Humanware Innovation Program Internship Report

Internship Experience Report (If you participated in an overseas internship, describe your internship experience in English.)

The internship was a fantastic experience for me even though there were problems on preparing the things before the internship. The main problem I faced was before going to the place I was going to do the internship. Due to the time zone differences, it was really difficult to communicate with the people in charge of the project in order to define the possible tasks I was going to do. Also, I learned the importance to understand the working environment before going to the internship because that influence a lot on the performance of the required tasks.

The most significant knowledge I gained through the internship was how companies and universities can work together. Even though, my internship was on a university, the project - which we were working on- was for a company. I could understand the importance of the times for companies and how the companies interact with the universities in Peru. I notice that the companies mainly focus on the result of the prototypes they require while the university was more focus on publish documents from their designs. Sometimes, the prototype design is place before the research. The researchers sometimes cannot focus only on research due to the exigent prototype the companies require. Moreover, the research sometimes had small budgets so the quality of the prototype the university can elaborate depends on it.

I also understood the different type of policies the foreign universities manage in order to produce prototypes. Usually, there is a manager for each project and the general manager of all the projects. In the projects, some students participate in order to do some experiments for their thesis. Usually, the general manager is not so deeply involved on the projects and the structure of working is flat. The hierarchy is not so predominant, so the students are able to express their ideas as if they were researcher's colleagues. I think this environment contribute a lot to new ideas and improve the original prototypes they had. Moreover, the environment of working was warm and everyone could contribute to the projects as much as others require. Because of the flatness, the project's progress is really fast and they can accomplish task efficiently. In the same way, I appreciate the advices and the working environment the general manager (Professor in charge) let us have. I saw how everyone work on their own timing without missing the objectives of the project. The mentality was really opened, so everyone was able to share the information without worrying about stealing ideas. There was a feeling of trust on all the projects and they complement their work optimizing all the social resources they have, from the secretaries to the professor.

Internship Experience Report (continued from the previous page)

In the internship, I improved my programming skills and my knowledge about robotics systems. Moreover, I learnt some basic concepts of mechatronics in order to develop robots. On the contrary, one of the goal of the internship was to conduct and experiment to evaluate the interface we developed in contrast with another type of interfaces. We couldn't have enough time to conduct the experiments, but we were able to understand that it is possible that the interface with object oriented is possibly more easy to use because the people in the lab understood the working process faster than other interfaces they had to face before. I think that one month is not enough time for developing a system in order to conduct an experiment, but it is enough time to start with the basis for a future research. I will use this information as a planning experience that would be useful for my future project goals.

An important point about the Peruvian academia in robotics in contrast to the Japanese academia is that they focus their effort on get papers about designing robots. I think that this is because they need to get budgets and research on third world countries is not well supported. One of the biggest advantage on this field, it is that the working time is less than researching, so the students are able to learn faster. Another advantage is that the projects are focused on developing a final product so as the engineering process is really fruitful. The disadvantage is that they don't have enough budget neither time for researching. I think the ideal scenario for them would be having more people focusing on researching and at the same time, developing a product. The host country has delicious food that It is easy to find almost everywhere. The safety of the university is incredible and I think that the country is still growing. I think that the commodities prices were a little expensive for the type of live the people have on the country. I think that one of the biggest problem were about the weekend activities because I was so focusing on finishing what I have to do on the university that I consume almost all my time on researching about how to solve the problems I was facing. Even with that tide schedule, I was able to visit some beaches of the city and some theaters to watch some good stages. Also, I was able to see colonial structures I was not able to visit before.

I believe that research should be used to contribute the development of society, so combining industry and academia, the society could grow faster than working separately. I think that the structure of doing research from the engineering vision will help me to conduct more efficiently my experiments on the future and the internship itself has contribute a lot on my personal project management vision.