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The way industry-andacademia collaboration is conducted

Yoshimitsu Aoki

Needless to say, the end goal of engineering studies is to create new industrial and social value by applying new technologies resulting from research activities for the benefit of people's lives. Universities and businesses continue to pursue a variety of research activities toward this ultimate goal.

The foremost point differentiating university labs from industrial enterprises is that university labs use "research" – an ideal undertaking – as a means of educating students. As such, academic novelty and originality in approaches are required of universities' research activities. I assume what businesses eventually expect of universities in industry-and-academia collaboration are development of innovative technologies and new research approaches based on their unrestricted way of thinking. Nevertheless, the speed

by which joint research projects can produce tangible results varies largely depending on the way collaboration is organized.

At my lab, we are developing a number of projects hand-in-hand with businesses as well as research organizations both inside and outside of our campus. Yet the way such collaboration is conducted varies widely. In typical cases of industry-and-academia collaboration, project progress is confirmed on a monthly basis. Recently we see an increasing number of cases, where we secure research spaces project by project, allowing students assigned to the specific project to get together daily and develop discussions with young researchers from the business concerned.

Such a situation may be difficult for students in a way, but it allows students to familiarize themselves with businesses' way of thinking and confirm each other's progress almost week by week. This setup can prevent the research policy from going off course, which leads to producing research results in a much shorter period of time. In some recent examples, the results of one to two years' collaboration have come very close to the stage of commercialization.

In the meantime, I notice a recent development in the attitude of businesses that come to us seeking advice on joint research. In the past, many businesses came to us seeking university-initiated technologies that could be commercialized in a relatively short period of time. But today, an increasing number of businesses seem to be more far-sighted; they want to establish a tie-up with us to identify and promote seeds of innovative technologies unique to our university no matter how long the projects may take.

Of course, the way industry-andacademia collaboration is conducted can vary widely according to specific stage of research. Knowing that, I spend each day in a positive way, trying to think out ways for win-win relationships in which each party will offer their strengths for mutual benefit.

Science and Technology Information

Keio's Faculty of Science and Technology celebrates its 75th anniversary in 2014

The Fujiwara Institute of Technology (predecessor of Keio's Faculty of Science and Technology) was founded by industrialist and Keio alumnus Ginjiro Fujiwara in 1939 and later became Keio's Faculty of Science and Technology. As the faculty approaches the 75th anniversary since its founding, we are planning to carry out a number of commemorative projects to celebrate this milestone in our history.

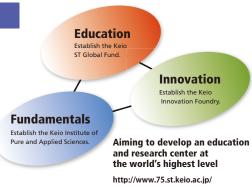
The commemorative projects are comprised of three pillars: enriching educational programs which aim to educate world-class talent, including the establishment of the ST Global Fund; establishing the Keio Innovation Foundry as a research facility where postdoctoral researchers are trained to lead industry through cooperative partnerships between academia and private industry; and establishing the Keio Institute of Pure and Applied Sciences, which aims to generate unique, world-leading research. Both the Keio Innovation Foundry and the Keio Institute of Pure and Applied Sciences will commence research at the beginning of the new academic year.

Our endeavors to reform educational programs for global-minded human resources are already well underway. For example, in the current academic year, we held a Global Leadership Seminar targeting undergraduate first-year students on Hiyoshi Campus. Additionally, this year we decided to introduce a new quarter system for the undergraduate specialized education course on Yagami Campus to increase opportunities for students to take on new challenges like overseas internships. Moreover, our partner institutions for the double degree program in the master's course continue to grow, with the addition of three new partners—RWTH Aachen University, Universidad Politécnica de Madrid (UPM), and TELECOM Bretagne—for a current total of 14 partners worldwide.

Editor's postscript

When we visited the Aoki lab for an interview, we found the students there playing a DVD of "School Wars." Curious about it, we asked one of them, who said, "Mr. Aoki loves 'School Wars' very much. He's really a passionate teacher." We felt that Mr. Aoki was loved and respected by his students. They say Mr. Aoki is willing to support his students, always encouraging them to study abroad to accumulate experience and expand their perspectives. As a sportsman with the experience of rugby and judo, his character seemed to be reflected in his lab's active atmosphere. But when it came to the interview, he spoke very gently.

This year falls on the 75th anniversary of Faculty of Science and Technology. We will further improve facilities and systems so that they merit the long history. We are looking forward to seeing the researchers and their lab students, who have been covered by this bulletin, leave new footprints in the future history of our faculty. (Yuko Nakano)



*** 窮理図解

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