

The 12th Career Development Workshop for Young Students and Professionals

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1 Introduction

On November 15, 2014 (Sat), the 12th Career Development Workshop for Young Students and Professionals has held on the Setagaya campus of Tokyo City University. This workshop was planned by IEEE Tokyo Young Professionals Affinity Group and IEEE Japan Council WIE (Woman in Engineering) Affinity Group, and held under the auspices of Student Branches at the following universities:

- Keio University
- Chuo University
- Tokyo Institute of Technology
- Tokyo Denki University
- Tokyo City University
- Tokyo University of Agriculture and Technology
- Tokyo University of Science
- Meiji University
- Waseda University

2 Abstract of the Workshop

2.1 Object

This workshop was for the undergraduate students, graduate students both in master's and doctor's course, and young working people who expected to play a big role in society. The object is to have participants change their self-consciousness to their skills and think about their future plan through group discussions.

2.2 Content

We invited six researchers or engineers from industrial fields as facilitators of the discussion. In six

Table 1: Facilitators and discussions' themes

	Facilitators and their companies (titles omitted) Discussions' themes
A	Masayoshi Ogino (Leadia Co.,Ltd.) "Differences between Japanese Companies, Non-Japanese Companies and Venture Companies"
B	Hiroyuki Watanabe (Microsoft Japan Co., Ltd.) "The Need and Importance of ICT Skill"
C	Takamasa Kuge (a web engineer) "A Career Plan as an Engineer"
D	Takuto Yoshida (Ricoh Company, Ltd.) "What is the Reason for Action of a Day?"
E	Nozomu Nishihara (Schlumberger.Ltd) "What is a Interesting Job?"
F	Kiyoshi Onohara (Mitsubishi Electric Corporation) "Characters of Researchers and Engineers Who are Needed by Companies"

groups (A-F), with each facilitator playing leading roles, we discussed specific themes shown in Table1.

In order to allow participants to discuss under more than one facilitator, we had two sessions of discussion, and participants were allowed to move to another group than the first half while the break time if they like.

Supporting student staffs also joined each group to encourage discussions and register them. At the end of the program, each group presented the contents of the discussions and conclusions.

2.3 Program

The program of this workshop is as follows:

Chairperson:	Keisuke Shiba (IEEE Tokyo Denki University Branch)
Host:	Emi Yano (IEEE Japan Council WIE)
12:30-13:00	Reception
13:00-13:05	Opening Greeting by Masatomo Sato (IEEE Tokyo Young Professionals)
13:05-13:40	Introduction of the facilitators
13:40-14:30	Discussion (1)
14:30-14:50	Break / Group change time
14:50-15:40	Discussion (2)
15:40-15:55	Summarize the discussion
15:55-16:05	Break
16:05-16:55	Presentation
16:55-17:00	Closing Greeting by Kohei Ohno (IEEE Tokyo Young Professionals)
17:30-19:30	Sociable

3 Workshop

The number of participants in the workshop was 38 including staffs:

- Students 25 (18 IEEE members)
- Others 7 (7 IEEE members)
- Facilitators 6

Followings are discussion minutes from each group, with photos during the workshop shown in photo 1 and 2 below.

■ Group A

Group A discussed “The Differences between Japanese Companies, Non-Japanese Companies and Venture Companies.” The purpose of the discussion is to understand the characteristics specific to these three types of companies and make good use of this knowledge to our job hunting.

During the discussion, the advantages of working for Japanese companies included the lifetime employment system, the culture of human resources development, and a sense of mission that we represent Japan, and the disadvantages included “ties” of promotional track, the seniority system, and lack of flexibility. On the other hand, the advantages of working for Non-Japanese companies included high pay, equality of workers, flexibility, and the disadvantages included risk of firing, existence of parent companies abroad, and lack of horizontal connections. And, the advantages of working for venture

companies included that we can have dream, that we can hone our skills, and maximum flexibility, and the disadvantages included difficulty of financing, less trust to new clients, and lack of stability.

Taking the above into consideration, we discussed what kind of people are suited to each type of companies. Consequently, we concluded that people who respect bonds with other workers are suited to Japanese companies, that people who have confidence of their skills to non-Japanese companies, and that people who can sympathize with a company’s president and can strive for their dreams to venture companies.

—Group A staff: Hiroaki Okamoto (Tokyo Institute of Technology)

■ Group B

In group B, we discussed on a theme of “The Need and Importance of ICT Skill” with a facilitator, Mr. Watanabe.

First of all, we checked the time and the reason that we had used PCs and learned programming for the first time. Most of participants began to use PCs for the Internet when they were primary school children, and began to learn programming in the lecture of the university. Mr. Watanabe said that the learning of such ICT skills in Japan haven’t change for 20 years. In the foreign country, it is common that PCs are bought at the time of entrance to elementary school. There are also exist countries that assume programming to be compulsory education. As compared with foreign countries which introduce ICT at an early stage of the education, the ICT introduction in Japanese education is delayed.

In recent years, software is demanded by almost all industries because the source of the competition between companies is software. For example, software is used for the control of cars, management of weather or water in agriculture.

However, it is said that the Japanese companies order the development of softwares to foreign countries. It is the reason that development skills of foreign engineers are higher than those of domestic engineers.

Regardless of such social situation, in Japan, recognition of the need of ICT skills is not considered important, and people tend to have bad impression to engineers by the reason of hard work.

We considered the shortage of engineers and their low social status as critical problems, and discussed the solution.

First, vocational education is performed for improving impression of engineers. ICT technology is introduced in the place of the education positively from the childhood. Dividing into liberal and science course in a high school is stopped, the way to an engineer is shown for more people. Focusing on such educational reforms, we declared that wide recognition of the need of engineers and education for them should be performed.

—Group B stuff: Kozue Kawasaki (Tokyo City University)

■ Group C

Group C discussed a theme “A Career Plan as an Engineer.” We consist of six members including Mr. Kuge, a facilitator of our group.

First, in order to consider a career plan, we discussed about why our present course was chosen. In many opinions raised from members, such as “In order to do the thing which I would like to do” and “In order to utilize what I learned at the university” and “Income and stability.” Based on the mentioned opinions, we discussed whether there is any kind of career plans as an engineer. And five career plans were set up.

Next, we discussed whether there are any kind of advantages and disadvantages in the career plan that had been set. Many opinions raised from the members, e.g., “income”, “stability”, “freedom and flexibility in the companies”, and we compared each plan.

Finally, we discussed what kind of career we ourselves would like to follow. And as a summary of this theme, we discussed what kind of things we have to learn in the future.

The discussion was a good opportunity to think our career plan deeply.

—Group C stuff: Tatsuya Machida (Meiji University)

■ Group D

Group D discussed “What is the Reason for Action of a day.”

First, each of our members decided a keyword about a reason for action of a day. For example

“hobbies”, “desires”, and “human relationship.” Next, we decided two axes, “passive and active” and “short and long term” for the use of position-mapping. Then, we decided five standards of our actions in long-term view. After that, we made a sentence from the five ideas, and decided specific goal.

Also, we discussed what we have to do for our goal within a week. Through the discussion, we were able to think about the schedule and the clear reason for action.

Finally, we concluded that we decide our action just based on our own values.

—Group D stuff: Yuki Imagawa (Tokyo Denki University)

■ Group E

Group E discussed “What is a Interesting Job?” with 6 members including a facilitator Mr. Nishihara from Schlumberger.Ltd.

First, we brainstormed on “the moments when we felt interested” that each of the members had experienced. Then we combined the opinions, and concretize what is a ideal job. The opinions from the participants were various, including “the workplace where we can feel our growth”, “achievements and fruits that we can get there”, “human relationship with superiors and subordinates”, and “jobs and income.” From these opinions, we recognized that a variety of experience in the work leads to our satisfaction.

Next, we classified the experiences of each participants. By recombining the opinions from macro view, we clarified that the satisfactions of work are divided into following six groups:

- (1) Self-evaluation: Satisfaction by self improvement, achievement, and social contribution (1)
- (2) Inter-evaluation: Satisfaction by being highly evaluated by others or companies
- (3) Curiosity: Satisfaction when we get new knowledge or experience (1)
- (4) Human environment: Satisfaction by the atmosphere of workplaces (1)
- (5) Reward: Satisfaction that are related to actual profit such as income, promotion, and holiday (2)

- (6) Fulfilment: Satisfaction by the break after the work (1)

Each member selected one from the six types of satisfactions above. The values in the parentheses denotes the number of the members who selected it.

After that, we tried to apply the divided satisfactions to Maslow’s five-stage hierarchy of needs. This hierarchy of needs was the classification of human’s basic needs that is proposed by Abraham Harold Maslow, American psychologist. In the classification, five needs construct pyramidal structure that consists of , (1)Physiological, (2)Safety, (3)Love/belonging, (4)Esteem, and (5)Self-actualization, in the order of their level. We apply these needs to the divided satisfactions, and check what kind of needs the members desire. As the result, students desire high-level needs such as self-actualization and Esteem, while working people desire low-level needs such as social safe and physiological needs.

Finally, we discuss these two polarized needs, and clarified following points:

- (1) Satisfactions in work are greatly divided into two needs.
- (2) Each needs are further divided into six groups.
- (3) Students desire high-level needs since they have already fulfilled low-level needs.
- (4) Working people desire low-level needs since they have already fulfilled high-level needs.
- (5) All needs and satisfactions need to be fulfilled in a well-balanced manner.

Through the discussion, we were able to combine satisfactions in work into six groups. The workplaces where we can sufficiently fulfill each six satisfactions are ideal. This conclusion will be beneficial indicator to find out optimal workplaces for students who will choose their jobs in the future.

—Group E stuff: Osamu Toda (Keio University)

■ Group F

Members of group F and it’s facilitator, Mr. Onohara, discussed “Characters of Researchers and Engineers Who are Needed by Companies.” The purpose of the discussion is to get students to think

about their careers by letting them discuss skills needed by researchers and engineers.

First, skills required by both of them are discussed. After that, ones required by each of them are discussed. Many skills such as language skills and communication skills are required for both sides. However, a clear difference between researchers and engineers is in the the time axis they are focusing on. Researchers research for the future such as 10 years later. On the other hand, engineers improve products in front of the eyes.

—Group F stuff: Hirotoomo Yasui (Tokyo University of Science)



Photo 1: Workshop scene 1



Photo 2: Workshop scene 2

4 Questionnaire

After the workshop, we asked participants to answer questionnaires.

4.1 Respondents

Thirty-two participants answered the questionnaires, whose detail is shown in Figure 1.

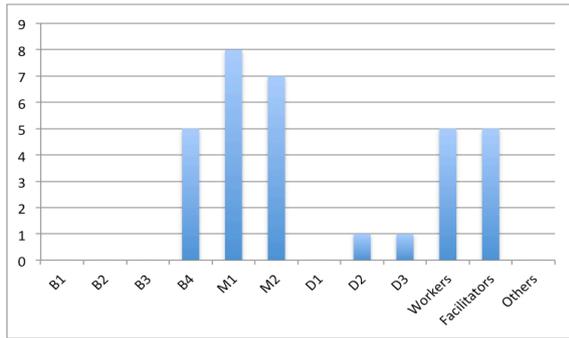


Figure 1: The detail of the respondents

4.2 About the workshop

We asked participants to evaluate this workshop’s contents, usefulness, and the length of the workshop on a scale of one to five, and also asked them to write down its reasons. The five scales for each question are as follows:

- (1) Contents: very good, good, average, bad, very bad
- (2) Usefulness: very useful, useful, average, useless, very useless
- (3) Length: very short, short, appropriate, long, very long

The answers for each questions are shown in Figure 2 (a)-(c).

We were able to get rather favorable reviews as for both (1) Contents and (2) Usefulness from a number of participants. The examples of the reasons for the answers were as follows:

- It was good guide that I was able to learn more about non-Japanese companies and venture companies by talking with those who actually works there.
- This project was very beneficial for me since I usually have little opportunity to talk with students in other universities or working people.
- I was able to learn some points of view that I didn’t have before through talking with the working people and the university students whose ages are different from mine.

As for (3) Length, many respondents answered 3. appropriate;

- It was good that I was able to output my “pole” of view. And, the way of the event-proceeding and the time distribution were well arranged.

On the other hand, following opinions were also existed:

- There were only two students other than the supporting stuff, so I prefer that more students participate.
- I hope that the number of participants increase and that the event become lively. It depends on efforts of the student branch members, so I hope this event will stand still or decline but grow.

Considering above, we would like make efforts on publicity activities in order to increase the number of participants, with we student branch members taking the lead.

4.3 Next workshop

We also asked the participants what kind of events they would like to attend in the future and which academic fields they are interested in with multi-choices on the questionnaire. The choices are as follows:

(1) Events

- Lecture meeting
- Lecture about skills
- Competition / Contest
- Informal party with students
- Company tour
- Other events (free writing)

(2) Academic fields

Electronic Engineering / Electrical Engineering / IT / System Engineering / Communications / Material /Physical properties / Physics / Chemistry /Mathematics / Education / Medical / Management /Economics / Politics / Social

Science / Philosophy / Psychology / Arts
 / Others (free writing)

The total results for each question are shown in Figure 3 and 4.

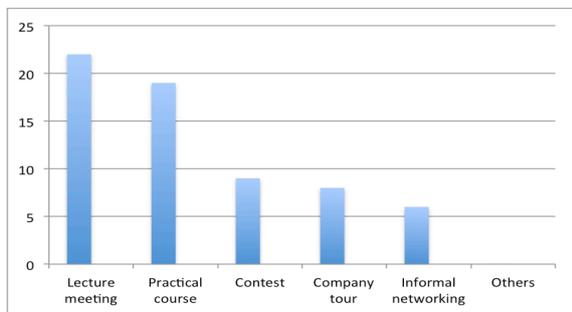


Figure 3: Events

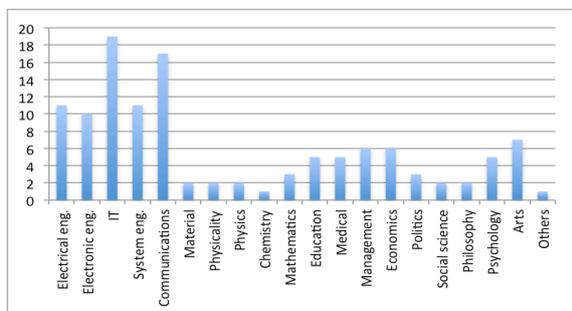
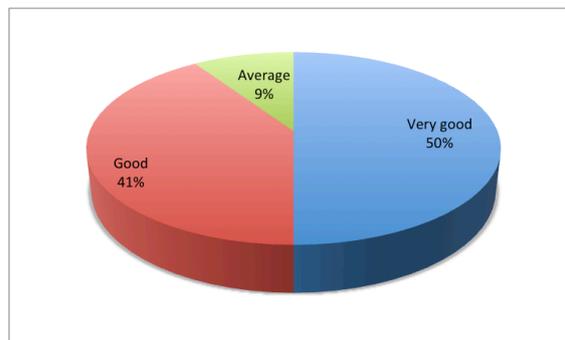


Figure 4: Academic Fields

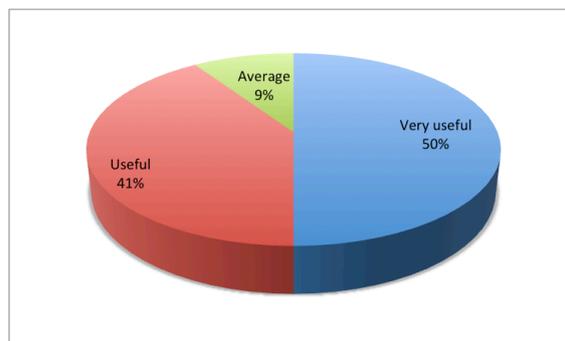
About (1) Events, many of respondents wanted lecture meetings or lectures about skills.

About (2) Academic fields, ones which have close relation with IEEE such as Electronic Engineering, Electrical Engineering, IT, System Engineering, and Communications were highly rated, but IT fields and Communication fields are particularly highly rated.

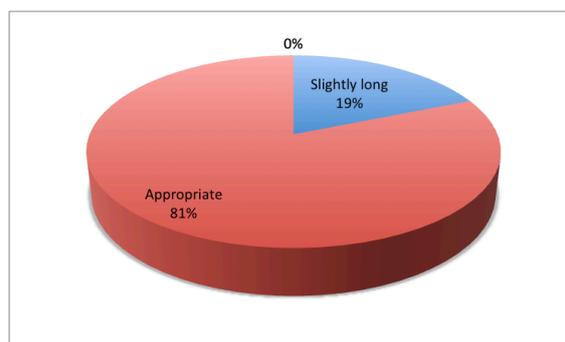
We would like to plan future events based on these useful opinions.



(a) Contents



(b) Usefulness



(c) The length of the workshop

Figure 2: About the workshop

5 Summary

This 12th workshop had discussions with six groups and received favorable reviews by participants. We would like to offer more workshops and opportunities for interrelations, with higher quality, and would like many students and young researchers to use those events as chances to think about their future careers.

The next 13th workshop is scheduled in June 2015.

Acknowledgements

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