

### **Shinnosuke OBI:**

Let us start the session one. First I would like to present about activities at Keio University, particularly in Faculty and Graduate School of Science and Technology. The main focus is the double degree framework, which is the main topic of the symposium. And in relation I give some example of entry programs for the students to motivate them to participate in more complex international programs. After showing you some examples of the graduates, I will give you a list of some issues to be discussed in today's symposium.

After that professor Bennis will present about Ecole Centrale de Nantes activity. I assume in relationship with – partnership with Keio University. After that Mr. Paul Crowther, the Secretary General of T.I.M.E Association will tell you what T.I.M.E is. The majority of the people in this room are quite familiar with that of course, but this is to promote T.I.M.E network outside T.I.M.E. So, therefore I have asked him to present about T.I.M.E network. At the end professor Okawa, from Keio University will present SOI Asia. SOI is School on Internet, so you can imagine what is there. And this is Interactive Remote Lecture series through internet.

Altogether, the session one in the morning will present activities at Keio Universities, and partner institutions. Double degree at Keio University started in 2005, I do not tell you all the details of the history of Keio University, but without this we cannot start. It is preceded by the launch of the Graduate Program, or IGP, for Advanced Science and Technology in 2003. This is the international program that we adopted for the first time in the Graduate School of Science and Technology, where we deliver the lectures in English. Therefore, it made us possible to welcome international students from every part of the world to Keio. Until then we had the student from China, Korea, and Taiwan, who are familiar with Japanese language.

The launch of IGP diversified very much the international body of faculty. In 2005, we signed the first double degree agreement with Ecole Centrale group. In the same year, we have already received the first student from Centrale de Nantes, and they finished successfully after two years, as the first double degree students of Keio University.

In the picture, the three student proudly showing the two diplomas. In 2006, we sent first group of Japanese students to France. There were six students, out of which five students completed the program successfully.

In this picture, the group of first double degree students are seen. Well, this happened in 2010.

The original program was proposed by the Ecole Centrale group. On the left, this is pass of the – original pass of the French students in Grande Ecole. On the right, this is regular pass of Keio students. The French student who entered the Grande Ecole spend first two years in preparative class before entering the three year curriculum at Ecole Centrale. In this double degree program, the student will replace the third year in Centrale, with two year study at Keio University's master course. They finish first two years before coming to Keio University master program. And upon completion they receive that from Keio Master of Engineering, or Master of Science, plus diploma from Ecole Centrale the Diplom Ingeneur Ecole Centrale. For French students this is two degrees with one year extension. For Keio students, we have four year undergraduate education. After first two years, they go to France, and merge into French system, where they study the generalist engineering curriculum in French language. After two years study, they come back to Keio, and enter the master program. And upon completion they also receive Keio master and diploma of the Ecole Centrale where they studied. They are not awarded bachelor degree which is otherwise the case. These Japanese students follow exactly the same path as French students once enter Ecole Centrale. Therefore it makes us easy to understand this system. At the beginning, we were worried about how to transfer French credits to Keio, to give them the graduation of bachelor degree. But after we decided not to do that, the whole system became quite simple.

To this program, we have sent, in total, in past 10 years, 67 students. We received totally 131 French students. And as of this year September we have delivered already 117 pairs of degrees to both French and Japanese students. The number of incoming students from France is quite high. This gray column, and light blue column showing Japanese students going to France, is a little bit fluctuating, but this year first time we sent 10. And of course, number of the people finish the program will increase year by year.

In 2007, we were admitted to T.I.M.E Association, which is a consortium of the engineering schools in Europe that work together to promote double degree on master level, originally. Of course, we are now thinking about PhD, and some other extension program. But the original idea is to work together to promote double degree on master level.

I've marked some institutions by red color with which we are currently operating double degree program. We select partner schools, so that we can fulfill the desire of our students. Because we are more comprehensive compared to some European universities, or some universities do not accept certain subject of our students, we need to carefully select to cover all the subject offered at our university. This program started first with Lund University in 2010. So, we sent first student in 2010, and we received first student in 2011.

This program is different from the one that we operate with Ecole Centrale. In the home institution in Europe the students enter master course which lasts two years, but instead of going to the second year they come to Keio. And enter the master program of the Keio University to stay for two years to receive Keio's master degree. And this degree will be approved as a degree of home university in Europe. This works quite well, because we started the IGP where the academic year starts in September.

The European students who finished first year in master can enter Keio University without losing the time. We have increased the number of partners in this program in the past. And this year, we receive totally 30 students from eight partners. So, this is how it works for incoming student at Keio. For outgoing, this is a little bit different mainly because of the difference in the calendar year.

For the students of Keio Graduate School it works also as three-year program. The students enter the graduate school in April, and go to Europe after half years, and enter in European Graduate School in September-October. After one and half-year they return to Keio, and merge into the second-year master program, which is for the specialization. After that they finish master from Keio, this will be also approved by the hosting institution in Europe. Therefore, in each side, students study for one and a half-year, so it means three-year program. And therefore, the student will receive two degrees with one-year extension.

As compared with the program with Ecoles Centrales, where relatively young students, just became 20-years-old and still not quite matured, are involved, the Graduate School Program adopts students who already graduated the university and more matured; they know want to study, and what they want for their specialized knowledge. Therefore this is a little better accepted by the students compared with the undergraduate program.

In September 2014, we issued the 100th double degree. And this is summing up the old

incoming students from all partners including both types. So, up to now 161 students came from 13 partners. From Japan to Europe the number increased as well at a constant rate except for the year 2014.

We do not know pretty much about reason for this drop this particular year, but we suspect that this is because of the announcement by the industry people that they change the system of hiring the students. And once, those kind of irregular things happen, the students tend to be more conservative. And they feel afraid of that they'll be losing the chance of interview by the industry if they go to abroad.

But in this year, one year later we have got quite few number of student who went to the study abroad. So, I hope this tendency will continue like this, not drop again.

To establish this we do something more with Ecole Centrale de Nantes in particular, we have traditional, linguistic and cultural program in French. It is operated since 2001, and this seems to be very popular among the Japanese students. They spend six weeks of February and March in Nantes, and this is not very large group of students, but they enjoy very much the life in France for six weeks. And stimulated by this we have started similar program with RWTH Aachen in Germany. This is composed by German language program, with introduction to Engineering program. This stimulate also very much the students to go longer study after participating this kind of program.

We see always certain number of the students who once participated this kind of short program will challenge, further, heavier, longer program during their study at the university. This is the new brochure of Aachen Spring Program. So, we expect to have a bit more attention by the students. When working with European partners it is particularly important to bring a bit more cultural aspect to the students. Among the student, like everywhere in the world, there is no doubt to go to America to study there, being in the part of American success story. But to Europe, we need to first tell them the importance of the culture, diversity, language, and so on.

Therefore, we never underestimate the importance of these kind of entry programs. But apart from that we also operate kind of short study abroad program. This is done during summer. Since 2013, we are working very intensively with the Study Abroad Foundation which is present here today. This is the organization that offers the students to exchange

study in USA, UK, and mainly in English speaking countries. This project – this course provides us science, technology, engineering, mathematics. Subject in English language, and this is – this happens during the summer season from June to September, for four to eight weeks.

Students go there, without spending one whole year, or one whole semester, to see how the study abroad looks like, or how they are competent in a classroom with others. We made it possible by introducing so called quarter system where we split the Spring Semester into two. Usually we have the Spring Semester starting in April that last until the end of the July. Hence, we can never send our student to this kind of program. But in some cases we have introduced the so called quarter, so that the student can choose to go abroad during the second half of the semester. We send regularly three to six students on junior level, or third year students. Not too many, but still this is a good start. And we hope, the student going to this kind of program will think about more intensive and more challenging program during their study.

We send student to different programs but purpose should be clearly stated. Students must know, the objective of the programs. The duration may vary according to the character of the program. And quality assurance is very important, we do not send the student just for the sightseeing or just simple cultural experience, but we need them to learn something.

We use this double degree program to further promote our activity on international level. Student should, of course, learn two different cultures, and master at graduate level in the English language. So, English is of course, indispensable in any field of the world. And possibly – some people have chance to jointly supervise the students when we introduce successfully this master double degree.

And we have also great opportunity of a grant application. Actually it happened during last few years, which is, couple of years after we participated in T.I.M.E Network. We had a great chance to work together with some of the partners, in Erasmus Mundus Programme and other stronger partnership to promote the student exchange in the PhD level, and research exchange in further, deeper specialization. So, operating the double degree program brings us also very good things as outcome.

We have invited today some former double degree students to see some individual cases

after finishing the program. Some people – majority go to industry. One particular example is Loui who studied at Keio, graduated 2010. He's now working in TUV, a German Company in Yokohama. He will tell his experience at the end of this, today. There are also some people who proceed to PhD program at Keio University or other universities in Europe. One of them is Mr. Homma. He's the first – one of the first student who went to Paris. After he came back to Keio, finished double degree in 2010, then after that he participated in an Erasmus Mundus Programme and spent half year in TUM. And he's now working in the research institute in Japan. Another student Ms. Ogawa finished double degree in 2012, and just finished PhD this year. And she is now a temporary research staff at Keio University.

And there are also some cases after double degrees proceed to the other specialization. Ms. Sasaki went to Ecole Centrale de Nantes, finished double degree in 2011, and immediately after that she went to France again to participate in the program given by the Renault Foundation, this is more specialized Master Program in French. And she's now working in NISSAN Motors. So, these four students, or our former students will give us a testimony how double degree influenced their career at the end of today's session.

So, this is all from me, and I would like to accept question after the end of the session one, after presentation of our colleagues. So, may I introduce Professor Bennis from Ecole Centrale de Nantes to give his presentation?