

Internship at Tohoku University

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Research Title: Dual Arm Robot Manipulator

Supervisor: Prof. M. Uchiyama

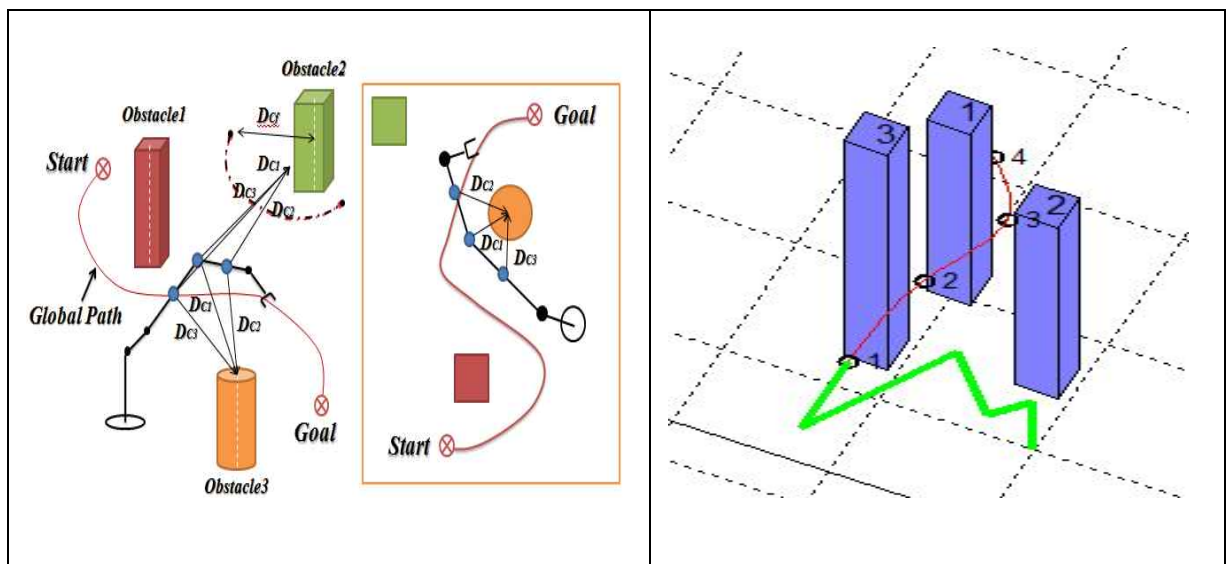
Duration: Oct. 3-Dec. 23, 2011

Intensive Study

I studied about an optimal motion planning for industrial manipulators in Prof. Uchiyama and Konno Lab. There are many robots which I can use in my research such as humanoid robots, industrial manipulators, and medical surgery robots. Also, there are many researchers who have a wide of experience in this area. So, they helped me get an idea to solve some problems related to an optimal motion planning for making an efficient work in industrial area. Through this intensive study, I was able to produce good results that it is possible to contribute to humanoid as well as industrial robot field.

Achievements

- Development of new inverse kinematics solution
- Local motion planning with obstacle avoidance
- Global motion planning with collision avoidance
- Optimal motion planning in real time



Various Events

For my stay in Tohoku, There were various events as the traditional manner. Among them, what I remember most is that I joined to a special ceremony of a party called Imoni. Every year, People gather in a riverside place of Hirose and they make a special soup using a natural ingredient which is similar to potato. I just loved the taste of the soup. And I had a time to be more friends with my co-workers. I would like to make the same soup when I return to my country.



Trips in Tohoku



Japan is famous to many travelers as its scenic beauty in winter season. It just was indeed as I have heard. I went to Zao mountain of Yamagata in Tohoku when it was so snowy. I took a cable car which is able to move me to the peak of the mountain. At the peak of the mountain, the temperature was -10°C but I felt like much colder because of the wind chill. Despite very cold conditions, I could see very wonderful and magnificent views that I cannot explain using a word. The whole world was covered with snow and trees appeared as unique shapes. So, it seems that the trees are called snow monster.

At the conclusion of internship

During internship, I could improve my specific knowledge through lots of activities such as joining to meeting, to seminar, and to discussion for study. I think that it is possible to continue to improve my research by my experience when I return to my country.

For my stay in Sendai, I felt that Japanese are very kind and polite to foreigners who should adapt to unfamiliar environments. So, thanks to the kindness of people, I could stay without inconvenience, although I don't know Japanese.

This was my first time for joining to international internship program. I am sorry that this time passed very fast before I achieve my real goal. But it was very good to experience new things on a different culture, environment, and research system. I think that these experiences will make me strong to stand different situations.