

# AGL NEWS

Academy for Global Leadership

005



## Special Issue on Off-campus Projects

### Off-campus Projects in AGL

Director **Isao Satoh**

Before completing the AGL program, all AGL students must participate in an "AGL Off-campus Project," which consists of introduction and practice for at least six months (at least three months for 1st and 2nd generation students). AGL Off-campus Projects are designed to provide students with the opportunity to test the academic expertise and the leadership skills honed in the Dojo Programs in real world situations. It is the chance to assess which aspects of their education are sufficiently developed and which require refining. In these projects, students engage in a practical project at a business, organization, or research institute in Japan or abroad related to their path but not directly connected to the contents of their thesis research. Although some students would prefer to work on a project directly related to their thesis, the AGL Off-campus Projects are intended for students to maximize personal development and exposure to new real-world situations.

In this issue, we feature reports from students who completed their Off-campus Projects in the latter part of the 2014 academic year. We look forward to the future activities of these students!

### 2014 AGL Off-campus General Overview

Off-Campus Coordinator **Kenji Furuta**

All of the seven AGL students participated in "Off-Campus Training" in 2014 had meaningful outcomes. Their activities were executed in various types of organizations such as private corporations, universities, and NPOs throughout the world (in Japan as well as in developed and under-developed countries). Although each circumstance was unique, their experiences had many similarities, including new approaches to understand the work processes deeper and to develop new processes. Their experiences drastically differed from those at the university, and will be useful in their future endeavors as global leaders. In addition to these tangible and intangible results, the human networks established during their works are priceless.

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FD Training held on Dec. 2014

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## Research project on the science and technology policy based in the University of California, Berkeley 2014.9.8 ~ 12.6

**Yuta Aoki** 3rd Year Doctoral Student, Department of Physics

From September 8 to December 6, 2014, I engaged in an AGL Off-campus Project at the University of California at Berkeley (UC Berkeley) located in Berkeley, California. My project aimed to clarify how UC Berkeley and the San Francisco Bay area became a world-leading center in scientific research that provides numerous solutions to global issues. Because I was employed by the Japan Society for the Promotion of Science as a research fellow at the same time, I engaged in cooperative research with the Berkeley group as well as joined various networking activities and visited several national laboratories around the Bay Area. Students at UC Berkeley are really active, and my research group was efficiently ran since every student contributed to the group management. Moreover, students and researchers at UC Berkeley have access to cutting-edge research facilities at the Lawrence

Berkeley National Laboratory (LBNL), which is located next to the campus, since the University of California operates LBNL while LBNL belongs to the United States Department of Energy.

There are several other national laboratories in the Bay Area, which are also operated by external contractors. This operational system is called the GOCO (Government-Owned/Contractor-Operated) system. The GOCO system plays a key role in transferring fundamental research outcomes to society quickly. Throughout my stay, I learned about the source of the dynamism in Berkeley and the Bay Area, and established a foothold to work in the United States.



## Research project on conflict resolution techniques at Stanford University 2014.9.28 ~ 12.26

**Mayu Watanabe** 2nd Year Doctoral Student, Doctoral Course of Business Law Program, Graduate School of International Corporate Strategy, Hitotsubashi University

My three-month AGL Off-campus Project took place at The Martin Daniel Gould Center for Conflict Resolution Program at Stanford Law School where I mainly focused on theory and practice of mediation and negotiation. Besides conducting research, I attended law school classes such as "negotiation" and "facilitation for mediator" as well as participated in discussions and role simulations. To carry out empirical research, I visited NPOs and courts as well as interviewed professionals in this field.

I learned that the distance between academia and practice of law seems intimately short in the U.S. because the judicial system with regard to dispute resolution has been developed through

trial and error. Many of the scholars are actively involved with projects outside of university, which enabled to bridge both sides.

Upon returning to Japan, I decided to continue devoting myself to research using an ideal approach to benefit society as a whole. My experience abroad helped me to develop comprehensive and wider views toward my career as a researcher. The off-campus project was not only a valuable opportunity for me to deepen my knowledge academically, but also a precious opportunity to create a personal network inside and outside of Stanford. In addition, because I stayed in the heart of Silicon Valley, I was able to observe collaborations between academic and start-ups, which has broadened my perspectives. I enjoyed every moments of my stay at Stanford and sincerely appreciate for the wonderful opportunity that AGL provided.



## Project for capacity development for promoting rural electrification using renewable energy 2014.9.30 ~ 12.16

**Jouju Uechi** 2nd Year Doctoral Student, Department of Environmental Science and Technology

As a JICA intern, I spent nearly three months from the end of September to mid-December at JICA in Kenya working with a rural electrification project based on renewable energy. Specifically, I studied the feasibility of their rice husk gasification power project.

Through this experience, I deepened my understanding of the capability level required for experts to perform their jobs, and learned a lot about JICA, their counterparts, and companies engaged in projects of international cooperation. Also, I discovered that the project involved many risks and barriers, such as low public security (high crime rate), fear of terrorism, inadequate infrastructure, differences in values and cultural aspects, etc. I was able to enhance my own capabilities of risk management and project management through this experience. Prior to visiting Kenya, I had traveled to approximately 20 countries, both advance and developing. However, this one was my longest overseas trip and my first visit to sub-Saharan Africa.

I was very fortunate to have some fruitful off-campus experience when I was not working. During my stay, I often participated in all sorts of weekend events that helped me build networks with many interesting people, including company employees, World Bank staff, international NGO workers, young volunteers, locally-hired company employees, freelance professionals, entrepreneurs, etc. I was strongly inspired by their individual strength and unique backgrounds that went far beyond my understanding and imagination. In addition, I learned about many aspects of this region, such as the international relationships among east African countries, the local diet, cultures, religious beliefs, social, political and economic situations, etc. I am sure this experience in drastically changing Kenya will serve as excellent food for thought and continue to be a precious memory for many years to come.



## Research project on venture financing at Goethe University 2014.10.10 ~ 3.31

**ZHIQI MAO** 2nd Year Doctoral Student, Doctoral Course of Business Law Program, Graduate School of International Corporate Strategy, Hitotsubashi University

As part of the AGL Off-campus Projects, I was fortunate and partook in a research opportunity at Goethe-University Frankfurt am Main. The main topic underlying my research was to a comparative study of the German capital market and to investigate the venture finance system in Germany. After settling in Frankfurt, my research was mainly conducted in the form of lectures (and seminars), conferences, on-site visits, and interviews with financial institutions and companies. With the development of economies and technologies (particularly the advent



of the Internet), the world has become narrower and "flatter". It has been called an era where the solution to emerging problems resides not within one country but on a global scale. Due to this paradigm shift, I want learn to see the bigger picture, communicate more effectively with diverse people, and become an active participant on the international stage. This is why I decided to study in Japan, but I am equally grateful for the opportunity for the overseas experience in Germany.

Besides conducting research, the most beneficial aspect of the visiting scholar program was finding the growth of inner strength to overcome obstacles. During my three months, there were not only challenges of overcoming language and cultural barriers, but also the joy of making new friends and interacting with strangers on the street. By embracing the kindness of others, learning to appreciate their uniqueness, and honestly communicating, I overcame these obstacles. In addition, learning about the diversification in the German school system and the educational concept about independently seeking truth will be very useful for me when I become a teacher in the future.

## Domestic Company



## Organic EL light source development project at an optical equipment manufacturer 2014.6.30 ~ 12.26

**Akihiro Kimura** 2nd Year Doctoral Student, Department of Organic and Polymeric Materials

I interned at an optical equipment manufacturer for six months. During my time, I learned about leadership in the value creation

process, business creation process, and solution creation process. I belonged to the R & D team that focused on organic light emitting devices. The concepts and methodology used in this research greatly differed from university research, especially the pace of research and the emphasis on cost-effectiveness because the outcomes were absolutely required. I'm certain that these experiences will make me a better leader.

## New business development project in an international consulting firm 2014.10.1 ~ 2015.3.31

**Motohiro Takayasu** 1st Year Doctoral Student, Interdisciplinary Graduate School of Science and Engineering Department of Electronics and Applied Physics

Through AGL's Off-Campus Projects, I've participated in a half-year internship at an international consulting firm beginning in October of last year. The company provides management consultation both domestically and internationally irrespective of industry, and requests come in continuously from client enterprises.

When I considered exactly what this company does to earn such trust, I realized it is the uncompromising standards of the employees who carry out planning. Through actual day-to-day operations, I observed the employees unwavering commitment to excel at their jobs. This inspired me to strive for a similar dedication to excellence without

compromising the current conditions and while seeking new solutions to the challenges at hand.

Currently, I'm involved in investigating the conditions of the company with aims to create an enterprise business plan document. I highly value the feedback from other employees as I move forward with this project as it allows me to improve my contribution. While repeating the PCDA (plan-do-study-act) cycle, I've had realized solutions that I was initially unable to imagine.

Through my Off-Campus Project, I became keenly aware of how my own ways of thinking affect the outcome, while simultaneously realizing the importance of seeking new solutions and maintaining excellent standards. I believe that I'll put what I've learned through Off-Campus to good use in the near future.



## New business development projects in a weather business company 2014.12.1 ~ 2015.2.27

**Ayako Yagi** 2nd Year Doctoral Student, Department of International Development Engineering

My major is urban meteorology. Because I would like to work in the weather business and conduct weather research after earning my PhD, I asked a weather company to accept me as an internship student for three months. While there, I engaged into two tasks: analysis about the relationship between commodity sales of convenience stores and weather, and suggestions to optimize commodity orders of convenience stores based on the weather forecast. My supervisor let me do these tasks by myself freely.

Although the topic differed from my research, the analytical approach was similar as both extract valuable features from complex data. So, I was able to apply the skills and tools that I use in my research to this project. Based on my experience, there seems to be similarities between research and business in the approach to understand things

(e.g., how to look data and organize information), but the specialized knowledge learned in the PhD course is not very versatile.

I asked my supervisor about basic information of the clients and the users (store managers) when I began to consider the new weather contents. He was well versed about the clients' expectation and could recognize many of the on-site store managers' voices due to participating in store-manager training sessions. His participation in this training demonstrated his commitment to customer service. I found that adopting this kind of attitude is important to create a service that satisfies the clients' needs.

I am fortunate to have the opportunity to experience the potential of weather information in business and consider new usages of weather information during my internship. I am grateful to the weather business company for the experience.

## To students aiming at global leaders

### Message from Prof. Sadaoki Furui, Master of Dojo for Science and Technology

Professor Sadaoki Furui, who has been teaching at AGL since its establishment, is leaving on March 31, 2015 to focus exclusively on his role as the president of TTIC. Below is a message from Prof. Furui for the students of AGL and anyone who aims to be a global leader.

Master of Dojo for Science and Technology **Sadaoki Furui**

"Global leader" is a person who can demonstrate his/her leadership under international environments. Number of such Japanese persons is unfortunately very small, comparing with other developed countries. There are various styles of leadership, and they need to be selected or combined properly according to the circumstances. It is also important to master your own leadership skill which balances with your nature. Leadership does not mean controlling people, but it gives good effects to people and provides the best ground for the people to grow. You cannot become a leader for yourself satisfying your desire, and it is rather achieved by request or appointment by other people. I hope you aim at becoming such a person.

Most importantly, I wish you study and conduct research very hard in your specialty, aiming at a person respected by your Ph.D thesis created based on your ability as a specialist and intellectual thought. Ph.D students in US study very hard. I wish you achieve capability which is comparable with US students. Although it is not easy to participate in AGL activities in parallel with the study and research targeting a Ph.D thesis, I believe you have joined AGL with resolution for such difficulty. You always need to pay attention to your time management for AGL activities and your Ph.D research.

Since it will become easy to obtain as much knowledge as you like owing to the information technology, even though it will be still important to study new knowledge, it will become more important to polish your ability and wisdom for demonstrating your creativity by utilizing the knowledge. It will become crucial to obtain "solving power" and "creative power" (the power to find problems), based on the awareness for "why?" and "imagination power". I wish you obtain such capability at AGL.

I have had various new experiences and learned a lot, since I started working at a university in US roughly two years ago. I am learning a lot of issues through my management responsibility, which could not be learned when I was working as a researcher in US. There are a large number of world top-level people in US, whom you cannot easily meet with in Japan. I encourage you to try hard to study and work under a high-level environment as soon as possible.

A moderate ambition and a moderate sense of humiliation create a desire to improve yourself and give you an opportunity to cultivate yourself. You should not have excessive self-conceit feelings, and you need to know your ignorance and incompetence in many areas. Even after obtaining a Ph.D degree and a certificate of studying at AGL, you will start your career from the bottom of the heap. I hope you will make all possible efforts every day under such environment to become highly evaluated, respected and trusted as a mature person from your colleagues or related people.



#### Career

Received B.S., M.S., and Ph.D. degrees in mathematical engineering and instrumentation physics from the University of Tokyo in 1968, 1970, and 1978, respectively. In 1970 he joined the Electrical Communications Laboratories of NTT. From 1978 to 1979 he was a visiting researcher at Bell Laboratories. In 1986 he became head of the Fourth Research Section at NTT Basic Research Laboratories. In 1989 he became director of the Speech and Acoustics Laboratories at NTT Human Interface Laboratories. In 1991 he became director of the Furui Research Laboratory. In 1997 he became a professor at Tokyo Institute of Technology in the Graduate School of Information Science and Engineering. In 2011 he became Professor Emeritus. In 2011 he became a Master of Dojo for Science and Technology at Academy for Global Leadership on Tokyo Institute of Technology. Since 2013, he has been President of the Toyota Technological Institute at Chicago. He is engaged in a wide range of research on speech recognition, speaker recognition, speech perception, and speech synthesis, among other areas. He has received the Achievement Award from the Minister of Science and Technology, the Achievement Award from the Minister of Education, Culture, Sports, Science and Technology, the NHK Broadcast Cultural Award, the Okawa Prize, and the Purple Ribbon Medal from the Japanese Emperor. He has received various awards for his achievements, contributions, and published works from the IEEE, the ISCA (International Speech Communication Association), the IEICE, the Acoustical Society of Japan, and others. He is a Fellow of the IEEE, the Acoustical Society of America, the ISCA, and the IEICE. He has served as President of the ISCA, the APSIPA, and the Acoustical Society of Japan, as well as editor-in-chief of various domestic and international academic journals.



Training Program in California  
2013.2/17 ~ 28



Fukushima Visit  
2013.7/23 ~ 24



Indonesia Training  
2014.3/11 ~ 22



Excursion in India  
2014.8/27 ~ 9/7



## Other Activities

### FD Training held on Dec. 2014 2014.12.26

AGL FD (Faculty Development) Training was held on Friday December 26, 2014, at West Building 9, Ookayama campus, Tokyo Institute of Technology. This event gathered AGL relevant parties, including members of AGL Committees and academic supervisors of the students, to review the AGL program and to discuss the future efforts. During the first session, Director Sato and masters of Dojo gave a presentation about the activities of AGL, while the second session divided members to subcommittees. These subcommittees discussed program topics about "Training of the ability to see the big picture that surpasses the divisions", "Career path construction with industry-government-academia cooperation", and "Training global vision and ability" and the future direction of AGL. This FD Training was a great success.



## From the administration office

In the 2014 fiscal year, AGL conducted various special programs, such as Overseas Excursions in Dojo education (3 countries, 4 programs) and "d.school comes to Tokyo Tech" in Yamada Dojo of Economics and Humanities. In addition, three AGL students organized a "Startup Weekend" event, collaborating with the Tokyo Tech CBEC program. Furthermore, several AGL students completing all the AGL programs are expected to begin their career in the real world soon.