

Report on completion of the short-stay study abroad program in FY 2008

School and Dept.	School of Physical Sciences, Dept. of Functional Molecular Science
Name	Marilou Macasieb Cadatal
Destination country	Philippines
Receiving univ./institute	National Institute of Physics, University of the Philippines-Diliman
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I am Marilou Macasieb Cadatal, a third grade Doctor course student of the School of Physical Science and the Department of Functional Molecular Science of the Graduate University for Advanced Studies. I learned about the short-stay abroad program through an email sent by the student affairs desk. I was interested in applying because it would be a good opportunity for me to do research in another laboratory outside Japan. I talked with my supervisor, Prof. Nobuhiko Sarukura about the program and asked him whether it was feasible for me to join. He agreed and encouraged me to go to the Philippines. Prof Sarukura is currently collaborating with universities in the Philippines and he told me that it would be a good opportunity to renew his ties with the University of the Philippines if I went there.

I chose to go to the National Institute of Physics, University of the Philippines. The Institute is engaged in theoretical and experimental research. It was established in 1983. It is the best school of physics in the Philippines and aims to become one of the best in South-East Asia. The Institute offers the following degree programs: BS Physics, BS Applied Physics (with concentrations in materials physics and instrumentation physics), Diploma in Physics, MA Physics, MS Physics and Ph.D. Physics. On the average, the Institute has about 300 students for all levels in the baccalaureate degree programs and about 50 in the graduate degree programs per year. It also services the physics course requirements of over 1000 non-major students per semester and co-implements the graduate programs in environmental science and materials science of the College of Science and the College of Engineering, respectively. It also has research laboratories in the following areas: condensed matter, instrumentation, photonics, plasma, structure & dynamics and fields and particles physics.

On the other hand, the University of the Philippines (UP) was established in 1908. It is the only national university in the Philippines. It has seven constituent universities located in 12 campuses throughout the Philippines, where about 50,000 students thrive. The biggest and the main campus is in Diliman, where the National Institute of Physics is also located. UP's constituent universities offer 246 undergraduate and 362 graduate programs.



The University of the Philippines-Diliman administration building

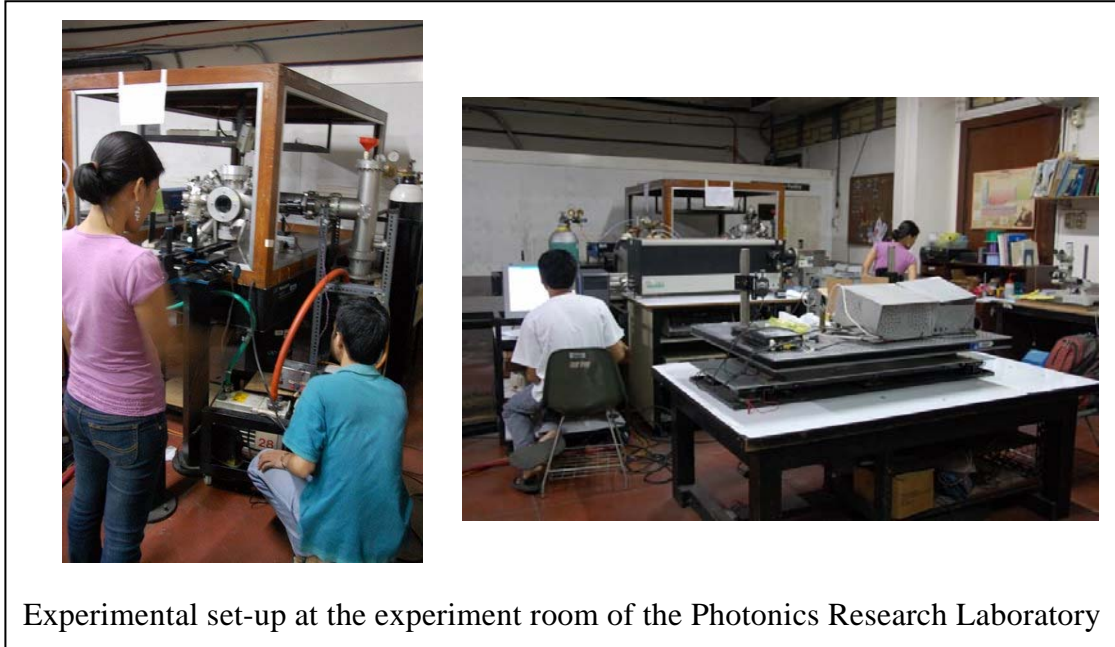
The Oblation, symbol of academic freedom in UP.

While at the National Institute of Physics, I was hosted by Professor Wilson O. Garcia. I worked at his laboratory, the Photonics Research Laboratory. It is the Philippines' principal research laboratory for theoretical and applied studies in laser physics and optics. It was established in March 1983 as the Laser physics Group by the National Institute of Physics, University of the Philippines to serve as the national center for research, development and advanced manpower training in the areas of laser and laser applications. It was tasked to spearhead the development of high-impact laser physics research capabilities of the country. On December 1999, to reflect the expanding areas of research to which the Laser Physics Group engages, the name Photonics Research Laboratory or PRL was adopted. The laboratory is currently a host to several undergraduate and graduate students doing research in the field of optics.

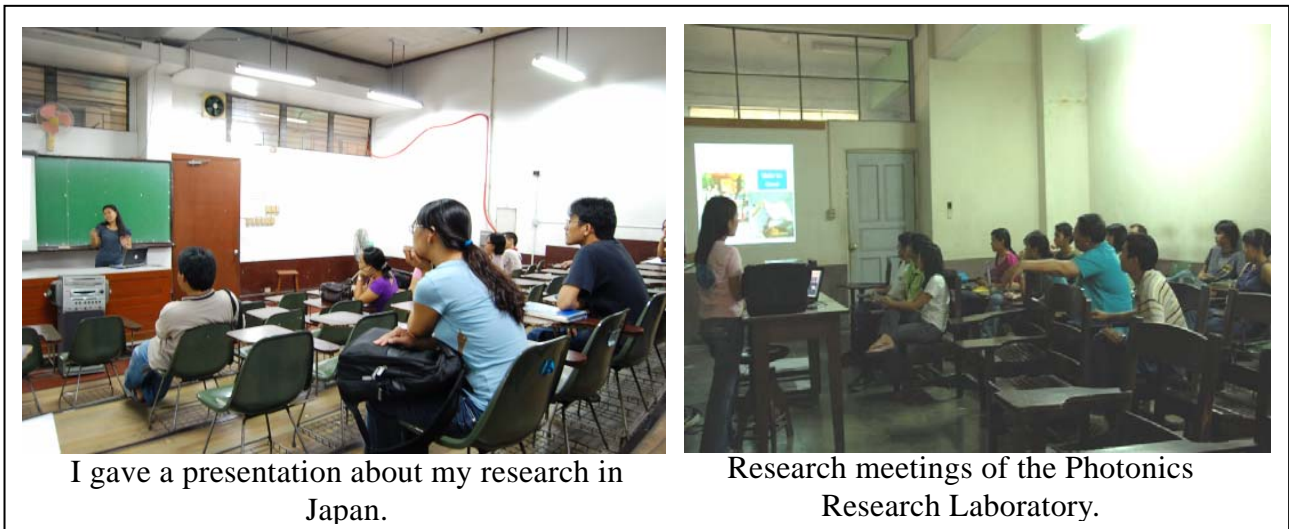


Members of the Photonics Research Laboratory together with me.

While I was in the Philippines, I joined the research activities of the PRL. Among the research is pulsed laser deposition of thin films. They were also generating multi-color laser light via stimulated Raman scattering in different gases. This research was interesting for me because my doctor course thesis deals with the generation of short wavelength laser light from a laser crystal. I learned many things by joining their experiments and by discussing about lasers and its applications.



I also joined in their weekly meetings and seminars, where I gave a presentation of what I was doing in Japan. The PRL holds its weekly research meetings every Monday in order to report on the progress of each person's research. It is also the time to discuss the latest research topics being published in top journals.



While staying at the laboratory, I also interacted with the students about research, study, and student life, as well as their hobbies and interests. They were all very friendly and passionate about their research and study. I also told them stories about my experiences as a student in Japan. They were very interested about Japanese culture and about the life of a foreign student in Japan. I did not officially register in any class because I will stay for only a month but I joined

some lectures. There, I was able to interact with other students.



Interaction with other students.

The classes are held in English. The textbooks being used are also in English. During research and ordinary day-to-day conversations, Filipino (the National language of the Philippines) is commonly used. However, everybody can speak and understand English so language is not a problem for foreign researchers. Even outside the university like at the department store, restaurant, or supermarket, English is widely understood and spoken by almost everybody. This makes life easier for a foreign researcher who cannot speak and understand Filipino.

The Philippines is a tropical country in south-east Asia. It consists of 7,107 islands which are classified into three major groups, the Luzon, Visayas, and Mindanao. Manila, the capital, is located in Luzon. So is the National Institute of Physics and the main campus of the University of the Philippines. As of 2008, the population is estimated at 90.5 million. The currency is the Philippine peso. The major transportation in the Philippines is the *jeepney*. Since it is a tropical country, it has two seasons, wet and dry. I also had the opportunity to visit some of the tourist attractions. Among these are Tagaytay and Baguio City. Tagaytay is 55km from Metro Manila, the capital of the Philippines and where the National Institute of Physics is located. Tagaytay is a famous tourist spot because it offers a breathtaking sight of the famous Taal Lake - a lake within an island within a lake. On the other hand, Baguio City is about 300 km north of Metro Manila. It is the “summer capital” of the Philippines because of its cool climate all year



Jeepney: Major mode of transportation.



Filipino food.



Taal lake as viewed from Tagaytay.



Camp John Hay in Baguio City.

round. Even when Metro Manila is 25-32 °C, Baguio City has temperatures around 15-26 °C.

Before leaving for Japan, the Photonics Research Laboratory had a party. It was a great way to end my visit.



Photonics Research Laboratory with my host professor, Prof. Wilson Garcia.