



東京工業大学  
Tokyo Institute of Technology

## ASPIRE Forum 2021

*“Better Living for All in a New Normal”*

# Online Student Workshop

June 24–30, 2021

## Tokyo Tech Students’ Completion Reports



# Program

June 24, Thu	June 25, Fri	June 28, Mon	June 29, Tue	June 30, Wed
Day 1	Day 2	Day 3	Day 4	Day 5
	Lecture 1 10:00-11:00 (1h) Prof. Sakaguchi	Group Work 2 10:00-11:00 (1h)	Group Work 3 10:00-11:00(1h)	Group Work 7 10:00-11:00 (1h)
	Break (15 min)	Break (15 min)	Break (15 min)	Break (15 min)
	Lecture 2 11:15-12:15 (1h) Prof. Nishida	Feedback Meeting 1 11:15-12:15 (1h)	Group Work 4 11:15-12:15(1h)	Group Work 8 11:15-12:15 (1h)
	Lunch Break 12:15-13:10 (55min)	Lunch Break 12:15-14:00(1h45min)	Lunch Break (1h15min)	Lunch Break (1h15min)
	Lecture 3 13:10-14:10(1h) Prof. Aizawa		Group Work 5 13:30-14:30 (1h)	ASPIRE Students' Presentations to VPs & Senior Staff 13:30-15:55(2h15min)
	Break 14:10-14:45(35 min)		Break (15 min)	
Pre-Orientation Ice Breaking Activity 14:30-15:30 (1h)	Group Work Tutorial 14:45-15:45 (1h)	ASPIRE Symposium 14:00-17:00 (3h)	Group Work 6 14:45-15:45 (1h)	Evaluation of Presentations 15:55-16:20 (25 min)
Opening Ceremony Orientation 15:30-16:30 (1h)	Break (15 min)		Break (15 min)	Presentation of Awards Closing Ceremony 16:20-16:45 (25min)
	Group Work 1 16:00-17:00 (1h)		Feedback Meeting 2 16:00-17:00 (1h)	

# Tokyo Tech Participants

No	Student Name	Gender	School	Major	Academic Program	Year of Study
1	YIN Tuo	F	School of Engineering	Information and Communications Engineering	Master	2
2	PINITJITSAMU Pat	F	School of Environment and Society	Transdisciplinary Science and Engineering	Master	1
3	ZHANG Bo	M	School of Environment and Society	Nuclear engineering	Master	2
4	MING Xianwen	F	School of Engineering	Systems and control engineering	Master	1
5	PENG Shicheng	M	School of Materials and Chemical Technology	Materials Science and Engineering	Master	1

# ASPIRE Forum 2021 Online Student Workshop Completion Report

Report Date                      2021      7      11

Your Name	Yin Tuo		
Affiliation at Tokyo Tech	School of <u>Engineering</u> Dept. of <u>Information and Communications Engineering</u>		
Student ID#	19M18978	Current academic program year	M2
Program theme	Better Living for All in a New Normal		
Program period	2021 6 24 to 2021 6 30		
Posting to the web	This report may be posted on Tokyo Tech website. Would you prefer to have your name included or excluded from the report if it is uploaded?    Include Yes, please include. /    Exclude		

# Report of Aspire Forum Student Workshop 2021

## The reason you joined the program

I think joining this program is a good opportunity to improve myself. Before applying this program, I knew that I would listen to lectures by knowledgeable professors, do some teamwork with students from top universities, and talk about our proposal in the final presentation. I can have discussions with students from different majors, expand my international perspective, understand multiculturalism, and contribute to the group by sharing my knowledge and understanding of the theme. It was my honor to join this workshop representing Tokyo Tech.

## Pre-program preparations

Before the forum took place, I received the guidelines in PDF format from the program organizer, as shown in Figure 1. I got to know that the workshop would take place in the hybrid Zoom-Slack-Miro working environment. It was considerable of the organizer to provide introductions and weblinks of the above platforms, so that I could practice and got familiar with the platforms in advance. In addition, I knew about the schedule of five days, where each session was clearly marked and easy to understand. Moreover, I knew the members of my team, the theme of our proposal, and the zoom link for each session. In terms of contact from program organizer, I was invited to ASPIRE workplace in Slack, where several channels were organized for different purposes.

## Guidelines for ASPIRE Student Workshop 2021 Participants

Welcome to ASPIRE Student Workshop 2021 organized by Tokyo Tech! ASPIRE Student Workshop will be held in a fully online format this year. This guide is to provide you with key information for your consideration in advance of the workshop.

Figure 1: Guidelines before the forum

## Program contents, activities

Zoom, Slack, and Miro were used during the forum. Zoom links were different for each session. It becomes a little confusing, but the organizer sent the link in slack channels before it started. It helped a lot. Most of the participants didn't use Miro before so it took some time for us to get started. After we get familiar with the operations in Miro, writing down our ideas becomes more interesting.

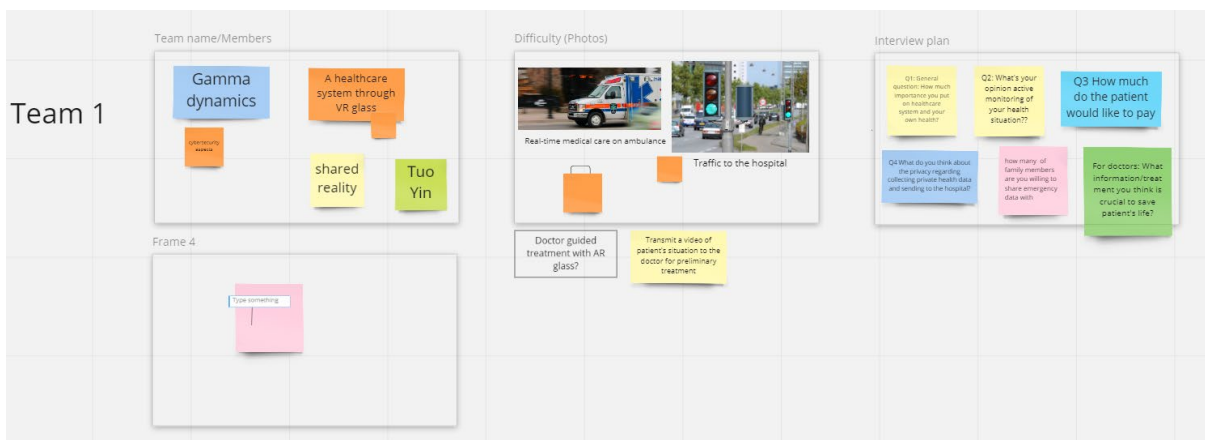


Figure 2: Miro board of our team. We wrote down our initial idea and got the interview plan.

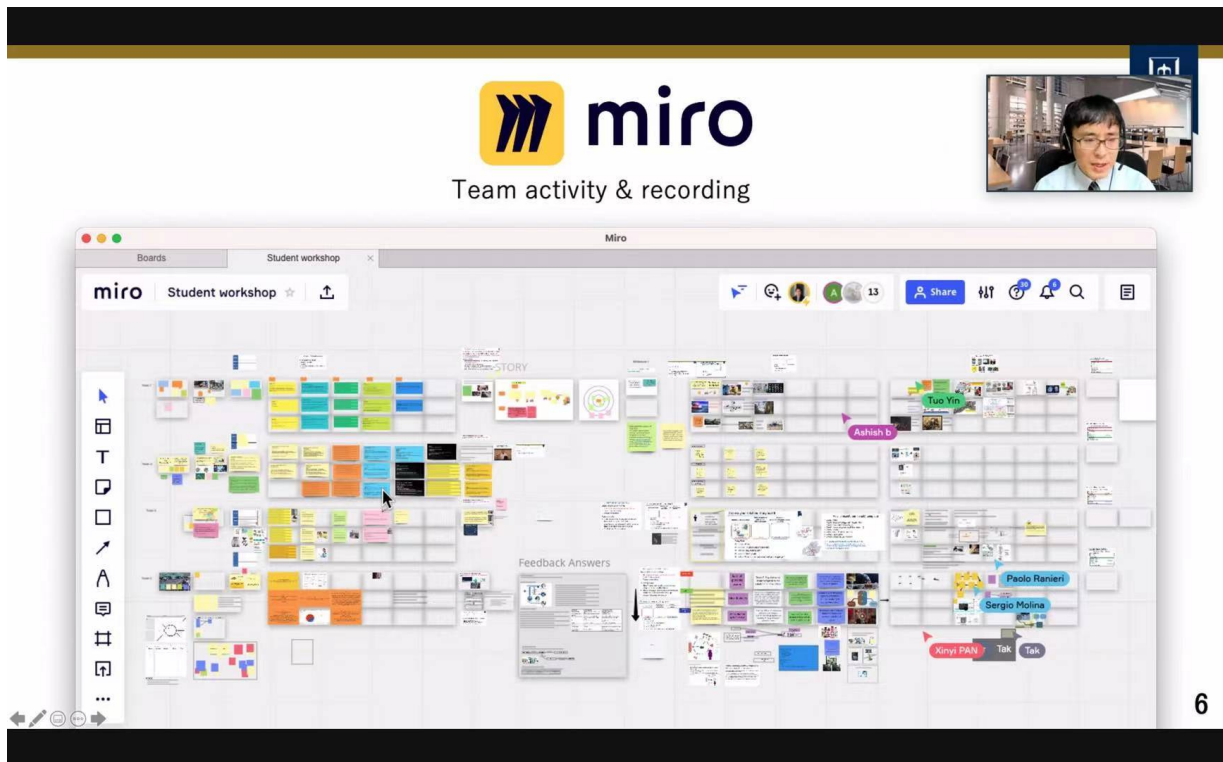


Figure 3: Miro board after the forum

In terms of our schedule, we had some ice breaking activities in the first day. The second day is almost a lecture day. Three outstanding professors specialized in the three themes from Tokyo Tech gave presentations. For me, Sakaguchi sensei’s talk “5G and beyond to realize supersmart society” was impressive. I asked a question regarding computer vision techniques applied in automated driving after his presentation and he kindly replied to me.

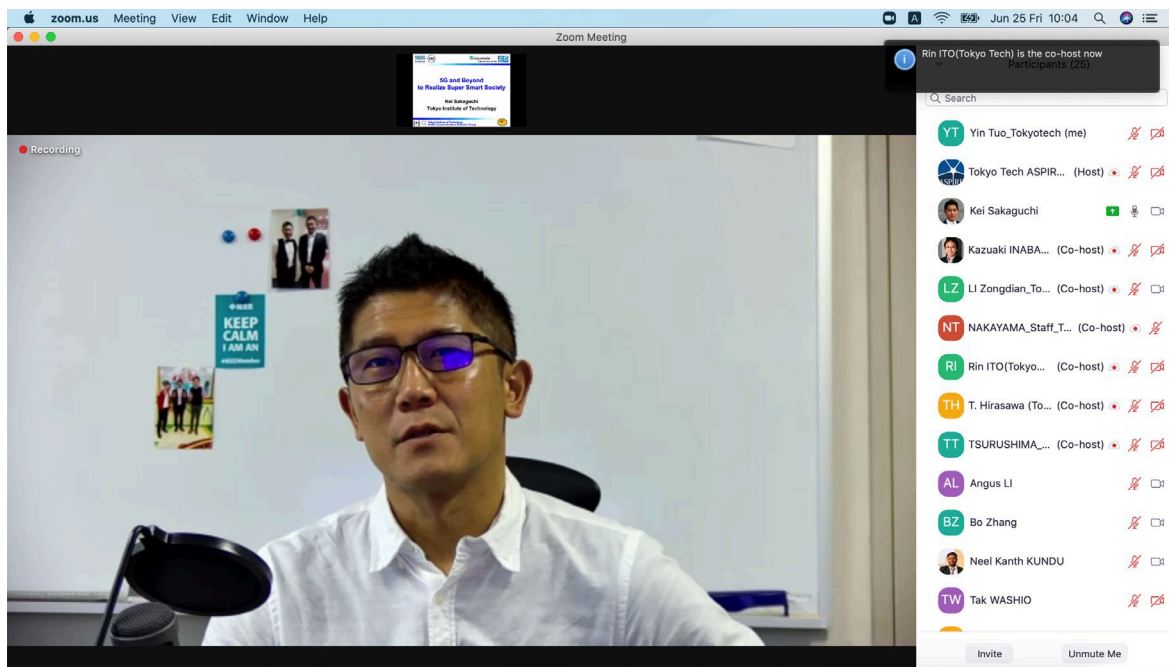


Figure 4: Sakaguchi sensei was talking about 5G technology.

We spent the third, fourth, and fifth days mostly on group work. I had the most enjoyable time when talking with my teammates Ashish majoring in Electrical and Electronic Engineering from Nanyang

Technological University, Angus majoring in Chemistry from Hong Kong University of Science and Technology, and Riccardo majoring in Product Service System Design from Politecnico di Milano. Before the final presentation, the organizer set us two milestones, which supported each team to find a feasible and technical proposal.

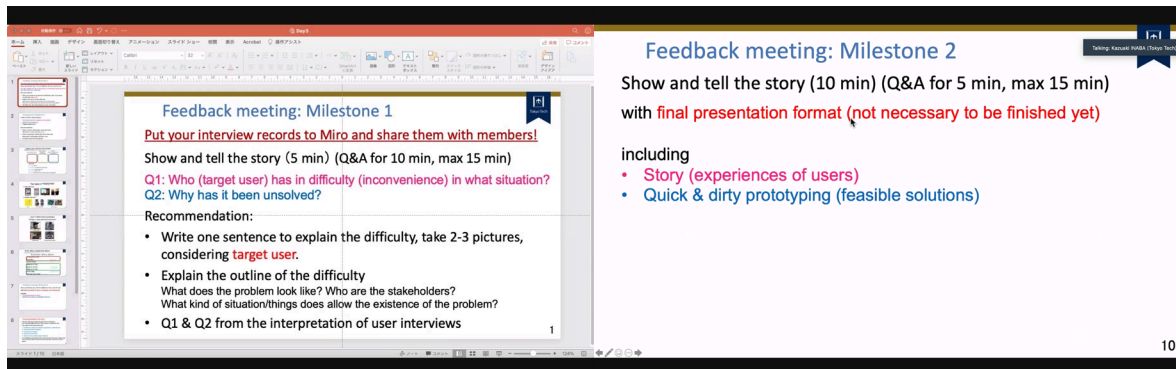


Figure 5: Two milestones before the final presentation

During the groupwork in the first three hours, we boosted our ideas to come up with a proposal taking advantages of 5G technology. After the interview, it became much clearer. Finally, we decided to take “TOF based healthcare system using 5G technology” as our topic. Although our proposal is currently hard to apply in a clinical practice, the professors took us very seriously and gave us comments.



Figure 6: A part of final presentation slides of our team

The other teams also did wonderful presentations. After that, we took a group picture and said bye to teammates. Finally, the awards were presented. Congratulations to my teammate Riccardo for winning the best presenter award! I received a certificate of participation from Dr. Tetsuya Mizumoto. I'm so glad to have it!



Figure 7: Group picture of our team (Team 1 Gamma dynamics)



Figure 8: Certificate of participation

### Program participants

To my knowledge, the participants in this year’s forum are from China, South Korea, India, Pakistan, Italy, etc. Regarding my teammate, Angus is from Hong Kong, Ashish is from India, and Riccardo is from Italy.

### Any difficulties you faced during the online program

Unfortunately, my teammates couldn’t come to Tokyo Tech because of the virus. Europe has a great time difference from Asia. We have some difficulties during group discussion. However, we tried our best to make some progress. We had a group meeting before the final presentation day at 11 p.m. in Japan, 10 p.m. in Hong Kong and Singapore, and 4 p.m. in Italy.

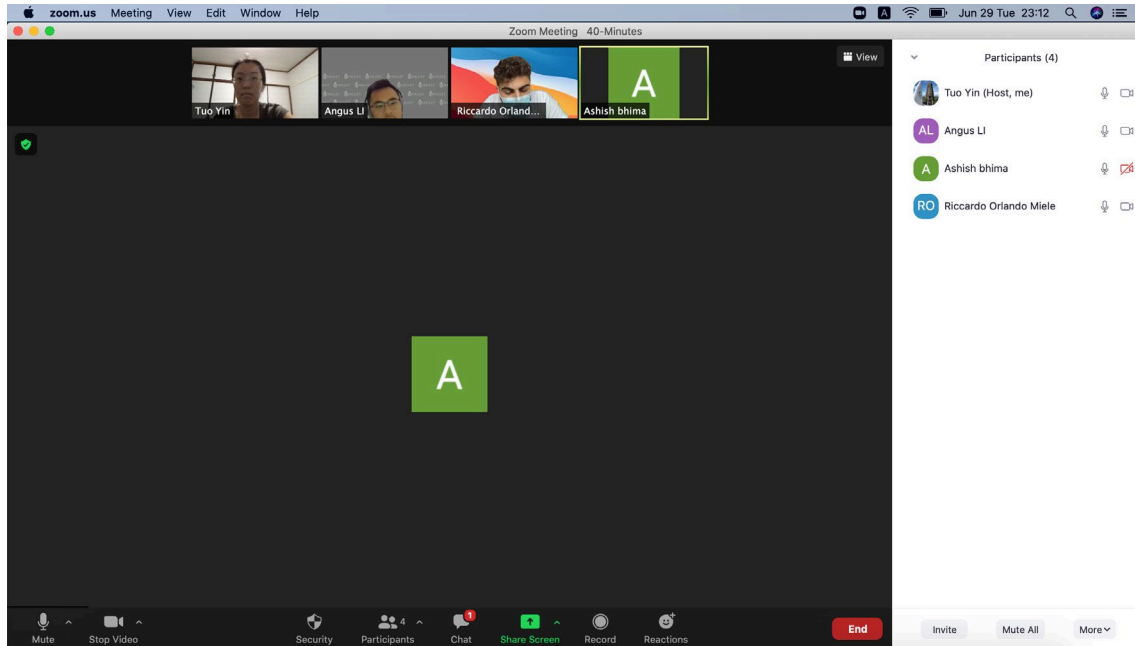


Figure 9: Having a group meeting before the final presentation day.

### **Outcomes of your participation in the program**

I think the biggest gain is the improvement of communication skills. Since it was online, I learned to concentrate on what my teammates were talking about. I tried to make my English expressions easier to understand, so that I could have efficient discussions with my teammates. It's not only about the improvement of my English listening skills, but also boost my ability to refine the main points and grasp the direction.

### **Any advice for students who wish to participate in a similar type of online program**

Don't be shy cause everybody you meet will be nice. Take it easy and have fun with your teammates!



# ASPIRE Forum 2021 Online Student Workshop

## Completion Report

Report Date                      2021        07        12

Your Name	Pinitjitsamut Pat		
Affiliation at Tokyo Tech	School of <u>Environment and Society</u> Dept. of Transdisciplinary <u>Science and Engineering</u>		
Student ID#	21M51906	Current academic program year	M1
Program theme	Better Living for All in a New Normal		
Program period	2021/06/24 to 2021/06/30		
Posting to the web	This report may be posted on Tokyo Tech website. Would you prefer to have your name included or excluded from the report if it is uploaded? <u>Include</u> / Exclude		

### Report contents

#### ① The reason you joined the program

The reason which inspiring me to participate in the program is to broaden my perspectives. As the theme of the workshop required cooperation of various fields of studies, lots of people who are in a different field can gather and freely exchange their knowledge and experiences in the program. Hoping to widen my knowledge and perspectives through this mechanism, I registered for the program. #

#### ② Pre-program preparations

Since the topic of the forum is public, I was able to research more about it beforehand. I especially research on the field with which I am not familiar so that I can get an overview and build some fundamental knowledge before the program starts.

The program organizer required each participant to select the workshop topic in advance. The choices include

[A] Propose super-smart services and products )e.g., smart mobility, smart agriculture, etc.( realized by 5G and beyond

[B] Propose services and devices to prevent accidents caused by changes in mental and physical functions of children or the elderly

[C] Propose any biotechnology-based services and devices that you think we have to invent and develop in order for 100 people to live on the moon for a year

I was interested and chose the [B] topic because I would like to challenge myself by working on a topic which I never done any research or projects related to it before. Another preparation was to download and study programs that will be used in the workshop. Even though there were programs with which I am not familiar, I can easily understand how to

install and use them through the participant guideline provided by the program organizer.

### ③ Program contents, activities

The main activities were conducted mainly on Zoom with the supports of Slack and Miro in some activities. The program was five days based. On the first day, the host gave a brief review of the activities and allowed the participants to introduce themselves and get to know each other through ice-breaking activities. Then, three lectures related to the workshop topics were given on the second day along with the group work tutorial.

After the tutorial, the program lets the participants freely discuss their work tendencies. In case which there is any question arose, the TAs of each team will help answer and support the participants. The third day included the symposium in webinar form which allow participants other than the workshop students to participate. Lecturers from different universities were presented and each of them shared amazingly interesting topics. From the second day to the last day, group work sessions were conducted.

Apart from the work and discussion within the group, each group was required to present their progress in the feedback meeting where they can get feedback from the faculties then adapted them to elevate their work before the final presentation.

The final presentation was launched on the last day of the program with the presence of the program's vice president and senior staff. Each group was evaluated, and the winner of the award was selected. Due to the Covid-19 situation, all participants were awarded and given the certificate of program completion in an online-based format.

By joining the ASPIRE forum, I am able to make connections with my teammates from other universities and even one who is from Tokyo tech as well. We communicated our ideas and worked together in positive attitudes and successfully delivered our final idea in the final presentation. Apart from the workshop discussion, we also exchanged the knowledge related to our culture and liking, we even follow each other on social media to keep in touch.

### ④ Program participants

The workshop students are from seven universities including Tokyo tech, KAIST, HKUST, Tsinghua, NTU, Politecnico di Milano, and RWTH Aachen with a total of 23 students.

### ⑤ Any difficulties you faced during the online program

The problem I faced in the workshop is that our groups have lots of ideas and it is difficult to disregard some of them out. However, we sorted the problem out by discussing it more in-depth in that topic and made votes. The other problem is the time difference. As one of our members was in Europe, the time when the workshop started in his/her local time is greatly different from JST. Therefore, we cannot discuss the meeting and he/she sometimes missed out on some of the afterwards-discussion or announcements leading to a delay in some of the decision-making process.

### ⑥ Outcomes of your participation in the program

The completion of this workshop left me with such a great impression. Not only I fulfilled my initial goal in acknowledging new perspectives from people in different fields, but I also got opportunities to make new friends and develop my interpersonal skills working with others from different tongues, cultures and universities.

### ⑦ Any advice for students who wish to participate in a similar type of online program

I would like to encourage students who are hesitant whether if they should register in the ASPIRE Workshop or a similar type of online program to go for it. Even though your initial

goals and what will happen in the program might not go as you expect, challenging yourself to new experiences will surely teach you one thing or two in life aspects. Plus, you only got a few years to call yourself a student, so if the opportunity comes why not grab them first?

# ASPIRE Forum 2021 Online Student Workshop

## Completion Report

Report Date                      2021        07        05

Your Name	ZHANG BO		
Affiliation at Tokyo Tech	School of Environment and society Dept. of interdisciplinary science and technology		
Student ID#	19M58720	Current academic program year	M2
Program theme	Propose services and devices to prevent accidents caused by changes in mental and physical functions of children or the elderly.		
Program period	2021/6/24    to    2021/6/30		
Posting to the web	This report may be posted on Tokyo Tech website. Would you prefer to have your name included or excluded from the report if it is uploaded?    Include		

### Report contents

① **The reason you joined the program**

Because I want to improve the ability of collaborating with others and communicating with others. In addition, the program also provides a precious opportunity to learn a great deal from other excellent students from different universities.

② **Pre-program preparations**

- Collect information

I looked through the website of ASPIRE program and received the mail from the Institute. I think it is very interesting and want to practice my spoken English and ability of communication.

- Contact and request from program organizer

After learning about the program, I contacted the department and inquired some details. Then I talked with my academic supervisor and got a consent.

③ **Program contents, activities**

- Platform (Zoom, Miro, slack)

We used zoom meeting to talk some details and do presentation. In addition, we also utilized miro, which seems like a situation that we are in a classroom talking with each other, to express our ideas and randomly stick to some notes in the miro. Slack was used to received some important information from department.

- Schedule



**ASPIRE Forum 2021 (Online)**  
**Better Living for All in a New Normal**  
 Student Workshop, VPSS Meeting & Student Presentations June 24-30, 2021  
**Program\***

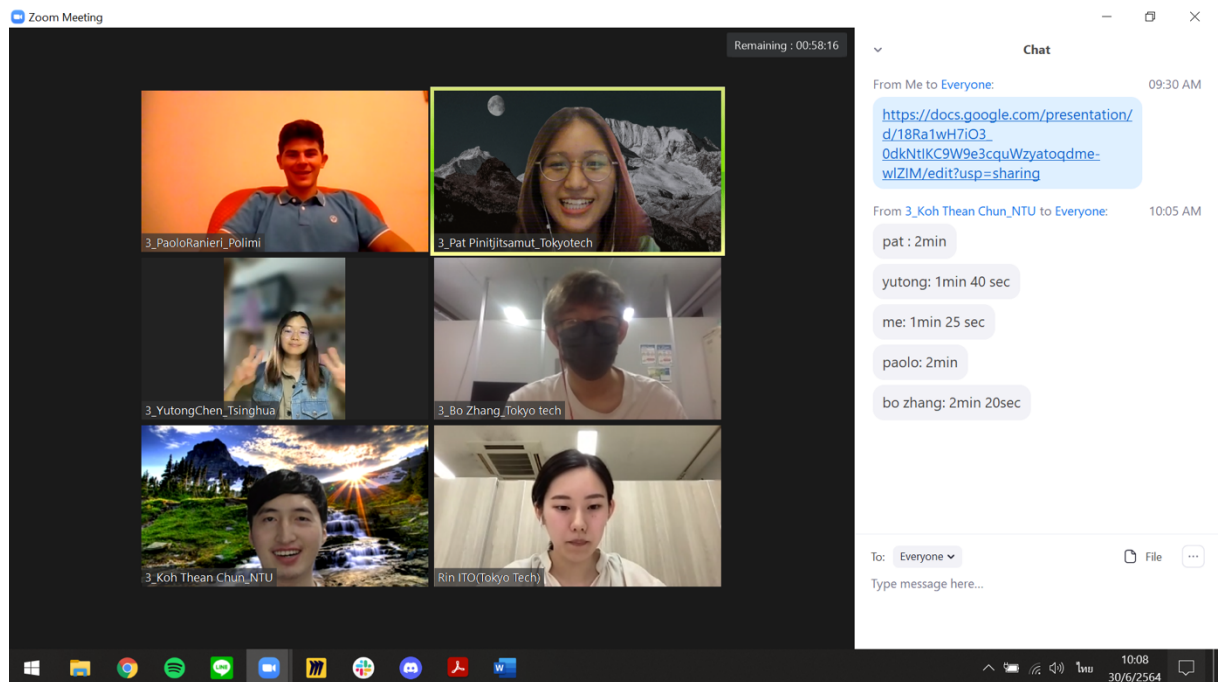


June 24, Thu	June 25, Fri	June 28, Mon	June 29, Tue	June 30, Wed
Day 1	Day 2	Day 3	Day 4	Day 5
	Lecture 1 10:00-11:00 (1h) Prof. Sakaguchi	Group Work 2 10:00-11:00 (1h)	Group Work 3 10:00-11:00(1h)	Group Work 7 10:00-11:00 (1h)
	Break (15 min)	Break (15 min)	Break (15 min)	Break (15 min)
	Lecture 2 11:15-12:15 (1h) Prof. Nishida	Feedback Meeting 1 11:15-12:15 (1h)	Group Work 4 11:15-12:15(1h)	Group Work 8 11:15-12:15 (1h)
	Lunch Break 12:15-13:10 (55min)	Lunch Break 12:15-14:00(1h45min)	Lunch Break (1h15min)	Lunch Break (1h15min)
	Lecture 3 13:10-14:10(1h) Prof. Aizawa		Group Work 5 13:30-14:30 (1h)	ASPIRE Students' Presentations to VPs & Senior Staff 13:30-15:55(2h25min)
	Break 14:10-14:45(35 min)	ASPIRE Symposium 14:00-17:00 (3h)	Break (15 min)	
Pre-Orientation Ice Breaking Activity 14:30-15:30 (1h)	Group Work Tutorial 14:45-15:45 (1h)		Group Work 6 14:45-15:45 (1h)	Evaluation of Presentations 15:55-16:20 (25 min)
Opening Ceremony Orientation 15:30-16:30 (1h)	Break (15 min)		Break (15 min)	Presentation of Awards Closing Ceremony 16:20-16:45 (25 min)
	Group Work 1 16:00-17:00 (1h)		Feedback Meeting 2 16:00-17:00 (1h)	

Lectures  
 Group Work and Activities for students  
 Activities for VPSS  
 Activities for students & VPSS  
 \*1 The time in the schedule refer to Japan Standard Time (GMT+9)

- Activities (Lecture, workshop, presentation)

Photo:



- Networking with other participants

We also exchange our social apps ID like ins and we chat, and we hope that even the program is finished, yet our friendship won't have an ending.

**④ Program participants**

There were 5 participants (1 from Italy, 2 from Tokyo tech, 1 from Tsinghua and 1 from NTU). They are very excellent so that they come up with some good ideas to solve problems.

⑤ **Any difficulties you faced during the online program**

- Time management. Because at the same I must take some required courses, sometimes I can't put forward some ideas to support my teammates so much.
- Listening comprehension. Because my listening is poor so that I cannot understand some mates' meaning adequately.

⑥ **Outcomes of your participation in the program**

I think that I have benefited a great deal from the program about team collaboration and how to cooperate with team members. In addition, I also learned the importance of communication, therefore, in the future, I will hold the spiration to do further research in my field.

⑦ **Any advice for students who wish to participate in a similar type of online program**

It is definitely an unforgettable and cherished experience that gives students a period of time. Therefore, it also gives a lesson that don't hesitate to choose, and you will obtain a good experience.

# ASPIRE Forum 2021 Online Student Workshop Completion Report

Report Date      2021    YY   07   MM   20   DD

Your Name	Ming Xianwen		
Affiliation at Tokyo Tech	School of <u>Engineering</u> Dept. of <u>Systems and Control Engineering</u>		
Student ID#	20M18366	Current academic program year	M1 year
Program theme	Propose any biotechnology-based services and devices that you think we have to invent and develop in order for 100 people to live on the moon for a year		
Program period	2021 YY 06 MM 24 DD to 2021 YY 06 MM 30 DD		
Posting to the web	This report may be posted on Tokyo Tech website. Would you prefer to have your name included or excluded from the report if it is uploaded?    Include		

## Report contents

### ① The reason you joined the program

The reason why I want to join the program is that: firstly, it's my first time to join such kind of workshop, and I think it's a chance to challenge myself and improve my personal ability. Secondly, it is also a good chance to know friends from other schools in the world and communicate with them.

### ② Pre-program preparations

- Collect information

I got the program information from the website of TokyoTech. And I think it is very interesting so I searched some previous information about it. And I decide to apply for it.

- Contact and request from program organizer

And then I sent an email to the progress of neither. And they organized an interview for me.



# ASPIRE Forum 2021

## Online Student Workshop



### Call for Applicants

#### June 24–30, 2021

**Online Workshop with students from Asian leading Science and Technology Universities**

In conjunction with the annual forum, a student exchange program, "Student Workshop" will be held online this summer. Participants will attend lectures on the theme "Better Living for All in a New Normal." In teams comprised of student counterparts from ASPIRE League<sup>\*1</sup> and IDEA League<sup>\*2</sup> member universities, participants will develop group presentations related to the workshop theme and deliver them to the ASPIRE League's Vice Presidents on the final day of the ASPIRE Forum.

---

ASPIRE League<sup>\*1</sup>: ASPIRE League is a consortium of leading science and technology universities that includes the Hong Kong University of Science and Technology (HKUST), Korea Advanced Institute of Science and Technology (KAIST), Nanyang Technological University (NTU), Tsinghua University, and Tokyo Tech. Tokyo Tech serves as a secretariat of the league since it established in 2009.

IDEA League<sup>\*2</sup>: A consortium of five leading science and technology universities in Europe: Delft University of Technology (TU Delft) in the Netherlands, Swiss Federal Institute of Technology, Zurich (ETH Zurich) in Switzerland, RWTH Aachen University in Germany, Chalmers University of Technology in Sweden, and Politecnico di Milano in Italy.





International Engagement Division  
South Bldg. 6, 3F, 301B, Ookayama campus

**Email** aspiretokyotech@jim.titech.ac.jp

**TEL** 03-5734-3016

### ③ Program contents, activities

- Platform (Zoom, Microsoft TEAMS, Cisco Webex, Google Meet)

Zoom

- Schedule

June 24, Thu Day 1	June 25, Fri Day 2	June 28, Mon Day 3	June 29, Tue Day 4	June 30, Wed Day 5
	<b>Lecture 1</b> 10:00-11:00 (1h) Prof. Sakaguchi	<b>Group Work 2</b> 10:00-11:00 (1h)	<b>Group Work 3</b> 10:00-11:00(1h)	<b>Group Work 7</b> 10:00-11:00 (1h)
	Break (15 min)	Break (15 min)	Break (15 min)	Break (15 min)
	<b>Lecture 2</b> 11:15-12:15 (1h) Prof. Nishida	<b>Feedback Meeting 1</b> 11:15-12:15 (1h)	<b>Group Work 4</b> 11:15-12:15(1h)	<b>Group Work 8</b> 11:15-12:15 (1h)
	<b>Lunch Break</b> 12:15-13:10 (55min)	<b>Lunch Break</b> 12:15-14:00(1h45min)	<b>Lunch Break</b> (1h15min)	<b>Lunch Break</b> (1h15min)
	<b>Lecture 3</b> 13:10-14:10(1h) Prof. Aizawa		<b>Group Work 5</b> 13:30-14:30 (1h)	<b>ASPIRE Students' Presentations to VPs &amp; Senior Staff</b> 13:30-15:55(2h25min)
	Break 14:10-14:45(35 min)		Break (15 min)	
<b>Pre-Orientation</b> Ice Breaking Activity 14:30-15:30 (1h)	<b>Group Work Tutorial</b> 14:45-15:45 (1h)	<b>ASPIRE Symposium</b> 14:00-17:00 (3h)	<b>Group Work 6</b> 14:45-15:45 (1h)	
<b>Opening Ceremony</b> Orientation 15:30-16:30 (1h)	Break (15 min)		Break (15 min)	<b>Evaluation of Presentations</b> 15:55-16:20 (25 min)
	<b>Group Work 1</b> 16:00-17:00 (1h)		<b>Feedback Meeting 2</b> 16:00-17:00 (1h)	<b>Presentation of Awards</b> Closing Ceremony 16:20-16:45 (25 min)

Lectures
Activities for VPSS

Group Work and Activities for students
Activities for students & VPSS

\*1The time in the schedule refer to Japan Standard Time (GMT+9)

- Activities (Lecture, workshop, presentation)

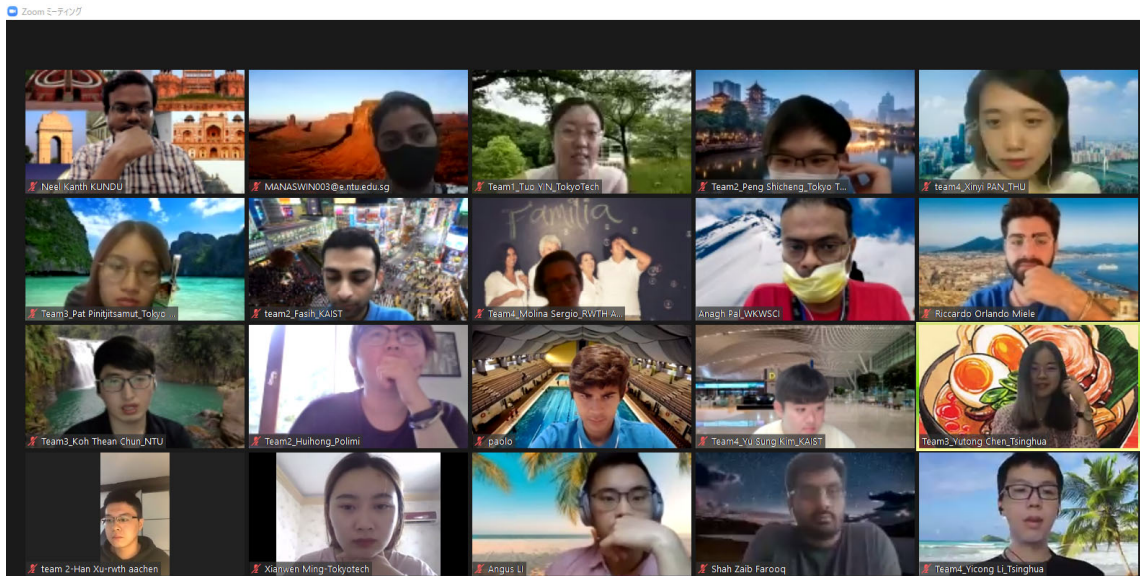
The activity of this workshop, including some lecture that relative to the topics, And then, after



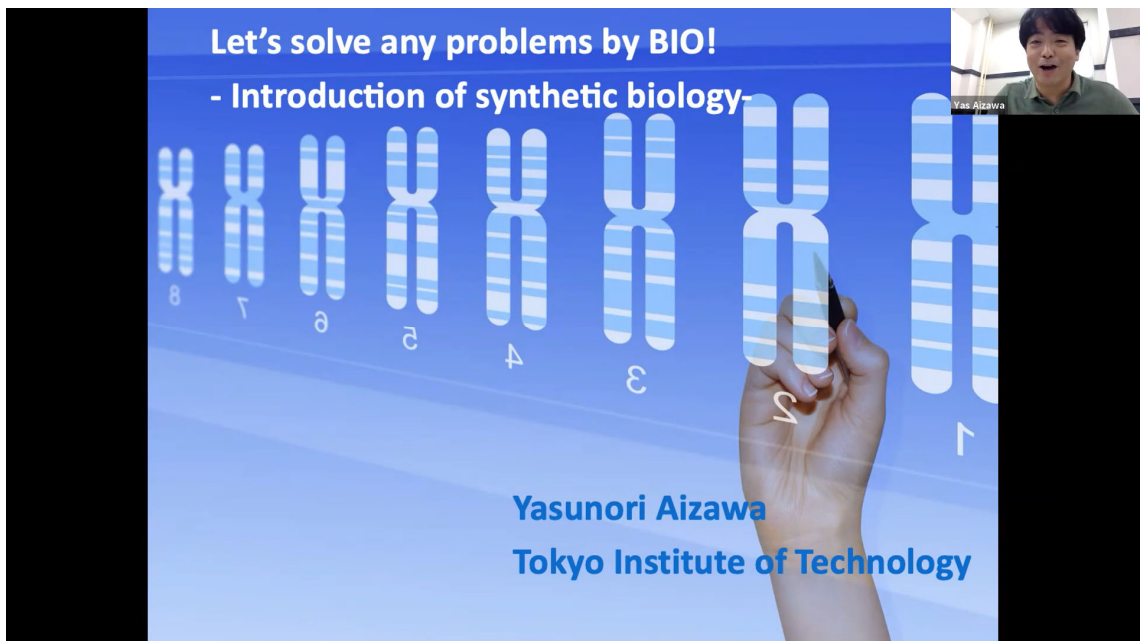
listening to the lecture, we will have a primary discussion of our topic with our team member. Then for several discussion we create our presentation slide the show it on the final presentation meeting.

- Networking with other participants

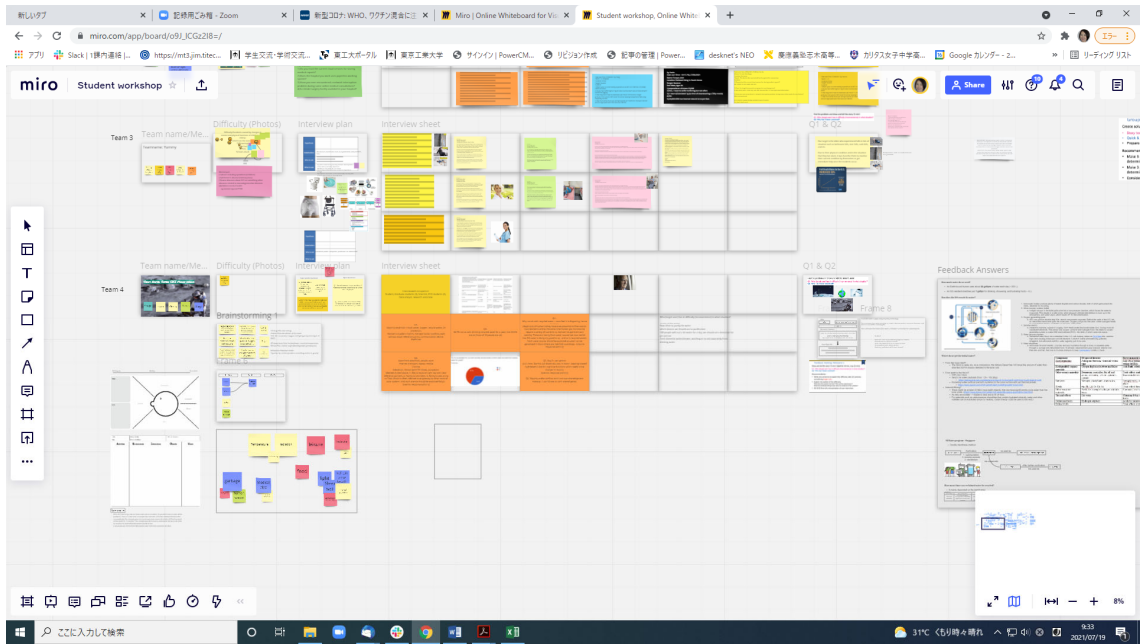
We use Miro to make our brainstorm and communicate by zoom and Miro, and information communication by Slack



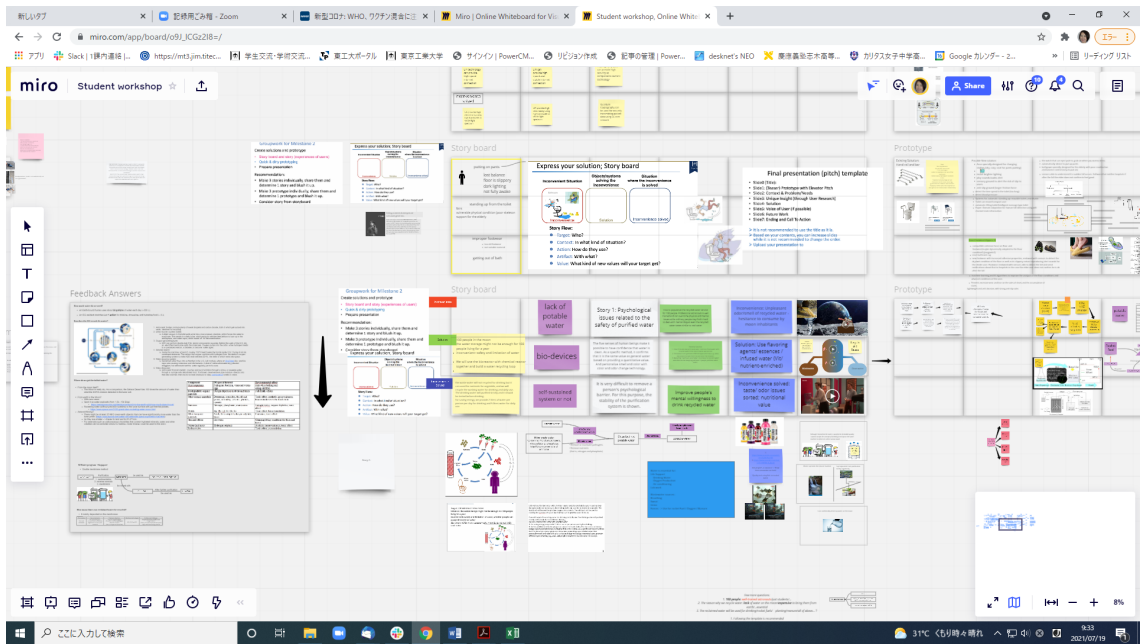
(Meeting for all participants)



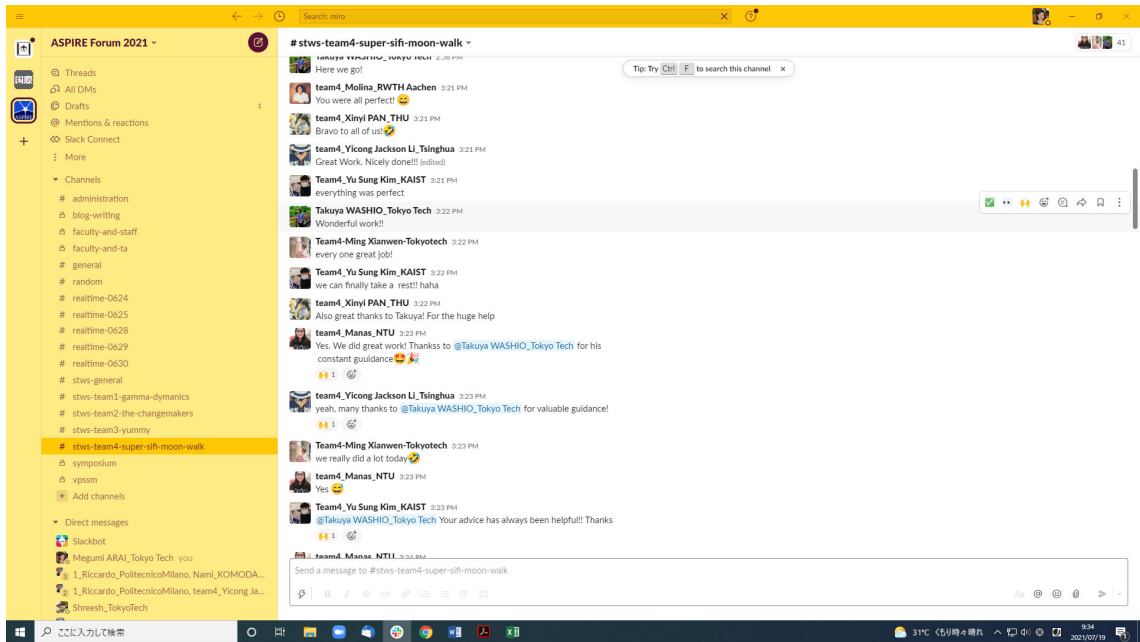
(Listening to lectures)



(Discussion on Miro)



(Discussion on Miro of our team)



(Communication by Slack)



PowerPoint Slide Show - ASPIRE Forum Team4 Water and Food.pptx - PowerPoint

## Solution

1. Treatment of human fluid waste using **urease producing bacteria** (can be GMO- genes from Bacillus, Sporosarcina, Pseudomonas and Paracoccus in a host organism) in minibioreactors with biologically activated carbon and membranes for filtering.
2. CO<sub>2</sub>, NH<sub>3</sub> released as byproducts can be utilized by plants. (NH<sub>3</sub> conversion to nitrates using Paracoccus **nitrification** genes)
3. Resulting clean water for astronauts' consumption, 3D printing food, plant life exploration.
4. Test water quality using freshwater fish behaviour (not done on Moon before)
5. Also use biosensing bacteria to detect trace amounts of urea/ other contaminants; they can fluoresce by expression of fluorescent protein with urease.

Minibioreactors with membrane and bacteria

Urea

Water

NH<sub>3</sub>

CO<sub>2</sub>

1:56:01 Slide 5 of 12

Windows taskbar: 31°C, 9:40 2021/07/19

Student workshop, Online Wi...

miro.com/app/board/o9J\_ICGz2I8=/?

miro Student workshop

Who

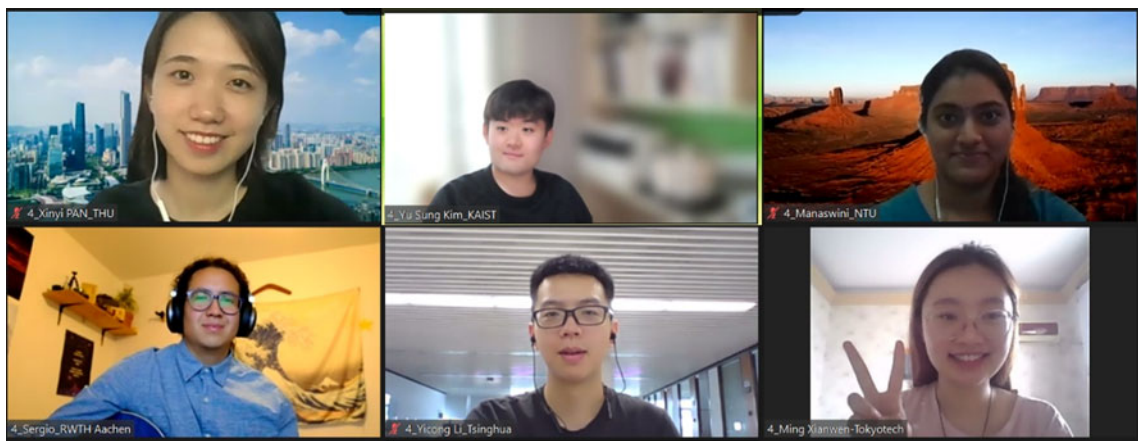
will be staying on the moon for a year with 100 ppl

0:00:20 elapsed time

Windows taskbar: 31°C, 9:35 2021/07/19



(Final presentation for our team)



(Group photo of our team)

- Certificate of program completion, any awards  
It is great honor that our team won the best group presentation award



## ASPIRE Forum 2021

ASPIRE Forum Student Workshop

*Best Group Presentation Award*

is presented to

Team4 Super Sci-Fi Moonwalkers

Kim Yu Sung

Li Yicong

Pan Xinyi

Ming Xianwen

Manaswini Rangarajan

Sergio Roberto Molina Ramirez

for their presentation entitled

*Water Purification for Food Production on Moon*

by

Dr. Tetsuya Mizumoto

Executive Vice President for Education

Tokyo Institute of Technology

Chairperson of the ASPIRE League

**ASPIRE League**

Asian Science and Technology Pioneering Institute of Research and Education

#### ④ Program participants

There are 23 participants (2 from The Hong Kong university of science and technology. 3 from Germany, 2 from China, 3 from Nanyang Technological University, 3 from Politecnico di Milano and, 2 from RWTH Aachen and 5 from Tokyo Institute of Technology)."

#### TokyoTech participants

Tokyo Institute of Technology	YIN Tuo	F	Information and Communications Engineering	Master	2
	PINITJITSAMU Pat	F	School of Environment and Society	Master	1
	ZHANG Bo	M	Nuclear engineering	Master	2
	MING Xianwen	F	Systems and control engineering	Master	1
	PENG Shicheng	M	Materials Science and Engineering	Master	1

**⑤ Any difficulties you faced during the online program**

- Because it is online program and sometimes, we cannot have all our team members attending the meeting together, someone may have other issues. So we have to face the difficulty of time management and online engagement is lower than in real life.

**⑥ Outcomes of your participation in the program**

Our topic is very challenging and creative. We narrowed down our goals and come up with some creative points. Finally, one of our team members won the best person awards and our team won the best presentation awards.

**⑦ Any advice for students who wish to participate in a similar type of online program**

I'm very glad to be part of this activity. Just enjoy talking with others and you can share any points even it is ridiculous. And arrange your time, make sure you can attend all the online meeting. Enjoy your time and you will have the chance to know friends from all around the world.

# ASPIRE Forum 2021 Online Student Workshop

## 修了報告書

報告年月日 2021年 7月 13日

氏名	彭師承 (Peng Shicheng)		
所属学院系・コース	物質理工学院材料系材料コース		
学籍番号	21M21584	課程・学年	M1
テーマ (プログラム)	Better Living for All in a New Normal (自分の命題: Propose super smart services and products (e.g. smart mobility, smart agriculture, etc.) realized by 5G and beyond)		
期間	6月24日-30日		
H P 掲 載	この報告書は本学HPに掲載する可能性があります。匿名を希望しますか。 はい <input checked="" type="radio"/> いいえ		

### 報告事項

#### ① 参加希望理由

学部生のときから、大学院で留学プログラムに参加することを考えていました。大学から留学生として東工大で勉強してきて、語学力の向上と日本に対する理解を深めてきました。そのため、大学院では、研究と勉強のほかに、ほかの国へ行って視野を広げたいと考えるようになりました。残念ながら、コロナの影響で、現地に渡航するプログラムはほとんどなくなりましたが、幸い、今回のオンラインワークショップ開催されることを知り、様々な国からのエリートとコミュニケーションが取れるチャンスがあると考え、躊躇なく参加することを決めました。

#### ② プログラムに参加するにあたっての事前準備

応募にあたり申請書を記入した際にいくつかの疑問がありましたが、日本語で問い合わせ、10分もかからずに解決しました。ワークショップがオンライン開催なので、手続きは少ない方だと思います。自分の場合は、提出種類を2日以内で全部用意することができました。ワークショップへの参加が決まった後に、ワークショップ全体の進み方やテーマの選択についての説明がありました。ここから全部英語になりましたが、主催者からの返事が早く、コミュニケーションが取りやすい気がしました。

そのほか、ワークショップに参加する前に、自分が扱う命題について、いろいろなウェブサイトを通じて調べました。自分の研究内容と少し離れた命題を選んだため、英語について特に準備せず、基礎的な知識をメインに勉強しました。命題に関連する研究を行う人にはまだ及びませんでしたが、彼らとコミュニケーションできるようになって、自分の成長を感じました。

#### ③ プログラムの内容

今回のオンラインワークショップは主に Zoom, Slack, Miro の3つのプラットフォームを使用しました。



ZoomとSlackは、授業または研究室で広く使われているので、東工大生は比較的になじんでいると思います。個人的にMiroを使うのは初めてでしたが、一日目では使い方に関する説明のおかげで、ほぼ問題なく使用できました。それに、最後の発表ではグループのメンバーが同時に作業できるように、Googleドライブの共有機能を使ってスライドを編集しました。

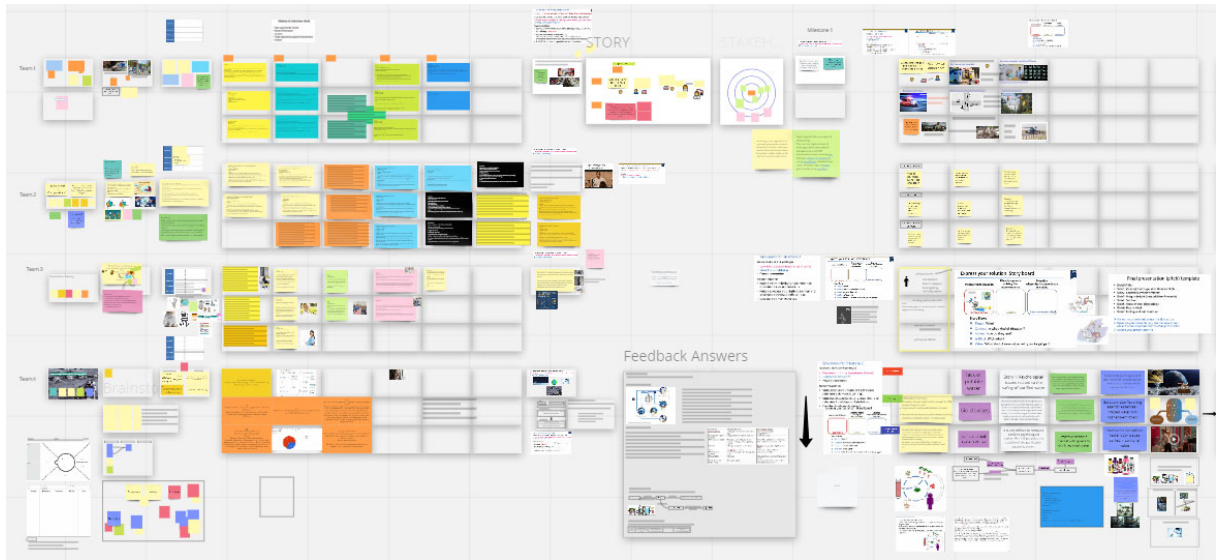


図 1.ワークショップで使った Miro の一部の写真

今回のワークショップは一週間で、スケジュールは図 2 のようになります。2 回のフィードバックミーティングとプレゼンテーションに向けて、グループディスカッションが数多くありました。そのほか、東工大の先生による 3 つ講義と ASPIRE リーグの 5 つの加盟大学の教員によるシンポジウムもありました。

June 24, Thu Day 1	June 25, Fri Day 2	June 28, Mon Day 3	June 29, Tue Day 4	June 30, Wed Day 5
	Lecture 1 10:00-11:00 (1h) Prof. Sakaguchi	Group Work 2 10:00-11:00 (1h)	Group Work 3 10:00-11:00(1h)	Group Work 7 10:00-11:00 (1h)
	Break (15 min)	Break (15 min)	Break (15 min)	Break (15 min)
	Lecture 2 11:15-12:15 (1h) Prof. Nishida	Feedback Meeting 1 11:15-12:15 (1h)	Group Work 4 11:15-12:15(1h)	Group Work 8 11:15-12:15 (1h)
	Lunch Break 12:15-13:10 (55min)	Lunch Break 12:15-14:00(1h45min)	Lunch Break (1h15min)	Lunch Break (1h15min)
	Lecture 3 13:10-14:10(1h) Prof. Aizawa		Group Work 5 13:30-14:30 (1h)	ASPIRE Students' Presentations to VPs & Senior Staff 13:30-15:55(2h25min)
	Break 14:10-14:45(35 min)		Break (15 min)	
Pre-Orientation Ice Breaking Activity 14:30-15:30 (1h)	Group Work Tutorial 14:45-15:45 (1h)	ASPIRE Symposium 14:00-17:00 (3h)	Group Work 6 14:45-15:45 (1h)	Evaluation of Presentations 15:55-16:20 (25 min)
Opening Ceremony Orientation 15:30-16:30 (1h)	Break (15 min)		Break (15 min)	Presentation of Awards Closing Ceremony 16:20-16:45 (25 min)
	Group Work 1 16:00-17:00 (1h)		Feedback Meeting 2 16:00-17:00 (1h)	

図 2.ワークショップのスケジュール

初日はアイスブレイクとオリエンテーションでした。参加者は後ろのバックグラウンドを自分が好きなものや場所に変えて、それに合わせて自己紹介を行いました。そしてオリエンテーションでは、ワークショップ全体の進み方とプラットフォームの使い方などを紹介してくれました。

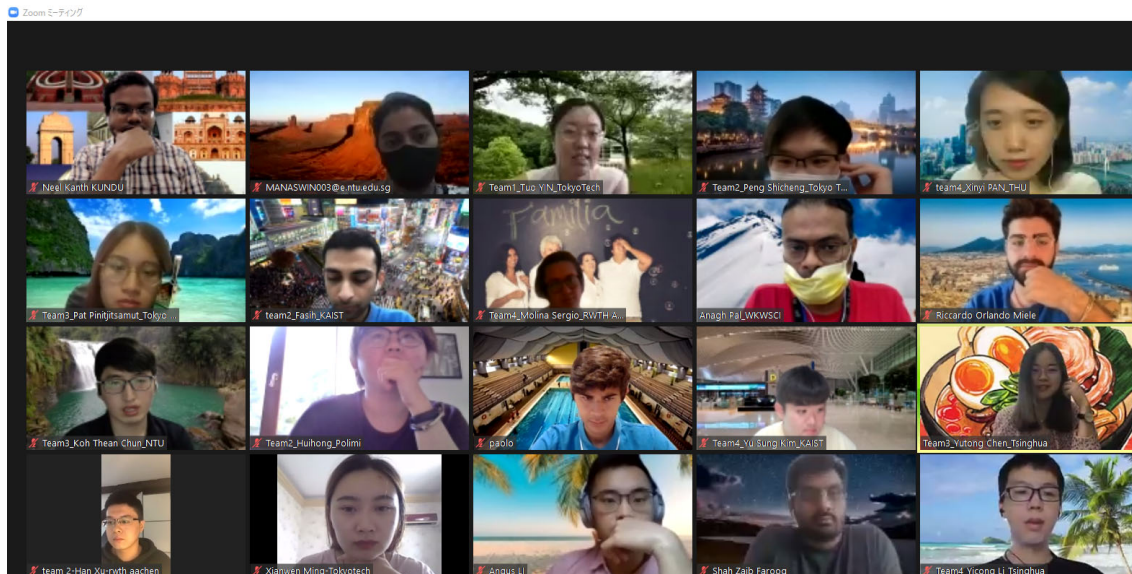


図 3. アイスブレイクの様子(参加者一部)

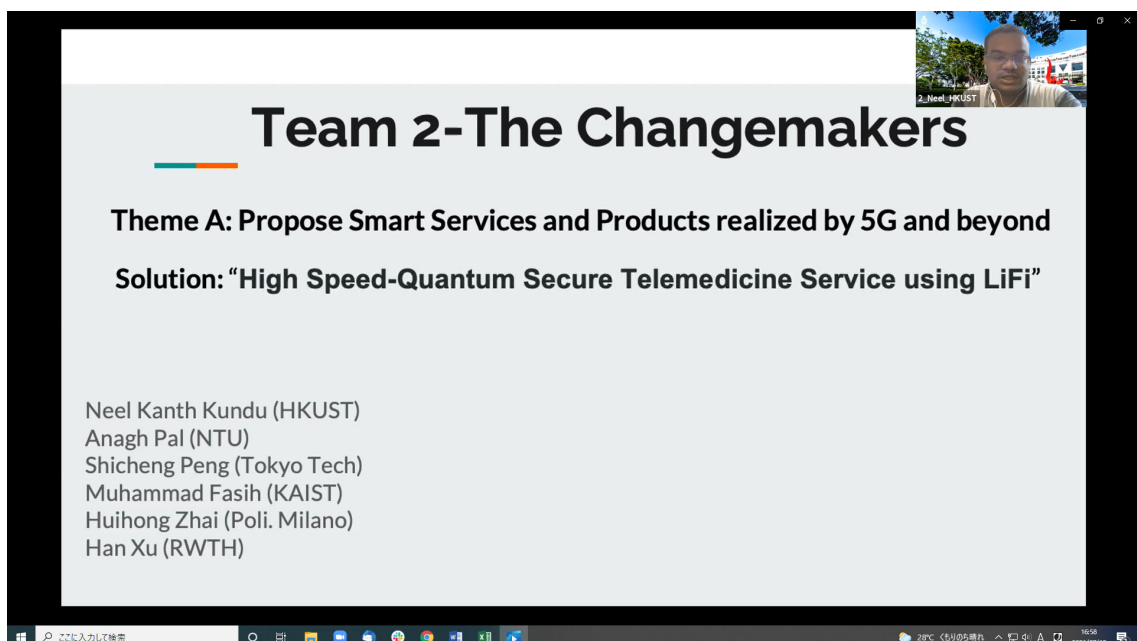
次の日、3つのテーマに関する講義を受講しました。日常生活とのつながりが強く感じられる研究で、面白かったと思います。その後、TAの指導を受けながら、4つのグループがそれぞれ自分のテーマを決めました。





図 4.坂口先生の講義の様子

シンポジウムに参加した後、最終のプレゼンテーションに向けてスライドを作りました。フィードバックミーティングで先生、TA およびほかの参加者の意見を参考にして、グループディスカッションを通じてプレゼンテーションの準備を整えました。自分との専門領域とかなり離れたため、技術の説明ではなく背景などの説明を担当しました。自分なりにグループワークで活躍できたことは、かなりうれしかったです。



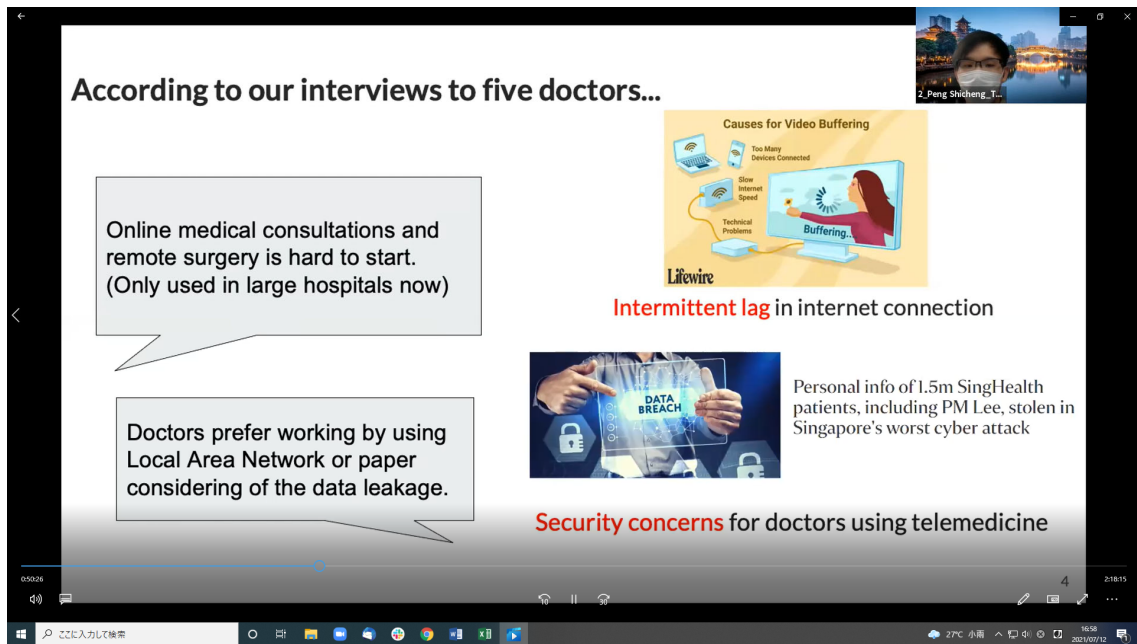


図 5.グループ 2 のプレゼンテーションの様子

最終のプレゼンテーションが終わった後に、グループ発表最優秀賞 1 グループと優秀発表者 2 人が選ばれました。残念ながら、所属していたグループ 2 は最優秀賞を取ることはかなわず、自分も優秀発表者には選ばれませんでした。ワークショップが終了した後に、このような修了証をもらいました。参加して努力した証であり、非常にありがたいです。



図 6.ワークショップの修了証

ワークショップはオンラインで、時間的にも少しきびしいため、グループワークでの活動が中心となり、雑談などの時間を取ることがあまりできませんでした。ある日グループディスカッションが終わった後に、グループメンバーの 1 人と大学や研究について話すことができ、うれしかったです。

残念ながら、ほかのグループの人とはプレゼンテーションの Q&A 以外に、あまりコミュニケーションを取れない気がしました。ほかのテーマの人と話すのはさぞ面白いだろうなと思いつつも、そのようなチャンスはありませんでした。また、自分のグループでは最後連絡先を交換した際に、LinkedIn を使いました。次回のワークショップに参加する予定の人はアカウントを持った方がいいかもしれません。

#### ④ 参加者内訳

東工大からの参加者は中国からの留学生が 4 人、タイからの留学生が 1 人でした。みんな英語がうまくて、自分の英語力が足りないのではないかと思いましたが、ワークショップに参加した体験から言うと、日常的なコミュニケーションが取れるレベルがあれば問題がないと思います。

#### ⑤ オンラインプログラムに参加するにあたり、特に苦労した点(あれば)

主に 2 つありました。一つ目は時差です。今回のワークショップには ASPIIRE リーグの 5 つの大学のほかに、ヨーロッパの理工系大学コンソーシアムである IDEA リーグから、ミラノ工科大学とアーヘン工科大学の学生も参加しました。僕が所属していた 6 人のチームにおいて、2 人はヨーロッパに住んでいて、午前中のディスカッションに参加する場合、朝 3 時に起きる必要がありました。さすがにきびしいと思ったので、午前中のグループディスカッションは主にそれ以外の 4 人でやりました。一日の日程が終わった後に、ヨーロッパからの参加者を交え、Zoom に残って、軽く意見交換を補足的に行うこともありました。時差という、オンラインならではの不便さを感じました。

もう一つは苦労というより、心残りと言った方が適切だと思います。全員オンラインでの参加となったため、例年のオフライン型プログラムと比べて盛り上がり欠けた気がします。オンライン参加の場合、周りの環境に影響されたり、急用がでたりして、カメラを切って、マイクをオフにする、またはいったん席を外すということがどうしても避けられない場合もありました。また、テーマについての議論が終わったあと Zoom に残って、雑談などをする人がかなり少なかったです。オフラインと比べて、ほかの学生と一緒にいる時間が短く、仕事に集中するイメージが強いかもかもしれません。仕方がないことですが、この点については残念だと感じました。もしオフラインで参加できるチャンスがあれば、もう一回申し込みたいところです。

#### ⑥ プログラム参加の成果

実は、このようなワークショップに参加したのは今回が初めてでした。まず、英語でコミュニケーションを取ることで、自分のスピーキングにおける強みと弱みが明確になり、今後の勉強に対して非常に参考になります。それに、自分の研究がどのように日常生活と結びつくかということについて、少し理解が深まった気がします。この経験は、これからの研究ないし仕事の中で必ず役に立つと思います。また、ワークショップに参加することで、数多くの優秀な仲間に出会うことができました。これからも引き続き連絡を取り合い、研究や仕事、留学生活などに関してコミュニケーションを取ることを期待しています。

#### ⑦ 同様のオンラインプログラムへの参加を検討している他の学生へのアドバイス

とにかく応募してみる事が大事だと思います。オンラインのプログラムは、オフラインと比べて、スケジュールにおける自由度が高く、ほかの参加者とコミュニケーションする際のストレスも少ないので、このようなプログラムに参加してみるチャンスです。研究生活は日々忙しいですが、違う世界を見る機会をぜひ逃さないようにしましょう。