

報告事項

① 留学先(参加プログラムおよび受入れ機関)の概略

ETH Zurich の Institute for Science, Technology, and Policy(ISTP)が主催するサマースクールで、今回が2度目の開催だった(ISTP が主催するのが2度目)。現地での宿泊費・食費はETH の予算から支給された。ETH は IDEA リーグに加盟しており、サマースクールの参加者は IDEA リーグおよびその姉妹リーグで東工大の加盟する ASPIRE リーグから募られた(IDEA リーグ自体は基本的に広報の役割を果たしており、資金調達や運営には携っていないと聞いた)。プログラムの内容は、講義とグループワーク(最終日に発表)、そして交流だった。

40 名の参加者は7校の大学と15か国の国籍を代表しており、平均年齢は約26歳だった。

② 留学前の準備

留学情報の入手方法、専門分野・語学の準備方法、留学先の研究室に所属した場合は、留学先大学の指導教員との準備、ビザ取得方法、住居の探し方など。

事前課題として計 15 本の論文や本の章を読む必要があった。それにより、サマースクールでの講義やグループワークの内容が予習できるようになっていた。主催者の指示に従って Moodle の登録や宿泊施設までの鉄道券の入手などを行った。日本のパスポートを持っている場合はスイスへのビザは不要。大学から指定されている海外旅行保険に加入した。

③ 留学中の勉学・研究

履修した授業, 研究内容等についての感想。留学中に行った課外活動(観光やスポーツ等)がある場合は、併せて記入してください。

講義は ETH の教授(および ETH と関わりのある教授)、ポスドク、PhD 学生の計 12 人によって行われた。内容は多岐にわたっていたがどれも対話・学生の発言を重視していた。基本的には事前課題の読書をしていれば聞いたことのある内容が多かった(むしろ、予習の段階で新しく学ぶことが多かった)が、もちろんより踏み込んだ内容について質問することもできた。多くの学生が手を挙げるので、アメリカで学校に通っていた頃を思い出した。講義そのもの以上に、講義後の食事の際に会話すると参加者の学生が講義内容に対して自分の意見をはっきりと持っていることを面白く感じた。

講義・グループワークを通して特に印象に残ったメッセージは次の3点である。1. 「持続可能性」は、 具体的に計測可能でかつ人々が理解できる枠組みで捉えられるべきである。2. 気候変動対策を、 みんなにとってより良い世界を創出する方法として語るべきである。3. 持続可能性を目指す過程で、 従来の、例えば植民地主義のような仕組みを再現しないこと、そして地域ごとの違いを考慮すること が重要である。

サマースクールはとにかく楽しかった。最終日に他の学生も「こんなに楽しいと思わなかった。本当に来てよかった」「解散するのが寂しくてお腹がギュッとなって最後のランチはあまり食べる気にならなかった。でもここを出たら(スイスにいる間は物価が高すぎて)何も食べられないから一生懸命食べた」と言っていて、同じような気持ちだった。期間がもっと長ければ、仲良くなった人とはさらに仲良く、そし

てより多くの人と仲良くなれたとは思うが、十分満足できた。

④ 留学を終えて、自分自身の成長を実感したエピソード

他国の学生等との交流、海外における勉学・研究等の学校生活や日常生活を経験して、自身の成長を実感したことと思います。留学前に立てていた目標に対する達成度や苦労話など、何でも結構ですので、自身の成長を実感した中で一番記憶に残っているエピソードを記入して下さい。

私は物心ついた頃から人見知りで、自分から話しかけたり輪に入ったりするのが苦手だった。しかし今回は、自分の人生の中で最も(に近いくらい)積極的に交流が出来たと思う。それはこれまでに様々な経験を経て自分に自信を持てるようになったことの表れであると同時に、優しくて明るい参加者の雰囲気のおかげでもあると思う。サマースクールでの経験のおかげで、今後英語圏の環境に身を置くことになっても人間関係を築き楽しく過ごせるという自信が得られた。また、仲良くなった年上の学生(36歳、29歳)に、「あなたは well-read で色々なことを知っている」「大人っぽいからもっと年上(27歳)かと思った!」と褒めてもらい、これも嬉しかった。

最後に、2年半のコロナ禍をほとんど家の中で過ごしていたため、自分でも気づかないうちに慎重(臆病)になり、外からの・外に向けるエネルギーが足りていなかったと思う。今回、久しぶりに一人で飛行機に乗りスイスまで旅をして、たくさんの新しい人と出会ったことで、独立した大人としての自分への自信を取り戻せただけでなく、行く前よりも心身ともに健康になったように感じる。

⑤ 留学費用

渡航費、生活費、住居費、保険料、奨学金の有無など。

航空券はカタール航空(ドーハ経由)で約 17 万円だった。2 カ月強前の 6 月 21 日に購入した。コロナ禍やウクライナ侵攻後の燃油代高騰、円安などの影響で、どの航空会社でもチケットが(過去に比べて)非常に高かった(ちなみに、カタール航空は例外的に燃油・サーチャージを徴収しない)。私は東工大での選考が終わってから航空券を調べて予想を超える価格に驚いてしまったが、応募時点で調べておくべきだと思う。サマースクール中の費用は主催者が ETH から予算を取ってくださったため、(追加でビールやランドリーサービスなどを購入しない限りは)かからなかった。東工大から 8 万円の奨学金(給付)をいただいた。

⑥ 留学先での住居

寮の有無、申し込み方法、ルームメイト、その他。

ETH のキャンパスがあるチューリッヒから電車とバスで 1 時間強の Filzbach という場所にある、「Seminarhotel Lihn」といういわゆる合宿所のような宿泊施設(とてもきれい)で開催された。ほとんどの参加者は 2 人か 3 人の相部屋(男女別)だったが、私は運良く1 人部屋になった。部屋の割り振りは主催者が事前に行うが、どうしても 1 人部屋でなければならない理由がある人は事前に申告することができた(私は申告していないが、おそらく申告した人がいないか少なかったのでたまたま 1 人部

屋をもらえた)。部屋にシンク・鏡・ドライヤーはあったが、シャワー・トイレは共用だった。ちなみに、フロアには男女共用のバスルームと男女別のバスルームがあったが、「男性」「女性」とドイツ語のみで書いてあったせいか男子も女子バスルームを使っている形跡があった。朝食・昼食・夕食はレストランで2時間のビュッフェ(好きな時に行ってよい)であり、味・栄養バランスともに充実していた。

⑦ 留学先での語学状況

例えば、授業、研究には〇〇語が必須だが、生活は〇〇語を利用。留学前の TOEFL 等語学試験は、〇〇だったが、十分であった(最初の数週間は苦労した)など。

プログラムは全て英語で行われた。英語が第一言語だという人は私が把握している中ではいなかったと思うが、参加者・主催者の英語のレベルは高かった。講義中は手を挙げなければ聞いているだけであり、グループワークも東工大の授業で行われるものと大きくは変わらない。しかし、期間が短い中で参加者同士の交流がプログラムの最も重要で充実した点だとも言え、(英語力にかかわらず)コミュニケーションを楽しめなければ辛いと思う。毎日三度の食事・二度のコーヒーブレイク・夕食後などの時間は基本的にレストランに集まって会話している人が多かった。とはいえ、少なくとも今回はフレンドリーで親切な参加者ばかりで、どのテーブルにいつ座ってもすぐに会話に入れるとても良い雰囲気があった。

私自身は子どもの頃アメリカで育ったため英語の問題はなかったが、参加者・主催者にはいくつもの 言語を話せる人が多く、自分もドイツ語やフランス語を勉強したいと刺激を受けた。

スイスの中でもチューリッヒ周辺ではドイツ語が使用されているが、話す必要があるような人には基本的に英語が通じるし、そうでなくても特に問題はなかった。ちなみに、ドイツ人の参加者が、同じドイツ語でもホテルのスタッフ同士で話しているときはあまり聞き取れないほど訛りが異なると言っていた。

⑧ 単位認定(互換)

留学中に取得した単位の認定(互換)を東工大で行ったか(行う予定か)。

該当なし

⑨ 留学経験を今後、どのように活かしたいか

今回、私はヨーロッパに来るのが初めてで、子どもの頃に過ごしたアメリカとの多くの違いを実感した。博士課程や、それが叶わなかったとしても何らかの形でぜひヨーロッパに戻ってきたいと強く感じた。その際には、環境政策や企業による環境への取り組み、中でもより持続可能なサプライチェーンに携わる仕事をしたい。その意欲が強くなったことが、今回の経験の最も重要な収穫の一つだと思う。グループワークでは、全員と仲良くなったが、ETHの博士課程に在籍している女性と特に仲良くなった。私と彼女は話がよく合い、結局グループワークの内容を中心的に進めることになったが、彼女から多くを学んだ。例えば、私は「その意見は論理的にちょっとおかしいな」「その作業はこれまで決定したことと照らして不要だな」などと思っても、そこまで重要な点でなければ、場の空気を乱すくらいなら

と思い「まあいいよ」と言ってしまうときがある。そんなとき、彼女は必ず「それはさっきまで話していた

ことと違うと思う」「それは絶対に時間の無駄だけど本当にいいの?」と、空気を険悪にさせることなくはっきりと主張していた。今後もグループワークやそれに似た活動をすることは必ずあるが、私も彼女の話し方や態度を真似したいと思った。また、彼女はたまたま私たちのグループに割り当てられたトピックに近い内容(コーヒー・ココアの生産)をちょうど修士・博士課程で研究していた。そのため、トピックについて多くの知識や意見があり、新しい視点を提供してくれた。例えば、既存の農作物の認証制度には植民地主義的な性質があるという点や、「このような仕組みは WTO のルールの制約の中で実現可能か?」「そもそもWTOは神や物理法則ではない。倫理上・原則上、本来はこのようであるべきである」という点などに関する議論は非常に興味深く楽しかった。そのような面白い議論ができたことで、自分の知的好奇心や研究に対する意欲が刺激され、帰国してからも勉強を頑張ろうと改めて決心した。

⑩ 留学先で困ったこと(もしあれば)

事前準備の段階で、主催者が参加者全員(40名)のメールアドレスを一気に宛先にしてメールを送った。私は普段東工大メールを Gmail に転送して使用しているが、東工大メールサーバーが主催者からのメールを迷惑メールだと勘違いしたようで、Gmail に転送されず、最初の重要な連絡に気づかなかった。予め東工大メールに加えて Gmail 等を第二の連絡先として登録する(メーリングリストに入れる)ようお願いしておくとよいと思う。

① 留学を希望する後輩へアドバイス

せっかくの機会を最大限に生かすためには、積極的に挨拶をしたり話しかけたりすることが重要だと思う。それと欧米などでは、例えば廊下ですれ違ったときやエレベーターに乗り合わせたときのようなタイミング(時と場合によるが)で知らない人でも目を合わせてニコッとすることが重要だと思う。

グループワークでは、アドバイザーから指示があると思うがなるべく 1 つのソリューションに絞って可能な限り具体的な提案をすることが高く評価される(といっても、成績や順位が付けられるわけではない)。

持って行くと良いもの(特に同じホテル「Seminarhotel Lihn」の場合)

- ボディーソープ・シャンプー・コンディショナー・洗顔料
 - ▶ ホテルにはシャンプーとボディーソープ兼用の液体石鹸のボトルが 1 本あるだけなので、それでは不十分な人は持参する必要がある。

● 水筒かコップ

▶ 講義中や食事中は好きなだけ水を飲めるが、ペットボトルが配布されるわけではないので、夜に部屋にいる時の水分補給に若干困った(レストランからコップを借りていた)。水道水が飲めるので水はあるが、自分の容器があると便利だと思う。ちなみに、乾燥していて普段より喉が渇いた。

● ビーチサンダル

シャワーのドアがきちんと閉まり切らなかった。それを鑑みても「どうして」というくらいバスルームの床が濡れていたので、ビーチサンダルがあって良かった。

- 歯ブラシ
 - アメニティに含まれない。
- ハイキングの出来そうな靴と服
 - ▶ 晴れた日の夕方には 2 回ハイキングが行われた。私は(お腹が空いていて)参加しなかったが、参加した人のうち何人もがちゃんとした靴があればよかったと話していた。
- ハンドクリーム
 - ▶ 乾燥する。
- 「SBB Mobile」アプリ
 - ▶ これと Google Map があれば公共交通機関での移動に関して困ることはないと思う。









報告事項

① 留学先(参加プログラムおよび受入れ機関)の概略

Overview of the program and the host university/organization abroad

The IDEA League summer school 2022 was hosted by the ETH Zurich at the Seminarhotel Lihn. This hotel is located in the Flizbach. I need to spend 2 hours on the train to travel there from Zurich airport. The main topic of this summer school was 'Greening and Governing Global Supply Chains'.



Figure 1: the train from Zurich Airport to the Lihn hotel

The detail of this summer school is descried in the table below:

Day	Date	Schedule	Topic
Day 0	04 th September	Evening	Arrival, Welcome, Grouping, Dinner
Day 1 05 th Septembe	OFth Contombor	Morning	Earth's carrying capacity and ecological overshoot
	оз зеріеніреі	Afternoon	Global resource flows, their measurement, impacts and drivers of changes
Day 2 06 th September	Octh Contombor	Morning	Policy challenges and potential solutions
	Afternoon	Student team work	
David O7th	07th Contombor	Morning	Mining, resource extraction
Day 3	07 th September	Afternoon	Student team work
Day 4	08 th September	Morning	Energy Policy
		Afternoon	Food system
Day 5	09 th September	Morning	Student presentations and wrap-up

② 留学前の準備

Pre-departure preparation

留学情報の入手方法、専門分野・語学の準備方法、留学先の研究室に所属した場合は、 留学先大学の指導教員との準備、ビザ取得方法、住居の探し方など。

How did you obtain information relevant to your study abroad, such as how to acquire a visa, how to find accommodation, how to find a host supervisor at the university, how to prepare for study abroad in terms of field of study, language study. etc.?

I received the information about this summer school by email and I was interested in this program. Because the topic of this summer school is 'Greening and Governing Global Supply Chains' which is partly related to my research, so I believed that was a good chance to expand my knowledge, exchange ideas and get more connections for my academic network. Therefore, I decided to apply to this program. After that, I was interviewed by some professors of Tokyo Tech and was selected as a participant in this program.

The next step was applying visa to enter Switzerland. I submitted my documents directly to the Switzerland embassy. The embassy also required the ETH Zurich send the invitation letter directly to them to prove the purpose of my trip and I received my visa 2 weeks later.

One week before the summer school, the ETH Zurich provided materials about the topics of the summer school to help the participants understand the theme. Because there were a lot of students from different backgrounds, these materials were useful

to catch up with the ideas clearly in the summer school. They also sent the survey (to ask about the flight information, arrival time, food allergy notes, etc.), the instruction and the voucher to travel from the airport to the hotel.

③ 留学中の勉学・研究

Academic activities during study abroad: courses, research, etc.

履修した授業, 研究内容等についての感想。留学中に行った課外活動(観光やスポーツ等)がある場合は、併せて記入してください。

Describe your classes and research (if relevant) abroad. If you participated in any extracurricular activities, such as sightseeing, sports, etc., please describe those experiences as well.

There were two main activities in summer school. The first was seminars, the professors presented some topics related to 'Greening and Governing Global Supply Chains', including: global resources, mining, resource extraction, and food system. The professors were very dedicated to sharing knowledge related to the topic they presented, they also gave the opportunity to ask questions and exchange ideas with the students. Through these presentations, I gained more knowledge about the role and impact of some important supply chains on the environment, people and society.



Figure 2: Seminar and discussion with Dr. Mario Krauser

The second activity was the group working of students, we were divided into small groups with 4-5 members and selected a topic to discuss. Our topic was: "How to address corporate due diligence as a company", the topic was offered on the first day of summer school. Then we had time to work together and presented on the last day of summer school.

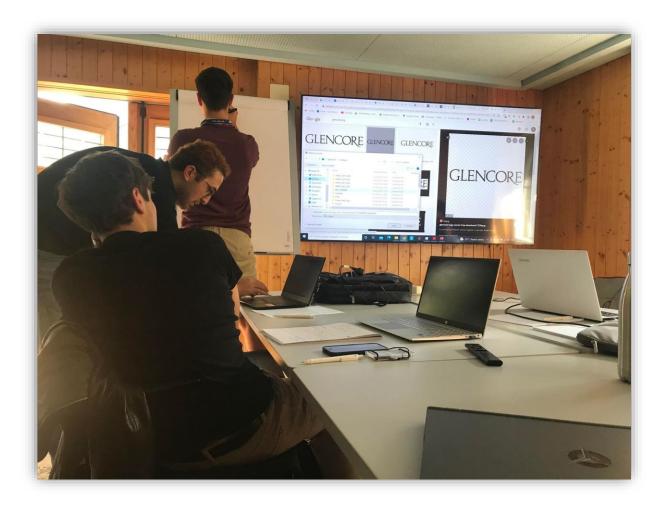


Figure 3: Group work

In addition to the time for seminars and group work, we spent the rest of our time organizing group activities such as trekking, visiting some beautiful places around town and swimming in the lakes near the hotel. It was an exciting time for me to make friends with many talented students from all over the world and share interesting moments together.



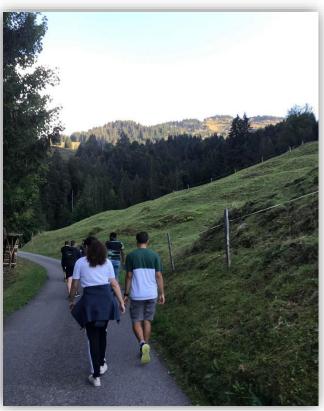


Figure 4: Outdoor activities

④ 留学を終えて、自分自身の成長を実感したエピソード

Episode in which you experienced personal growth or development

他国の学生等との交流、海外における勉学・研究等の学校生活や日常生活を経験して、 自身の成長を実感したことと思います。留学前に立てていた目標に対する達成度や苦労 話など、何でも結構ですので、自身の成長を実感した中で一番記憶に残っているエピソー ドを記入して下さい。

Indicate the episode in which you most strongly felt your personal growth, i.e., through study, research, cross-cultural experiences, activities, daily life and so on.

Although the duration of the summer school was not long, I think I have learned a lot through this program. I was provided with knowledge about 'Greening and Governing Global Supply Chains' in various aspects through seminars and the activities of my group. In addition, I also experienced the European style of teaching classes. In my opinion, students in Europe are dynamic and do not hesitate to ask their professors as the Asian students. Besides knowledge, I also had the opportunity to meet and make friend with many talented students from famous European universities and shared memorable moment with them.

⑤ 留学費用

Study abroad expenses

渡航費、生活費、住居費、保険料、奨学金の有無など。

Indicate travel expenses, living expenses, accommodation fees, insurance fees, and whether or not you received a scholarship, etc.

The participants needed to pay for their flight tickets. Because of the impact of the pandemic and the complicated situation in Europe, the airfare at the time I attended the program was quite high. Specifically, I had to pay about 220 000 yen for the flight tickets. In addition, the participants also needed to purchase travel insurance and pay other expenses while in Switzerland.

The cost of the hotel and food was supported by ETH, so I hardly paid any money for the time I attend summer school at the hotel.



Figure 5: Food, drink, and view in the hotel

Tokyo Tech partially subsidizes the costs of the participants of this program, however, in my case, I received the MEXT scholarship, which means I cannot receive any further support from Tokyo Tech.

⑥ 留学先での住居

Accommodation at the destination

寮の有無、申し込み方法、ルームメイト、その他。

Indicate whether or not your host university had a dormitory, the application process,

reflections on your roommates, etc..

I shared my room with 4 roommates, the room was nice, and I especially liked the view from my room balcony. We are not allowed to choose roommates, we were all arranged by host university. I think this was also the intention of the host university because none of us have the same nationality, so this was a good opportunity for us to share interesting things about our country with others.

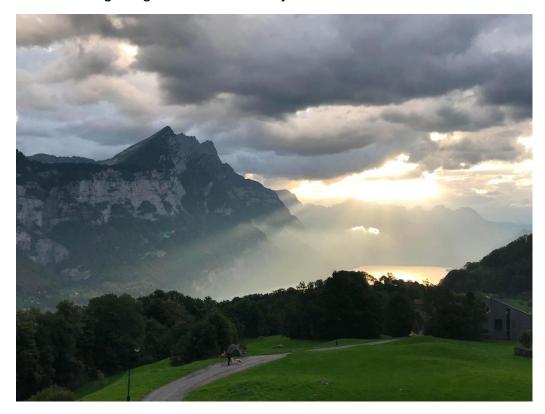


Figure 6: The view from my room balcony

⑦ 留学先での語学状況

Language at the destination

例えば、授業、研究には〇〇語が必須だが、生活は〇〇語を利用。留学前の TOEFL 等語学試験は、〇〇だったが、十分であった(最初の数週間は苦労した)など。

Indicate how you experienced the language environment at your destination, i.e., the language required for research activities, language(s) used in daily life, etc. and if you felt your language skills were sufficient.

The language was not a big barrier for me in Switzerland. Although the main language here is German, most people can communicate fluently in English. Although I had to move from the airport to the hotel by myself, I got to the hotel quite easily. In general, I did not have any language problems in Switzerland.

⑧ 単位認定(互換)

Recognition of credits which you took at the university

留学中に取得した単位の認定(互換)を東工大で行ったか(行う予定か)。

Indicate if you were able to / are planning to transfer credits you earned during study abroad.

I do not plan to transfer credits

⑨ 留学経験を今後、どのように活かしたいか

How do you make use of your study abroad experience in your future life?

I feel like I learned a lot from school this summer. I have a general view of 'Greening and Governing Global Supply Chains', global resources, mining, resource extraction, and food system. In addition, I think I should also learn from European students how they study, especially how they express opinions and ask questions to professors.

(10) 留学先で困ったこと(もしあれば)

Indicate trouble or issues (if any) you experienced during study abroad None

① 留学を希望する後輩ヘアドバイス

Advice to other students

I think any trip is an opportunity to learn, expand knowledge, and network. In addition, it is also an opportunity to experience different cultures around the world. Therefore, I think that whenever there is an opportunity, students should participate in activities like this, because this is an opportunity to learn something useful for research and for our life.



Figure 7: Students, professors, and staffs

IDEA League Summer School
(ETH Zurich)
Student reports (2019)

IDEA League Summer School- ETH Zurich, 2019

IDEA League Summer School (ETH Zurich)

M1 ******

1. Preparations before departure

For me, it costed a lot of time to prepare for the journey, including luggage, insurance, visa, Internet connection in Switzerland and itinerary. Because it was my first time to visit Switzerland, I searched on the Internet to make a list and asked for advice from the student who participated the same program last year. And it has been proven that with more preparations, it would be easier to stay abroad. For example, supermarkets in Zurich are located densely on the center district and almost every shop is closed before 6 pm, when the sun is still glowing on the sky. Considering the much higher price of any services and commodities, if prepared well, less problems could be avoided.

2. Arrival of Zurich

It was well organized by ETH Zurich that all the information about the program was disclosed for us. Below was the schedule and details of events, meeting point were sent to us on former Friday before program week.

July 2019	Monday 15 th	Tuesday 16 th	Wednesday 17 th	Thursday 18 th	Friday 19 th
10-13		History of scientific Infrastructures - Sciences and the Internet	Excursion and ETH LabWalks	Workshop Open Science	Presentations of group work and final discussion
14-16	Arrival at ETH Zürich or at Seminarhotel Lihn, Filzbach	- The Politics of Computing Centers	Free afternoon in Zürich	Workshop Reproducibility	
16-18	Welcome			Group work	
19	Dinner	Dinner		Gala Dinner	

Organizers led us to the venue of program, a seminar hotel in Filzbach. Even though we were guided across the convenient Swiss public transport, it was indispensable to set down the full name of station and which station to transit.



Sunset view from the seminar hotel, Filzbach

A friendly and relaxed atmosphere was created in the welcome party and following activities organized by us students. Thanks to the late sunset time in Swiss around 10p.m., we had abundant time to trip around and enjoy the landscape in Filzbach.



First day in Filzbach

3. Lectures in the program

Lectures included as following,

- > Daniela Zetti: Networks;
- ➤ David Gugerli, Ricky Wichum: The Policy of Computing Centers;
- > Gabriele Gramelsberger: A Global Modelling Infrastructure of Climate Science;

- Andreas Kaminski: Data Reproducibility in Climate Science;
- Catharina Landström: Participatory Modelling in Water Risk Management;
- ➤ Dawid Kasprowicz: Infrastructure for Collaborative Coding.



Given by lectures from various backgrounds in ETH Zurich and RWTH, it was a challenge for us to understand the basic concepts of different fields in a short span of time, along with the application and utilization of infrastructures in their research. Besides, instead of teaching us how to use them, they talked more on what the infrastructures are, dating from the history of them, and how they would develop further in decades of years.

Since I started learning engineering, I have never recognized the philosophy aspects of science and technology. What I was taught was how to operate on them and how to realize something by this method. We treated them as a tool, making use of their benefits in daily research, but ignored their origin and how they were given birth in the world. Without such recognition, I would never imagine what infrastructures would become in the future. Thanks to the lectures, I learnt that they were not only maintaining our world but also creating something brand-new as an invisible promoter.

4. Outgoings in ETH Zurich campus and city of Zurich

Four groups were divided for labwalks, including robotics, environmental sciences, digital curation and civil engineering. In campus of Hönggerberg, my group visited the department of civil engineering and learned how they adopted deep learning in scientific research work and future prediction in industrial production.



City tour in a group



Group boat trip over Lake Zurich

Guided by organizers, we enjoyed a good time in the city of Zurich. The excursion supported by the free pass in Zurich zone enabled us to have a sight on lake Zurich, feeling the classic-modern combination of the city.

5. Final Presentation



Our groups visualization

The program ended up with the group presentation on the topic named, visualization of science and infrastructures. Students from different background took on their own understandings of the relationship. It was a fantastic experience to converge ideas and co-work with European students.

6. Conclusion



All the staffs and students

Even though nearly every student has completely different major and research on subjects with none of link between each other. We gathered here to share our opinions on something widely existing in our research and our life. From the contents of the program, I acquired a broad spectrum of knowledge within condensed period and witnessed how it displays in institutions, which will act practically in my future work in the field of science and technology. What's more, outside the arrangements, we had abundant time to talk with each other, exchanging our opinions in scientific discovery and advancement, sharing our experience living in different countries, hearing advice from the seniors on our career and personal development. Also, the daily hiking and walking physically practiced me a lot. Finally, I would like to appreciate Tokyo Tech offering me the precious opportunity to experience in such an inspiring overseas program and always supporting my participation during the whole process.

IDEA League Summer School (ETH Zurich) Student reports (2018) IDEA League Summer School (ETH Zurich)
School of Environment and Society
Department of Transdisciplinary Science and Engineering
D3 V.K.Y.B.



Figure 1. The view of from the seminar hotel

On September 2nd – 7th, 2018, I had an opportunity to join a summer school program organized by IDEA League - ETH-Zurich and was held at Seminar hotel Lihn in Filzhbach- Switzerland. This accommodation is located 75 km from Zurich, which was quite a location with a beautiful view of the lake and mountains that made all participants more focus and relax. During a week of the program, the host university provides good meals as

wells. By reading all documents, I could get the overview of the summer school content and prepare some questions that I would like to ask during the program. This preparation helped me so much, so when I was in the class I could follow what the keynote speakers talking about.

Since this program was initiated by IDEA league, a consortium comprised TU Delft-ETH Zurich- RWTH Aachen - Chalmers University - Politenico di Milano, therefore most of the participants are the student from member European universities. Some students outside from IDEA league member list also participated in this program, such as Oxford University, Cornell University, Tokyo Institute of Technology, Hong Kong University of Science and Technology, Tsinghua University, Korea Advance Institute of Science and Technology, and Nanyang Technological University that made this program more diverse.



Figure 2. All participants of IDEA league - ETH Zurich summer school 2018

The program covers a series of topic related to environmental footprint topic such as measurement of environmental footprints, green economy initiatives, the relation between trade and the environment, changing paradigms of green business, and pro-environmental behavior. All the participants were divided into groups, and at the end of the program each group need to present their own group work.

Preparation before the Summer School

At first, I found the information about this program from a leaflet in Campus and the topic of the summer school was gained my interest to apply. I had interest in this summer school because by participating in this program will give me a valuable opportunity for making new networks with many scholars and broadening the horizon of my knowledge of environmental footprint from various disciplines primarily related to the strategies from all stakeholders for reducing the environmental burdens. Also, the topic of this program is related to my current research interest which focusing on food, agriculture, and poverty issues. Since, food is also one of the significant environmental footprint drivers due to changes in the diet, growing population, global trades, and economic development. Therefore, the importance of food sustainability has become a critical issue in societies because the environment supports people` lives in providing food and is therefore vital for human well-being.

During the screening process, I collected the materials about the program theme, so I had enough preparation during the interview. After that, I was selected as one of the students represent Tokyo Tech in that program. Prior to my departure, I booked the flight ticket and prepared some documents such as visa, travel insurance, and internal document for the university. I had to arrange my flight to Zurich before visa application. As for the visa, the process is quite easy and I got the visa within 1 week after the submission. Regarding, the internal documents and travel insurance documents preparation I really appreciate the support from Ms. Sai and colleagues.

Cost of Study Abroad

We got support stipend from Tokyo Tech ¥ 80,000, and the rest of the expenses such as insurance and visa application fee are covered by our budget. In this program, the accommodation such as hotel and transportation from airport to the venue were covered by local host university.

Activities during the program

All participants were arrived 2nd of September and had dinner together at the seminar hotel Lihn. The class were started on September 3, and below is the program outline.

F	1			
Day 1 (Sept 3)	Day 2 (Sept 4)	Day 3 (Sept 5)	Day 4 (Sept 6)	Day 5 (Sept 7)
9:00 – 9:30	9:00 – 12:00	9:00 -11:00	9:00 – 10:30	9:00 – 9:30
Thomas	Stefan and	David Bresch:	Thomas	
Bernauer:	Bernhard	how do firms	Bernauer:	
Welcome and	Wehrli: Nuts and	and industries	Measuring and	
Introduction to	bolts of LCA and	consider and	explaining	
the topic of	Measurement of	manage	environmental	
summer school	EF	environmental	attitudes and	
		risk	behavior of	
			consumer and	
			citizens	
9:30 -12:00	13:30 -16:00	11:00 -14:30,	10:30 -12:30	
		14:30 -16:00		Group
Mathis	Thomas		Linda Steg : What	presentation
Wackernagel:	Bernauer:	Joachim	can be done to	and closing of
Measuring and	Linkages	Scholderer:	encourage	the program
assessing	between	Corporate	pro-environmental	
environmental	international	environment	behavior	
footprints	trade and the	startegies		
·	environment			
		Bjarne Steffen:		
		Insights from the		
		energy sector		
14:00 – 17:00	16:00 – 18:00	16:00 – 18:00	13:30 – 19:00	
Sibyl Anwander:	Group work	Group work	Group work	
Green economy	facilitated by	facilitated by	facilitated by ISTP	
initiatives	ISTP doctoral	ISTP doctoral	doctoral student	
	student	student		
	I	l .	l .	l

In the class, they encourage all participants to be actively answered and discuss some problems that given by each lecturer. I really enjoyed this session so much, because we were able to brainstorm our opinion and came up with some answers that based on each people background and knowledge. Sometimes we still continue to discussed and share our thoughts during lunch or coffee break. Moreover, in some sessions, I could explain about what was the current environmental policies situation both in Indonesia and Japan.





Figure 3. Problem solving discussion

Figure 4. Lunch Break

For the group project, each group should choose one interest case that has been provided by the program, and my group chooses a topic that related to NGO. In this project, we played the role as a politically active NGO based in an European country. Two of our organization's most important goals are the reduction of poverty and at the same time environmental conservation. It is a priori unclear under what conditions these goals are substitutes or complements. In particular, it is unclear how large European companies with operations in developing countries (e.g. extractive industry) influence that dichotomy. Develop a strategy for your NGO's political activity which would deploy our resources in a way that would aim to make the two goals complementary.







Figure 6. Group Presentation

On the last day of the program, my group presented our project. We conclude that poverty alleviation and environmental conservation should not substitute each other but indeed should coexist. There are some pathways to alleviate the poverty issue such as rural electrification, food security, clean water, health and diseases, and education. Since people who live under the poverty in rural area are usually very dependent on natural resource in daily life, i.e. 50-89% of their income comes from nature ecosystem, therefore we proposed some strategies that can make both poverty alleviation and environmental conservation coexist especially in rural area cases, such as ownership and operation of natural resource by local community and a project that can allow those people get direct cashflow immediately, and trained and encourage the poor to do a local green business entrepreneur. In order to attain the project goal, quantitative indicator of poverty (e.g. income), and environmental condition (e.g Eco-footprint or level of indoor air pollution) measured before, during, and after project. The time frame of the project should clearly define in the beginning and external influences effect (e.g. a country economic or political condition) which we cannot control should also take into consideration in the evaluation matrix.

Conclusion

Since my research topic about food and poverty issue, therefore I did not find any difficulties to connected between summer school topic and my research. This kind of program allowed all participant to explore and share their knowledge with the opportunity to stimulate a new way approach to solve a problem and learn from each other. Even though the duration of this summer school is very limited, I could expand the horizon of my knowledge especially from the political point of view of environmental policies. Through this summer school, I had an opportunity to meet and connect with excellent students from different countries, intercultural experience, an opportunity to work with scholars from different disciplines and backgrounds.

All in all, I would like to say that this kind of program will challenge us to be more confident in an international forum, actively speak up, and listen to other people point of view. This experience provides us with a different perspective and gains new inspirations directly and indirectly to our research and career in the future. I hope in the upcoming event, more students from Tokodai will apply for this opportunity.

① Description of your study abroad destination (including the name of the program in which you participated and the institution that hosted you and program schedule.)

Summer school was held in Seminarhotel Lihn in Filzbach, Switzerland by ETH Zürich with topic "Assessing and Reducing Society's Environmental Footprint" from 2-7 September.

- Day 0, 2 Sept 2018: Arrival of participants and dinner together
- Day 1, 3 Sept 2018, starting at 9:00: Measuring and assessing environmental footprints
- Day 2, 4 Sept 2018: Policy challenges
- Day 3, 5 Sept 2018: Firms and Industries
- Day 4, 6 Sept 2018: Consumers and citizens
- Day 5, 7 Sept 2018, ending at 13:00: Presentation of student project results The detailed schedule is on different paper.

2 Preparations before your study abroad

This could include explanation of the method(s) you used to collect information about your study abroad, any preparatory language study or research you did, how you obtained a visa, how you searched for a place to live overseas, etc. If you were affiliated with a lab overseas, please mention any preparations or communications you made regarding your overseas research advisor.

I found about this program information from Tokyo tech website because I wanted to study abroad. I was interested in this summer school because of the theme. My research is related to energy and environment and in the future, I also planning to do my research for better environment. To reach my purpose, I need to understand the environment exact problem and the countermeasure which is possible to be conducted.

This summer school was mainly about environmental footprints and problems from industry, politic and economy point of view. The host university gave us readings before the summer school was held to give us understanding about the topic which would be discussed. My major is engineering and is not related to politic and economy, thus it was quite hard to understand all the topics. But, thanks to the readings I could understand better about the topics before the summer school.

I obtained the visa by applying directly to Switzerland embassy and can be obtained smoothly because I also presented invitation from ETH Zürich which I requested after the announcement of participation result from ETH Zürich. The visa was sent to my address 2 weeks after applying.

Staying place and food was provided by host university. We only needed to state if we have food allergy etc. For transportation, I should search the flight go and back by myself and transportation between airport to the event place. They provided the ticket voucher code for transportation from Zürich to Filzbach.

③ Impressions of activities during your study abroad Please describe your impressions of any special activities you did during your time abroad.

The summer school was interesting and fun. I am happy to listen to inspirational speakers. The speakers were not only ordinary professors, but also person from government. I could have new friends from different backgrounds who had big enthusiasm in the program. The program also gave my new experience to have western-style lecture which more loose, fun and more interactive than eastern-style lecture. Before the program, I did not know about environmental footprints and problems from industry, politic and economy point of view. By participating in this program, I could broaden my knowledge.

The final presentation project was divided into groups and different topics. It was really interesting because every group had members from different university. In the group, I could exchange my opinion with others and also know the differences of culture and country situation. My group topic was "developing an intervention program to motivate households to reduce their environmental footprint, as to limit climate change from policy-maker point of view". At first, I was afraid to state mt opinion and suggestion because in Japan there is only few discussions in the classes and most of the discussions are boring, but after I tried to speak up, I realized that discussion could be so much fun.

Unfortunately, the time outside lecture and discussion was too short. I did not have many times to interact with other students. Our time for interaction and exchanging our culture and mind only in the meal time.

An episode in which you noticed personal growth since you completed the study abroad

Since returning to campus, have you had any instances in which you experienced a sense of how much you had grown through your experiences interacting with students from other countries and studying, doing research or experiencing daily life abroad? Looking at the goals you set for yourself in participating in the study abroad program and considering your successes and difficulties abroad, please share the most memorable episode in which you felt a sense of personal growth.

As I stated in the point before, I learned many things beside academic in this program. I learned about interactive lecture which was more discussion-like, less sleepy and less boring. The group discussion improved my confidence to speak my opinion, my communication skill and realized that discussion could be so much fun. In this program, I got many new friends from various backgrounds.

⑤ Cost of study abroad

Transportation expenses, program participation fees, living expenses, rent or rooming fees, insurance, scholarships, etc.

Transport from Zürich to Filzbach and Fizbach to Zürich were provided by the host. I only needed to buy flight tickets. I bought the cheapest flight 2 months before departure using Thai airways for JPY 113,360. Meals and stay were also provided. For insurance, I applied for Plan D from AIG General Insurance Company,Ltd which informations are provided by Tokyo tech for 15 days (summer school and extended stay) and paid for JPY 7,868. I also paid for JPY 7,000 for visa application. Tokyo tech gave me stipend JPY 80,000.

6 Your living arrangements during the study abroad

Type of accommodation (dormitory, homestay, etc.), method of application, roommate(s), etc.

I stayed at Seminarhotel Lihn which was provided by the host. Roommates were arranged by the host.

① Language study during the study abroad

For example, mention languages studied or used in daily or academic life. If you took TOEFL or another exam before the program, what was your score, and was your proficiency sufficient to participate in the program?

The program was held in English. My TOEIC score is 990. I also took TOEFL class. Regardless with my TOEIC score, sometimes I felt difficult to understand the lecture because the lecture topics were not my field and I am not a native speaker.

8 Academic credits

(No academic credits are available through the ASPIRE Programs. Please omit this section.)

9 How you want to utilize the experience(s) from now on

Even though I do not use my knowledge directly to my research, it is still important for my future. I understand environmental footprints and problems from industry, politic and economy point of view. So, when I am thinking to implement my "technical" research for society, I should consider from industry, politic and economy point of view.

M Any trouble or issues you faced abroad and how you solved the problem

There was no trouble during study abroad.

(1) Any advice for students who wish to study abroad

What I found from study abroad was not only academic things but also social, skill, culture etc. So, even though I stated that I find some difficulties to understand the topics regardless of my TOEIC score, I think it is good to challenge something new. You do not need to be afraid to try even though your language proficiency is not good. Sometimes we should go from our comfort zone to be success. I believe this experience will be really useful in the future.

IDEA league Summer School "Assessing and Reducing Society's Environmental Footprint" – ETH Zürich, 2-7 September 2018

	Topic	Program
Day 0:	Arrival of participants and	Dinner at 19:00
2 Sept 2018	dinner	
Day 1: 3 Sept 2018	Measuring and assessing environmental footprints, Green Economy initiatives	9:00-9:30: Thomas Bernauer: Welcome and introduction to the topic of the summer school
		9:30–10:30, and 10:45-12:00: Mathis Wackernagel: overview of the EF concept, global comparisons of countries and sectors, relevance of the EF concept for environmental policy-making
		10:30-10:45 Coffee pause
		12:00–12:30: Students form groups and discuss first ideas for a project, supported by ISTP doctoral students
		12:30–14:00: Lunch
		14:00–15:30, and 15:45-17:00: Sibyl Anwander: Green economy initiatives, insights from Switzerland
		15:30-15:45 Coffee pause
		19:00 Dinner
4 Sept 2018 environmental footprints linkages between	linkages between international trade and the	9:00–9:30 Mathis Wackernagel: overview of the EF concept, global comparisons of countries and sectors, relevance of the EF concept for environmental policy-making
	environment	9:30-10:45, and 11:00-12:45: Stefan Pfister and Bernhard Wehrli: Nuts and bolts of Life Cycle Assessment and measurement of EF
		10:45-11:00 Coffee pause
		12:45–14:00: Lunch
		14:00-15:15, and 15:30-16:15: Thomas Bernauer: Linkages between international trade and the environment
		15:15-15:30 Coffee pause
		16:15–18:00: Students work in groups,

	supported by ISTP doctoral students
	19:00 Dinner
Firms and industries	9:00–10:45: David Bresch: How do firms and industries consider and manage environmental risks?
	10:45-11:00 Coffe pause
	11:00–12:00, and
	13:30–14:30: Joachim Scholderer: Corporate environmental strategies
	12:00–13:30: Lunch
	14:30–16:00: Bjarne Steffen: Insights from the energy sector
	16:00-16:15 Coffee pause
	16:15–18:00: Students work in groups, supported by ISTP doctoral students
	19:00 Dinner
Consumers and citizens	9:00–10:30: Thomas Bernauer: measuring and explaining environmental attitudes and behavior of consumers and citizens
	10:30-10:45 Coffee pause
	10:45-12:30: Linda Steg: What can be done to encourage proenvironmental behavior
	12:30–13:30: Lunch
	13:30–16:15, and 16:30-19:00: Students work in groups, supported by ISTP doctoral students
	16:15–16:30 Coffee pause
	19:00 Dinner
Presentation of student projects	8:30–11:30: Students present their projects
	10:00-10:15 Coffee pause
	11:30-13:00: Wrap up–Summer School
	13:00-13:30: Lunch
	Consumers and citizens Presentation of student

Pictures



Lecture and discussion with Mathis Wackernagel



Walking after lecture



Lunch



Group work



Final presentation



Participants and Staffs