country.

The SFU student society organized lots of events and trips so there was always something fun and new to do from sightseeing, participating in the residence sports event and going to pubs to ice skating, curling and paintball.





Aside from the organized events there were a lot of things to try, with the guide of our GPS buddy Sarah, we did. We tried the local cuisines, visited the less known attractions. We went to the Capilano suspension bridge and also visited its surroundings, went ocean kayaking on Bowen island, visited the Aquarium, the planetarium Planetarium, Stanley Park, the famous Granville street, even saw a car show at one of the stadiums. BC truly is deserving of its motto, Beautiful British Columbia.

The university itself was also amazing, although it is relatively small by Canadian standards, I was impressed by

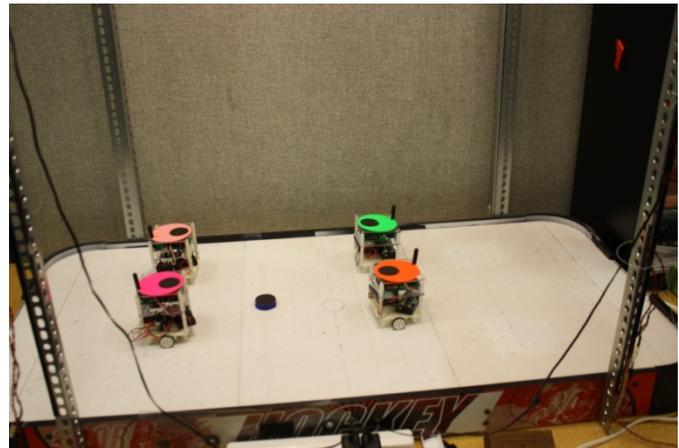


the size, layout and general organization of the main campus. It has a lot of facilities not just for studying and research but also for sporting activities like the football and soccer fields, the swimming pool and three gyms. The buildings themselves are beautifully designed and some of them have an unique look to them, so much that the campus was used to shoot several scenes from movies and TV shows, I really liked the overall design and organization.

There student society is very active having dozens of interest groups for everyone.

With the courses we took we had a chance to see how the education system worked in Canada and how it compared to the one from Romania. The two courses we took were Modern Control Systems with professor Mahdi Alavi and Social History of Canada with professor Alan Seeger. We got the chance to learn a lot about Canadian history and social evolution.

We also participated in the special project C&CofMARS, with the guidance of professor Shahram Payandeh. Our two universities developed the project in parallel and it was interesting to see how the same problems were solved with different methods. We brought our software platform from SHUT and implemented it at SFU making the necessary changes and developing it further.



We rewrote the communication protocol, the low level control (calculates speed and angular velocity needed to get to the destination), fixed some compatibility issues and added new functions like the archiving and internet communication. We learned a lot during the time we worked on the project and it was a real satisfaction seeing the fruits of our work.

The C&CofMARS program was a great opportunity for us and I am thankful that I had the chance to be a part of it. It goes to show how much we can learn from each other by working together and sharing our knowledge and culture with others.

I will have fond memories of this amazing experience and hope that others will have the chance to take part in it. It is a real motivator to surpass obstacles and reach our full potential as professionals in our fields and as people.

