The 11th Career Development Workshop for Young Students and Professionals

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1 Introduction

On November 28, 2014 (Sat), the 11th 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

2.1 Object

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

2.2 Content

We invited seven facilitators to lead discussions from research institutions and academic institutions. In seven groups (A-G), with each facilitator

Table 1: Facilitators and discussions' themes

	Facilitators and their companies (titles omitted)	
	Discussions' themes	
A	Kazuko Ishikawa (PicoTherm Corporation)	
	"Is it impious toward your parents if you work in	
	venture companies?"	
В	Masaya Sasaki (Honda Motor Co.,Ltd.)	
	"What is valuable services to our customers?"	
С	Yuki Takahashi (Robit Co.,Ltd.)	
	"Venture is stable!?"	
D	Yasujiro Nishimiya (Schlumberger.Ltd)	
	"How to be satisfied with our lives?"	
Е	Mr./Ms. H (A chemical research institute)	
	"What do we need to motivate ourselves for working	
	harder?"	
F	Yusuke Fukazawa (NTT DOCOMO, INC.)	
	"Ways of working and careers of corporate re-	
	searchers"	
G	Yamashina Katsuhiro (NEC Corporation)	
	"What skills do we need to become good engineers	
	after 10 years"	

playing leading roles, we discussed specific themes shown in table 1.

This time, 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 the discussion and register it. At the end of the program, each group presented the contents of the discussion and conclusion.

2.3 Program

The program of this workshop is as follows:

Chairperson:	Keisuke Shiba (IEEE Tokyo Denki
	University Branch Chair)
Host:	Kohei Ohno (IEEE Tokyo Young Pro-
	fessionals Chair)
12:30-13:00	Reception
13:00-13:05	Opening Greeting, Masatomo
	Sato (IEEE Tokyo Young Professionals
	Secretary)
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)
15:40-16:00	Summarize the discussion
16:00-16:05	Break
16:05-16:55	Presentation
16:55-17:00	Closing Greeting, Yasuharu Oh-
	goe (IEEE Japan Council Student Ac-
	tivity Committee Secretary)
17:30-19:30	Sociable

3 Workshop

The number of participants in the workshop was 57 including staffs:

- Students 51 (29 IEEE members)
- Others 10 (9 IEEE members)
- facilitators 7

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

■ Group A

In group A, we discussed "Is it impious toward your parents if you work in venture companies?" with a facilitator, Ms. Ishikawa.

First, we predicted probable impressions of members' parents toward venture companies, and listed possible reasons why they don't want their children to work in venture companies. As we listed the reasons, we gradually found out that factors of them can be classified into following five, stability, promise, appearances, independency of their children, and preconceptions. And we listed more specifically as follows: Anxiety about welfare program and salary in terms of stability, the possibility of bankrupt and consequently waste of the investment to their children in terms of promise, poor

name recognition in terms of appearances, and anxiety about hard work in terms of preconceptions.

However, we found that some of the reasons of the parents' unwillingness can be also applied to major companies. Therefore, we took a view that the main factor of their unwillingness is the strong preconception to venture companies. Moreover, we guess that the possibility that parents don't understand advantages of venture companies, so we discussed advantages that get rid of parents' preconceptions.

As advantages of venture companies, independency, in which we can flexibly act having our own thought, and worthwhile jobs which are close to what we want to do are come out. And we came to the conclusion that we can throw away the parents' preconceptions by insisting that we will get good salary by making a success in venture companies.

—Group A stuff: Kozue Kawashaki (Tokyo City University)

■ Group B

Group B discussed "what is valuable services to our customers?". We had eight members in the first half, and seven members in the second half, both including Mr. Sasaki, the facilitator of our group. The purpose of the discussion was to understand the sense of "customer" and "value" by experiencing a process of IT service development. To clarify the discussion, we limited the services to only IT services, and supposed the target users to be students in the science fields. Consequently, we decided to plan a service named "Research Activities Helper."

First, we brainstormed on services which we thought are useful or we want in the future. After that we divided the ideas into groups, and decided the functions of those services. As a result, services such as a foreign language document translation service and a notepad which we can write formulas are proposed.

Next, we discussed possible problems in the implementation process. Among many problems raised by our members, we highlighted the financial difficulties, and divided them into expenditure and revenue. Labor costs and development costs were raised as expenditure, and user subscription fees and advertising fees were raised as revenue. During the discussion, there was an opinion that it is

easy to obtain advertising revenue if we can get the usage history of users. So, we added a "user logging function" in the service.

Through the discussion, we realized that in order to add "value" to the services, it is vital for us to understand who "customers" are.

—Group B stuff: Yosuke Saito (Meiji University)

■ Group C

Our group talked on the theme of "Venture is stable!?".

First, our facilitator asked the members what kind of company they want to work for. Then, everyone answered that they want to work for large companies, and it's because large companies are stable. So, we started to discuss on what is "stability," and then we could divide it into six factors, which are pay, job-relations, family-relations, welfare program, what workers want to do, and stimulation.

After that, regarding the six factors above, we compared large companies, small and medium-sized companies, and venture companies. We scored out of four for each of them, and made a graph from the scores. The result showed that large companies are excellent in terms of pay and welfare program, small and medium-sized companies are excellent in terms of family-relation, and venture companies are excellent in terms of human-relations and what workers want to do.

We found out from the discussion that "stability depends upon ourselves," and we came to the conclusion that "any company can be stable." Making an addition, there was an opinion saying that government employees are most stable except in terms of stimulation.

—Group C stuff: Azumi Kano (Chuo University)

■ Group D

In group D, we discussed "How to be satisfied with our lives?". To seek this answer, we analyzed when and by what we have been satisfied with in our childhood and also at the present time. The number of the participants was about eight including a facilitator, Mr. Nishimiya, who comes from "Schlumberger."

Since our discussion theme was quite abstract, we brainstormed and made a list of factors which make us happy and joyful. While doing this, we categorized these factors into three periods of time, such as the past 10 years (when we were elementary or junior high school students), the present (when we are university students), and the next 10 years (when we join some companies and have families). This is because our bases of fulfillment may change as we grow physically and innerly. There were almost 40 opinions for each period.

Then, we analyzed these fulfillment factors and found that they get larger as we grow up. This means that it's not easy for us to keep being happy and joyful, while getting mature. In our childhood, we were easily made happy and joyful just by some small events or by achieving our goals, such as "we had favorite dishes at dinner," or "we had a great success in the school club activity." However now, we cannot get fulfillment just by doing so because we have large stress in our lives. Now, to refresh our mind, we tend to enjoy our hobby or travel somewhere spontaneously. And, we have longings about our future careers in the next 10 years, such as "we will be rich," and "we will be leading authorities in our research fields."

Thus, our fulfillment can change as we grow physically and mentally. In our childhood, we could easily become happy and joyful when our efforts paid off. On the other hand, at the present time, we tend to avoid daily stress and we need refreshing. At the same time, we also feel that we want to have a success in our careers. From this point, we concluded that we should have realistic longings or goals and then we should keep our efforts to achieve them. This will make us satisfied with our lives.

—Group D stuff: Kenji Kanai (Waseda University)

■ Group E

Group E discussed "What do we need to motivate ourselves for working harder?". There were eight members including a facilitator in our group.

First, we talked about "why do we motivate ourselves for hobbies and favorite things?". We noticed that "Setting a goal is important to get satisfaction and to solve problems."

Then, we discussed "Why did we lose our motivation to do something?" and "How do we keep our incentive to work?". Our discussion was exciting with brisk idea exchange, so we could not collect a lot of beliefs and ideas. After that, we suggested that we have to defeat things and people that bereave our motivations. Consequently, we obtained three important points to defeat them as follows:

- To resolve conflicts, we should discuss and communicate with people in a daily basis.
- To prepare for lack of skill and ability, we always have to prepare for the worst .
- To keep being motivated, we should take a break as neccesary.

Finally, we concluded that we should set definite targets to keep motivating ourselves, considering the three points mentioned above.

> —Group E stuff: Natsuki Yamanobe (Tokyo Denki University)

■ Group F

Group F discussed ways of working and careers of corporate researchers with our facilitator Mr. Fukazawa, from NTT DOCOMO, INC.

At first, we brainstormed on what careers we want to develop in the future. Many kinds of careers such as management, consultants, entrepreneurs, sales, and education were listed. These careers are related to each other, not being independent. For example, we can start a business by using experience which we get from the past careers such as management and consulting, or we can also expand our jobs as consultants by bringing the knowhows we learn while we are sales representatives.

However, no matter what careers we will develop, we need to fundamentally have knowledge and experience as engineers in scientific fields. Therefore, we concluded that doing our best in studying in our fields will expand our careers in the futures.

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

■ Group G

Group G discussed "what skills do we need to become good engineers after 10 years" with nine members and Mr. Yamashina from NEC Corporation as a facilitator.

First, we listed skills of the ideal engineers we assume, and then we summarized them.

From the discussion, we classify the skills into three categories as follows:

(1) Technical analysis skill:

The ability to analyze technologies and apply them to new products; good engineers are expected to make innovations by flexibly using technologies from various areas.

(2) Information gathering skill:

The ability to dig potential needs of people and society; a potential need can be a chance to innovate a good product.

(3) Management skill:

The ability to proceed with a project appropriately, such as managing the cost of the product and making members in the group to cooperate each other; product development projects are implemented by teams of engineers.

We concluded that by combining the skills above, we can develop creative products and grow up into competent engineers. Through the discussion, we could clarify the skills we should care about as engineers from the medium- to long-term perspective.

—Group G stuff: Osamu Toda (Keio University)



Photo 1: Discussion scene 1

4 Questionnaire

After the workshop, we asked participants to answer questionnaires.



Photo 2: Discussion scene 2

4.1 Respondents

 $56~{\rm participants}$ answered the question naires, whose detail is shown in Figure 1.

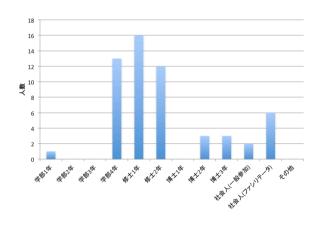


Figure 1: The detail of the respondents

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 to write down its reasons. The five scales for each question are as follows:

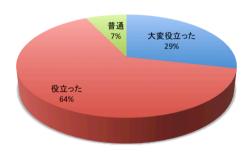
- (1) Contents: very good, good, average, bad, very
- (2) Usefulness: very useful, useful, average, useless, very useless

(3) Length: very short, short, appropriate, long, very long

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



(a) Contents



(b) Usefulness



(c) The length of the workshop

Figure 2: About the workshop

We could get rather favorable reviews as for both (1) contents and (2) usefulness from a number of participants. The specific reasons for the answer were as follows:

- I got opinions from various kinds of perspective. I had an experience of brainstorming on proposing problems and solutions on a specific theme
- I got various opinions on what is important when we work.
- I was able to have a beneficial discussion, breaking down problems from the raised theme.
- I was able to have what we cannot experience just in the university, such as learning the process of new service development and having the group discussions.
- I interacted with those I had never met, and heard opinions from many people. And the discussion was unusual and good experience for me.

As for (3) length, more than half of respondents answered 3. appropriate;

- The schedule was very good because we could summarize our opinions within appropriate time.
- We finished making our output at the last moment of the time limit, so I think the time length was reasonable.

On the other hand, following opinions also existed:

- I regret that we couldn't pace the discussion well, and therefore couldn't reach a good conclusion.
- It was good that I found out lot of people's opinions, but the time was rather short for summarizing what we discussed.
- The theme was so deep that time was up while discussing it.

From this time, We provide two sessions for the discussions, and let the participants change the groups in which they join. As for this system, there were pros and cons as follows:

- I suggest this system be kept on because we can put a pause on discussions by dividing them.
- I appreciate that I could visit two groups, but I didn't want to move to another in the middle of the discussion, so I wanted to move just after making one discussion done if I could move.
- The time length was suited to one discussion, but it was too short for two discussions.
- I joined another group in the second half, but it was regretful that I left the table even though the discussion was still proceeding halfway.

Next time, We would like to set discussions, considering these points above.

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 were interested in with multichoices 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.

About (1) Events, many of respondents wanted lecture meetings, lectures of skills, and company

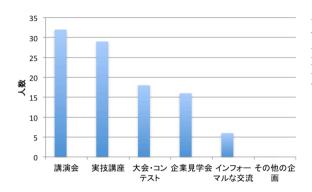


Figure 3: Events

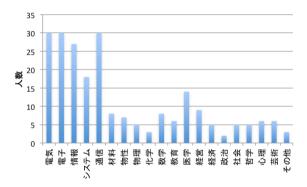


Figure 4: Academic Fields

tours.

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

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

5 Summary

This 11th workshop had discussions with seven 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 12th workshop is scheduled in November 2014.

Acknowledgements

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