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_ <del>·</del>		April 1 – June 30, 2018

### **International Spring School 2018: Environmental Studies**

(Feb. 21 – Mar. 15, 2018)

By Yuki Okamoto, Program Assistant Professor, GSGES

This short-term program, "International Spring School for Environmental Studies", is designed to help participants understand and then deepen their understanding of environmental issues in our daily life (focusing this year on energy, food, and the societies of urban and rural areas) through both lecture courses and field studies involving active discussion among international participants. This program covers various techniques and knowledge of environmental science (environmental engineering, marine ecology, atmospheric chemistry, agronomy, and soil science) in the Kansai region of Japan.

In total, 21 graduate students (including 2 undergraduates) from 15 countries and 14 universities (including Kyoto Univ.) joined this program following a strict screening process. Twenty-eight lecturers from GSGES gave lectures about various research topics in Environmental Studies, both in the field and in the class room. In addition, guest Professor John WENGER, from University College Cork, gave a special seminar about Atmospheric Chemistry. The program involving both lectures and field visits went according to plan and included an active discussion on future energy use and nuclear energy. This was conducted from both the standpoint of evacuees from the Fukushima-daiichi power plant, and the standpoint of those promoting nuclear power plants. Also, the state of rural agricultural areas and their future was discussed, considering various perspectives such as the wise use and passing on of traditional knowledge, the declining number of specialists and successors with knowledge of rich natural resources, experiencing life in mountainous villages, and learning about the transition of agro-industry and changes in resource management.

The program was only provided in English, but participants helped each other to understand the content and this provided a valuable opportunity to mutually enhance communication skills. In addition, this program provided not only academic knowledge but also helped in the sharing of valuable experiences in communal work and facilitate discussions with local residents in rural areas, thereby improving participants' understanding of different societies.



Visiting a company to learn about biomass heat usage in agriculture

### Two workshops reexamine Indonesia's half-century Transmigration Scheme (March 2 & 9, 2018)

By Jane Singer, Associate Professor, GSGES

To relieve poverty and population pressures the Indonesia has promoted the resettlement of millions of residents from overcrowded Java and Bali to the main outlying islands of Sumatra, Kalimantan, Sulawesi and West Papua. In order to understand the Transmigration program's intergenerational impacts a team of researchers led by Associate Professor Jane Singer led a three-year JSPS-funded project investigating conditions at four transmigrant communities in two provinces in central Sumatra. The project findings were disseminated at two large-scale workshops held in March 2018.

The first workshop, the International Workshop on Rural Development and Transmigration Studies, was held in Bogor on March 2<sup>nd</sup>. The 120 participants included more than 40 officials from government ministries, students and faculty and NGO representatives. Notable findings include: 1. land

holdings and income were generally correlated with life satisfaction 2. income was highest in a village supported by a major oil palm plantation company included in the Transmigration scheme from the start, and 3. one community was adversely affected by a rapid influx of local migrants (the "boomtown" effect).

In general income rose as transmigrants shifted crop production to highly lucrative oil palm and rubber, and this allowed them to rebuild and expand their homes and infrastructure.

GSGES hosted another workshop, entitled Revisiting the Indonesian Transmigration Experience: Community Resilience and Long-term Outcomes, at Kyoto University on Friday, March 9, 2018. The project researchers included Prof. Kenji Okazaki, Associate Prof. Jane Singer, Assistant Prof. Chiho Ochiai and master's student Ricelli Laplace Resende

from GSGES; Prof. Masaaki Okamoto and Associate Prof. Kei Mizuno of the Center for Southeast Asian Studies at Kyoto University; Prof. Ernan Rustiadi and Dr. Andrea Emma Pravitasari of Bogor University of Agriculture; and Prof. Junaidi Chiniago of the University of Jambi. They were joined by a guest presenter from the Indonesian Ministry of Village, Rural Development and Transmigration, Dr. Saraswati Soegiharto, as well as a delegation of 22 visiting faculty and students from Jambi, Sumatra, that included local officials from the study sites. Said one local district official, "Listening to the academic presentations yielded new insights about my community that can help us govern more effectively." At the conclusion of the workshops participants stressed the need for expanding research to other areas of Indonesia to investigate further about contributory factors for successful governmentsponsored migration.



Bogor workshop presenters



GSGES welcomes Indonesian delegation to Kyoto workshop

# Implementation of agricultural studies by GSGES members using drones in Malawi: Joining "The first humanitarian drone testing corridor project arranged by the Government of Malawi and UNICEF" (March 21-27, 2018)

By Yuki Okamoto, Program Assistant Professor, GSGES

Members of the Graduate School of Global Environmental Studies, Program Assistant Professor Yuki Okamoto, Mr. Christopher McCarthy (Ph. D student), and Cornelius Chisambi (Master's student) joined "The first humanitarian drone testing corridor project arranged by the Government of Malawi and UNICEF" to implement agricultural studies using drones in Kasungu, Malawi, and conducted a "Workshop on Drone Studies, Involving Study Abroad at Kyoto University".

"The first humanitarian drone testing corridor project" is the first project anywhere that invites participants to carry out the testing of drones for humanitarian and educational purposes (see link available at the end of

the article).

Agricultural studies/field surveys using drones have been implemented in Kasungu, Malawi, where the drone testing corridor project was established for use as a target area. Dozens of local residents turned out to watch and participate in the drone testing. All flights were successfully completed without any safety issues.

The data obtained from this study will be analyzed in order to understand the characteristics of local farmland and vegetation patterns, including crops and soils. The results will be shared with local residents in the near future.

As part of the workshop on drone studies,

involving study abroad at Kyoto University, more than 20 students from Lilongwe University of Agriculture & Natural Resources received information on Kyoto University's Graduate School of Environmental Studies, and details of case studies about the applications of drones were also shared. In addition, participants had an opportunity to fly and operate a drone in a nearby recreation area. Students showed great interest in the drones and the workshop provided a valuable experience for everyone involved.

Furthermore, details of this drone research activity/article were also published in a local newspaper.

[Link] Malawi's premier daily newspaper, The Daily Times:

https://www.times.mw/from-kyoto-with-drones/

地球環境学堂に所属する岡本侑樹特定助教、同地球環境学舎に所属する学生、Christopher McCarthy (博士課程在学)、Cornelius Chisambi (修士課程在学)の3名が、マラウィ政府およびUNICEFが実施している First humanitarian drone testing corridor project へ参画し、農学分野の研究におけるドローンの現地での活用に向けて、現地のリロングェ農業自然資源大学の学生らを招い

たワークショップ Workshop on Drone Studies, study abroad in Kyoto University を開催しました。本プロジェクトは、ドローンを公の場で、人道・教育的な利用に限り試験的に活用できる世界初のプロジェクトであります(リンク下記)。

現地でのドローンの活用は、Drone testing corridor project が設定した Kasungu(マラウィ中西部)の農村において実施され、現地住民らが多数見守る中、安全に実施されました。本活動で得られたデータは、現地で栽培されている植物や農場の環境を理解するために活用され、解析されたデータは、現地に還元される予定です。

また、リロングェ農業自然資源大学の学生らを 招いたワークショップでは、京都大学の簡単な留 学フェア―の実施や、学堂が実施するドローンを 用いた研究の紹介、ドローンの操作体験などが行 われ、現地学生らにとっても非常に有意義な時間 を提供できました。

なお、本活動は、マラウィの現地メディア"The Malawi's Premier Daily, The Daily Times"に掲載されました。

#### 【リンク】

ユニセフ・マラウィ・ドローンコリドー: https://www.unicef.org/media/media\_94184.html The Malawi's Premier Daily, The Daily Times: https://www.times.mw/from-kyoto-with-drones/



Drone flight at the agricultural field

### Fifth Certificate Conferment Ceremony of the Educational Program for Studies on CoHHO (March 26, 2018)

By Natsuki Shimizu, Program-Specific Associate Professor, Educational and Research Unit for Studies on the Connectivity of Hills, Humans and Oceans (CoHHO)

The 5th certificate conferment ceremony of the Educational Program for Studies on the Connectivity of Hills, Humans and Oceans (CoHHO) was held on March 26, 2018. GSGES has collaborated with three other faculties in this educational program. Sixty-seven students received their certificate for passing the CoHHO program in the 2017 academic year and 208 students, in total, have now completed the CoHHO program since 2013.

2018 年 3 月 26 日に、京都大学旧演習林のラウンジにおいて、地球環境学堂・学舎が他の 3 部局と共同で運営する森里海連環学教育プログラムの 2017 年度(第 5 回)修了式を執り行いました。今年度は、9 月修了者 2 名を含めて、昨年度を上回る 67 名の履修生が修了し、この 5 年間の累計修了生は 208 名となりました。修了式には、大学関係者及び日本財団の出席のもと、43 名の

修了生が出席しました。

朝倉彰ユニット長から修了生に向けて式辞が述べられた後、各修了生に"Nature & Humanity Coordinator of CoHHO Program"と書かれた修了証が手渡されました。その後、縄田栄治・農学研究科長、日本財団の梅村岳大・海洋チームリーダーから修了生への祝辞が述べられました。また、修了生を代表して、京都大学一日本財団森里海連環学フェローでもある Percival Joseph Emile Honour さん(地球環境学舎修士課程 2 回生)の挨拶がありました。最後に出席者全員で記念写真を撮り、修了式は閉会となりました。



Ceremony participants

### 40th Shimadai - Juku "Groundwater of Kyoto" (March 27, 2018)

By Akira Yoshino, Associate Professor, GSGES

Shimadai-juku is an outreach program run by GSGES. On this occasion, we invited two presenters, Mr. Michihisa Suzuki, member of "Kappa-Kenkyukai" (a study group on water culture) and Mr. Toru Inui, Associate Professor of GSGES, to speak and discussed the physical structure of groundwater and the culture of well water use in Kyoto.

地球環境学堂は、京町屋・嶋臺さんを会場にお借りして、連続講話会を開いています。この嶋臺塾では、先端の地球環境学の成果を京ことばのような生活の言葉で練り直すことで、新たな力のある美意識や生活作法をさぐり、地域に広めることをめざしています。

今回は、京都の井戸をテーマに、地球環境学堂からは土木工学の乾徹准教授に、洛中からはカッパ研究会の鈴木さんにお話しいただきました。

乾さんからは、京都の足下を流れる水について解説してもらいました。京都盆地には、琵琶湖の水の7~8割ぐらいの水があって、それは均一に分布しているのではなく、基盤岩とその上に堆積している粘土や砂の層のあり様でだいぶ違うのだそうです。北の方の基盤は100~200メールぐらいの深さだそうですが、南の方は比叡山の高さと同じくらいの深さだそうです。そうした地形で京都の地下水の量も味も変わるし、逆に、地下水の動きで地盤沈下が起きるなど土地の姿も変わります。微妙なバランスで成り立っている京都の地下水ですから、それを守り利用する知恵を大事にしたいというお話でした。

また、鈴木さんからは、京都の名水についてお 話をいただきました。鈴木さんは、もともと京都 府の職員さんでしたが、とにかく京都の井戸がお好きで、当時から多くの水にまつわる著書をものされてきました。「井はほりかねの井 玉の井はしり井は逢坂なるがをかしきなり」と『枕草子』にあるように、京都には平安の頃から名水であるように、京都には平安の頃から名水であるように、京都にはではなく、のは、必ずしも水質がよいというだけではなく、からなが下れば、茶の湯や染め物に使われたと、かいは薬効など、様々です。京都は昔から、水を特別のものとして扱ってきました。その価値というであるとい方、水を特別のものとして扱ってきました。その価値という働価値とか労働価値とは違い、宗教や京都の水との付き合い方、水に対する価値観を再確認して、次世代に受け継ぐ必要性を訴えられました。

会場の方も、京都の水にはたいへんな関心があるようで、質問や意見が途絶えず、2時間という長さがとても短く感じた今回の嶋臺塾でした。



Lecture at the Shimadai Honjin Gallery

#### **Welcome Party 2018** (April 5, 2018)

By Kayo Ueda, Associate Professor, GSGES

On April 5, 2018, more than 100 new students, current students and faculty members attended a welcome party held in the Hokubu restaurant to mark the start of the 2018 academic year for the Graduate School of Global Environmental Studies. After the welcome speech by Professor Funakawa (Dean of GSGES), the new students introduced themselves to the other lab members seated on the chairs set up in a row. At the end of the party, Professor Fujii (Former Dean) called for "Ipponjime", a traditional Japanese closing ceremony, and all joined together in the ceremonial clap of hands. We all had a wonderful time.

2018 年 4 月 5 日に北部食堂にて、京都大学地球環境学堂の 2018 年度新入生歓迎会が開かれ 100 名以上が参加しました。舟川地球環境学堂長

からの挨拶のあとに、ステージに見立てて並べた 椅子の上に乗って、研究室ごとに新入生と他のメ ンバーが自己紹介をしました。歓迎会の終わりに は、藤井教授が音頭をとり、皆で一本締めをして お開きとなりました。



Welcome Party 2018

### Introduction of a Double Master's Degree Program involving Mahidol University and Kyoto University (April, 2018)

By Shuhei Tanaka, Associate Professor, GSGES

Since April 2017, GSGES has been running a new master's degree program, known as the Double Master's Degree Program, involving Mahidol University (Thailand) and Kyoto University. This program seeks to train/foster the development of specialists who will have in-depth knowledge of global and regional environments and the practical skills necessary to solve environmental problems approaching such topics from an international perspective. In this program, students who successfully complete approved course work overseas at the partner university will gain transfer credit[s] and earn two master's degrees in two different fields, one from Mahidol University and one from Kyoto University. Mahidol University confers a Master of Engineering (Environmental and Water Resources Engineering), and Kyoto University confers a Master of Global Environmental Studies.



The first student of double master's degree program between Mahidol University and Kyoto

Students from Kyoto University enroll in the Program from the 1st week of April. Students take coursework in the first semester at Kyoto University, and then stay at Mahidol University from the 2nd week of August for one year. Students are expected to prepare for the internship and start on their thesis proposals during their stay in Mahidol University. After completing one year of study at Mahidol University, students then come back to Kyoto University and engage in their research. The first students in this program are now studying at Mahidol University (August 2017 to August 2018).

Students from Mahidol University enroll in the Program from the 1st week of August. Students take coursework in the first semester at Mahidol University, and then stay at Kyoto University from the 2nd week of April for one year. Students are expected to prepare for the internship and start on their thesis proposals during their stay in Kyoto University. After completing one year of study at Kyoto University, students then come back to Mahidol University and engage in their research. This April, we received two students from Mahidol University. They are now attending lectures at GSGES along with the other GSGES master students. They will take part in the environmental management seminar in Tango in August, then they will focus on their master's thesis research topics at Kyoto University.

#### JSPS Core-to-Core Program launched for 2018-2019 (April, 2018)

By Izuru Saizen, Associate Professor, GSGES

As part of the framework of the JSPS Core-to-Core entitled "Construction Program of environmental basis through study practical approaches based on the Asia Platform", the "Seeds Funding Project" which promotes collaborative studies and supports young researchers in partnership universities, was launched for 2018-2019. Fourteen projects were approved and the researchers involved have now started their study activities.

JSPS 研究拠点形成事業「アジアプラットフォ ームによる地球環境学の実践的展開と学術研究 基盤の創成」の一環として若手研究者の研究能力 向上を目指した「シードファンディング」の公募 を行い、採択プロジェクトが決定しました。シー ドファンディングは、東南アジアの連携大学の若 手研究者の研究能力養成のみならず、京都大学と の連携強化、ならびに連携大学間の連携強化を図 るものです。連携大学の40歳未満の常勤若手研 究者が応募可能であり、環境研究一般を対象分野 とし、少なくとも1名の京都大学の教員を共同研 究者あるいはアドバイザーとする研究プロジェ クトを実施する義務を課しています。本年度は、 16件の応募があり、書類審査(2018年4月)と 遠隔面接による口頭試問(2018 年 5 月)を実施 し、14 件のプロジェクトが採択されました。採 択されたプロジェクトの詳細は以下の通りです。 採択された研究者は、共同研究者あるいはアドバ イザーとして研究を実施する京都大学教員の指 導を適宜仰ぎながら研究を遂行することになり ます。また、本年度は、マヒドン大学とハノイ理 工科大学との共同研究も実施されることとなり、 連携大学間での連携強化も期待されています。こ れらの成果は、地球環境学堂が主催する国際シン ポジウムでの研究発表が義務化もされており、研 究の設計から成果の発信に至るすべての工程に おいて、京都大学研究者の指導を仰ぐことができ、 若手研究者の研究能力の向上が期待できる取り 組みです。

	Young	Affiliation	Partner	Research title
	researcher		or Advisor	
1	Vo Thi Le	HUST	Minoru	PM2.5-bound PAHs in the Indoor
	На		YONED A	and Outdoor air in nursery School In Hanoi, Vietnam
2	Nguyen	HUST	Shigeo	Study on anaerobic co-digestion
	Pham		FUJII	of organic household waste and
	Hong Lien		Hidenor i	pig manure in a household-scale pig manure digester in Hanoi
			HARA	pig manure digester in ridio
	Le Thai	HUAF	DA Hitoshi	Assessing the Situation of
3	Le Thai Hung	поаг	SHINJO	Assessing the Situation of Natural Disasters and Local
	_			Adaptation during and after
				Implementation of Grassroots Projects: a study of Bo River
				Basin, Vietnam
4	Hoang	HUS	Izuru	Spatio-temporal Changes of
	Cong Tin		SAIZE N	Seagrass Ecosystem in Cu Lao Cham Biosphere Reserve,
				Central Vietnam in period from
5	Dang Thi	HUS	Hidenor	2002 to 2017  Enhancement of water
	Thanh Loc	1100	i	disinfection efficiency using UV
			HARA DA	radiation with the aid of a
6	Tran Thi	HUAF	Izuru	liquid-film-forming device Urban agriculture and
	Phuong		SAIZE	community development - Case
	Nhi		N	study in Huong Long ward, Hue city, Thua Thien Hue province
7	Nguyen	HUS	Hirohid	Study on the change of
	Ngoc Tung		e KODAY	functional usage in community
			KOBAY ASHI	houses of Katu ethnic group in Nam Dong district, Vietnam and
				preliminary recommendation for
				their preservation and improvement
8	Le Phuoc	DUT	Shuhei	Assessment of environmental
	Cuong		TANAK A	health impact on human living in
			A	industrial zone: case study in Danang city, Vietnam
9	Le Thi	DUT	Kazuyu	Study on the organic waste
	Xuan Thuy		ki Oshita	treatment process using Takakura compost method and application
			Osma	this model in Danang city
1	Pham Thi Kim Thoa	DUT	Shinya	Study on the impacts of invasive
0	кии тпоа		FUNAK AWA	alien species at Ba Na – Nui Chua Nature Reserve, Danang
Щ			_	city, Vietnam
1	Sanara Hor	RUA	Izuru SAIZE	Monitoring Agricultural Land Expansion Using Combined Uses
1			N	of Remotely Sensed Imageries in
				Cambodian Upland Region of
1	Vongkham	Champas	Izuru	Pursat Province The effects of different levels of
2	chanh	ak Univ.	SAIZE	biochar with brewers' grain and
	Bounthavy		N	fermented cassava root for fattening native cattle in Lao
				PDR
1	Phoutnaph	Champas	Izuru	Protein-enriched cassava pulp as
3	a SENGXA	ak Univ.	SAIZE N	protein source for pigs
	YALATH			
1 4	Jan Joseph V. Dida	UPLB	Izuru SAIZE	Carbon Stock Estimation and Landscape Pattern Analysis of
+	v. Dida		N SAIZE	Selected Watersheds in the
				Philippines

### Six-month special audit students gave study plan presentations (April 20, 2018)

By Shigeo Fujii, Professor, GSGES

The 6th Special Audit Student Program in the Spring Semester started in April 2018. Eight students from Bogor Agricultural University, Hanoi University of Science and Technology, Royal University of Agriculture, and Mahidol University gave study plan presentations on April 20, 2018.

地球環境学舎では、平成 25 年以来毎年、東南アジアで学生交流協定を締結している特定の大学から大学院生を招聘し、地球環境学舎科目の提供と研究指導をする「春学期特別聴講生プログラム」を実施しています。その6回目となる平成30年度は、海外5大学から20名の応募があり、書類選考、面接の結果、4大学(ボゴール農業大学、ハノイ理工科大学、王立農業大学、マヒドン大学)の8名を合格としました(平成29年12月~平成30年1月に審査)。

合格した8名はすべて4月に来日し、9月末まで滞在し、地球環境学舎科目の受講と研究指導を

受けます。指導教員は、藤井教授、舟川教授、勝 見教授、柴田教授、宇佐美教授、梶井教授、西前 准教授と縄田教授、奥本教授(農学研究科所属で、 研究指導委託)です。

また、授業と研究指導に加え、研究計画発表会が4月20日に総合研究5号館2F地球環境学舎中講義室で開催され、特別聴講生、指導教員、関係教員・学生ら約20名が参加して実施されました。



Special audit students and their advisors

### Global Environmental Forum: Social networking for the future of rural areas (June 2, 2018)

By Kenichiro Onitsuka, Assistant Professor, GSGES

The 31st Kyoto University Global Environmental Forum, entitled "Social networking for the future of rural areas," was held on June 2, 2018, at the seminar house of the graduate school of science, Kyoto University. This forum considered a variety of issues facing rural areas from the perspective of social networks involving a variety of actors. Assistant Professor Kenichiro Onitsuka (GSGES, Kyoto University) explained the critical situation facing rural areas in Japan, and discussed the transition of rural development theories in relation to rural social networks directed towards rural innovation. Associate Professor Jun Kanamitsu (Faculty of Business Administration, Kyoto Sangyo University) described the current situation and the potential use of art festivals as a new and innovative way of revitalizing rural areas towards the creative rural village. Associate Professor Yukiko Uchida (Kokoro Research Center, Kyoto University) introduced her research regarding the relationship between social networks and happiness in rural areas, as seen from a social psychology viewpoint. The presentations were followed by a panel discussion.

While the three speakers all came from different research backgrounds, their discussion shared a common desire to identify a new way forward to ensure rural sustainability. Audience members also participated, asking important questions about the various presentations. The presentations and the panel discussion all noted that academic studies focusing on social networks, alone, often tended to overlook individuals' motivation or search for happiness. This forum confirmed the importance of further discussions taking both perspectives into account.



Presentations on social networking from various academic fields

#### Internship debriefings at GSGES (April 20 & 27, May 11 & 18, June 8 &15)

By Tetsuhiro Watanabe, Assistant Professor, GSGES

Six separate internship debriefings were organized at GSGES from April 20th to June 15th to provide a forum for master's (second year) and doctoral students. At these events, they reported their experiences and achievements as part of the internship program of GSGES.

インターン研修報告会が 4 月 20 日から 6 月 15 日にかけて計 6 回開催され、修士課程 2 回生および博士課程の学生がインターン研修で得た経験や成果を発表しました。インターン研修の実施内容にで出課程 1 回生がインターン研修の実施内容について学ぶとともに、自身のインターン研修の計画を具体的に考える機会でもあります。国内でのインターンシップは、地方自治体、民間企業、研究所、NPO 法人など多彩でした。またおよそ半数の学生が、中国、ベトナム、インドネシア、カンボジア、フランス、アメリカ等の海外の大学や研究所において研修を行っており、言葉や文化の違いを克服しながら研究や実践に取り組んだ研修内容が報告されました。発表を聞いた修士課程

1 回生の感想には、「自分の研究室では聞けない話が聞けて勉強になった。」「インターン研修への取り組み方や、どういう心持ちで海外に行ったりするのかが分かってよかった。先輩方が戸惑いつつも適応しているので、自分もいろいろな困難を乗り越えたい。」「インターン研修の目的や計画を十分に検討するとともに、研修先で生活することを想像して準備する必要があると感じた。」といったものがあり、修士課程1回生にとってよい機会となった様子がうかがえました。



Sharing internship experiences

### The 27th KAIST-KU-NTU-NUS (KKNN) Symposium on Environmental Engineering was held (July 5-6, 2018)

By Hidenori Harada, Assistant Professor, GSGES

The 27th KAIST-KU-NTU-NUS (KKNN) Symposium on Environmental Engineering (organized by the Graduate School of Global Environmental Studies, co-organized by the Department of Environmental Engineering, Graduate School of Engineering) was held at the Kyoto University Clock Tower Centennial Hall.

The symposium aimed to facilitate the exchange of the latest information on environmental engineering among four top institutions in Asia - the Korean Advanced Institute of Science and Technology (KAIST), Kyoto University (KU), the National Taiwan University (NTU), and the National University of Singapore (NUS). The symposium has been held annually in one or other of these four institutions and, this year, Kyoto University organized it with 111 participants - including 12 to 15 participants from each overseas institution. This symposium aims to train young students by allowing them to experience an international conference and form social networks.

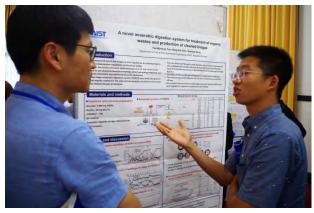
The symposium started with an opening speech by Prof. Shigeo Fujii in the Graduate School of Global Environmental Studies. Twenty oral presentations in 4 sessions and 33 hybrid presentations (short oral presentation + poster display) in two sessions



The 27th KKNN Symposium participants (5 July, 2018)

delivered the latest research information on water issues, global warming, water and wastewater treatment and waste management, leading to many productive discussions. A reception was held on the evening of the first day, beginning with a congratulatory greeting by Prof. Masao Kitano, Executive Vice-President of Kyoto University, at the Camphora café restaurant, where participants enjoyed a friendly dinner while exchanging research ideas.

On the second day, oral presentations were held in the morning and participants then toured the research facilities of Kyoto University in order to gain a better understanding of the latest environmental quality analysis and treatment technology. Thereafter, a gala dinner was held where a summary of this symposium was provided, and the oral and poster presentation award ceremony was conducted. At the end of the symposium, participants promised to meet again in Taiwan, where the next symposium will be held.



Active discussion in front of a poster

第27回 KAIST-KU-NTU-NUS(KKNN)環境工学シンポジウム(主催:地球環境学堂、共催:工学研究科都市環境工学専攻)が2018年7月5・6日に京都大学百周年時計台記念館にて開催されました。本シンポジウムは、韓国高等科学技術院(KAIST)、京都大学(KU)、国立台湾大学(NTU)および国立シンガポール大学(NUS)の4機関で環境工学分野の最新情報交換を目的に毎年行われています。今回は京都大学が担当となり、海外各機関から12~15名、関係者を含め全体で111名の方々の参加を得て実施されました。学生の国際学会経験とネットワーク形成にも重点を置いており、かつて発表した学生が教員等となり、環境工学の研究分野を牽引しています。

本シンポジウムは、藤井滋穂 地球環境学堂教授の開会の辞で始まり、4 セッション 20 件の口頭発表と2セッション33件のハイブリッド発表(短時間口頭発表とポスター掲示)により、水関連問題、地球温暖化問題、上下水処理、廃棄物管理などについて最新の研究成果発表と活発な意見交換が行われました。

初日のレセプションはカフェレストラン カンフォーラにて開催されました。はじめに、北野正雄理事・副学長から祝辞があり、その後、4機関の教員・研究者・学生間で親睦を深めました。翌日は午前中の研究発表の後、午後からは京都大学の研究施設見学を実施しました。最新の環境質分析・管理、処理技術等について理解を深める機会が得られました。その後ガラディナーが開催され、本シンポジウムの総括、プレゼンテーション賞・ポスター発表賞の授賞式および次年度のシンポジウムの紹介などが行われ、参加者は次年度の開催地である台湾での再会を約束し、盛況のうちに閉会となりました。

### Award received: Nishihara Cultural Foundation poster award at the IWA Japan-YWP Symposium (January 28, 2018)

By Shigeo FUJII, Professor, GSGES

Mr. Satoru Yukioka (DC1 student in GSGES) received a Nishihara Cultural Foundation excellent poster presentation award at the IWA Japan-YWP Symposium on Water-Wise Innovation Challenge! ~Mission for Phnom Penh Cambodia~, held in Kyoto on January 28, 2018. His poster presentation title was "Behavior of Polyfluoroalkyl Phosphate Esters and their Degradation Products from Cosmetics in Wastewater Treatment Plants".

2018年1月28日に開催された IWA Japan-YWP Symposium on Water-Wise Innovation Challenge! ~Mission for Phnom Penh Cambodia~において、地球環境学舎博士課程 1 年の雪岡聖君が Excellent poster presentation Award (Nishihara Cultural Foundation poster award)を受賞しました。 IWA



Mr. Satoru Yukioka and his award certificate

(International Water Association) は、水に関わる研究や実務を扱う最も権威のある国際学会で、YWP (Young Water Professionals) はその若手研究者が活躍するグループであり、日本での活動として上記シンポジウムが京都大学吉田キャンパス百周年時計台記念館で実施されました。

雪岡君の発表は、現在の人間活動において、機能性化粧品に用いられているポリフルオロアルキルリン酸エステル類 (PAPs) の下水処理場での挙動を報告したもので、題目は"Behavior of

Polyfluoroalkyl Phosphate Esters and their Degradation Products from Cosmetics in Wastewater Treatment Plants"です。PAPs は、遺伝子損傷性が報告されているペルフルオロカルボン酸類 (PFCAs) の前駆体となりうる成分であり、化粧品由来のPAPs の大部分は下水処理場を経て、環境中に放出される危険性があるため、そこでの挙動の把握は重要です。彼の研究は化粧品由来のPAPs が下水流入負荷量の 14%と推定しています。

### Excellent Presentation Award at the 27th Symposium on Environmental Chemistry (May 24, 2018)

By Shigeo FUJII, Professor, GSGES

Mr. Satoru Yukioka (DC2 student in GSGES) received an Excellent Presentation Award at the 27th Symposium on Environmental Chemistry, held in Okinawa on May 24, 2018. His presentation was titled "Comparison of Road Dust Microplastics in Three Different Asian Cities".

2018年5月24日に沖縄で開催された第27回環境化学討論会において、地球環境学舎博士課程2年の雪岡聖君が優秀発表賞を受賞しました。授賞発表の題目は「アジア3都市の路面塵埃における

マイクロプラスチックの存在実態の把握」です。マイクロプラスック(MPs)は粒径 5 mm 以下のプラスチックであり、世界中の水環境中や水生生物中に存在していることが確認され、問題視されています。彼の研究は、アジア 3 都市(滋賀県草津市、ベトナム国ダナン市、ネパール国カトマンズ市)の路面塵埃における MPs の存在実態を調査し、それぞれの都市の違いを、個数(密度)、成分、粒径等の観点で比較し、その発生源等や環境の差異による影響を検討しました。

## "Taneya Agri-Culture", designed by Prof. Kobayashi, was selected to receive an architectural award in 2018 by the AlJ (Architectural Institute of Japan) (April 20, 2018)

By Hirohide Kobayashi, Professor, GSGES

"Taneya Agri-Culture", designed by Prof. Kobayashi, was selected to receive an architectural award in 2018 by the AIJ (Architectural Institute of Japan). This prestigious award is highly regarded domestically as well as internationally and its presentation is one of the most important events in the AIJ calendar.

Taneya Group, a confectionary company, has been developing a project called "La Corina Omihachman", consisting of many facilities designed in synergy with humans and nature. "Taneya Agri-Culture" is one of these facilities housing two factories for cultivating and potting wild plants and grasses that are then exhibited weekly at all Taneya confectionery shops in cities. The design concept is based on three scales of

environmental symbiosis: the building scale (architecture of organic space), the site scale (architecture following land features), and the surrounding scale (architecture assimilating Satoyama resources). These scales are all interlinked with each other in order to establish the integrated landscape of "Taneya Agri-Culture".

小林広英教授が設計した「たねや農藝」が、(社) 日本建築学会主催の日本建築学会作品選集 2018 に選出されました。作品選集は日本における建築 作品の発表の場として、国内外より高い評価を受 けており、本学会の最も重要な事業のひとつとな っています。



Overview of Taneya Agri-Culture

#### **Visitors to GSGES** (April 1, 2018 – June 30, 2018)

By Shigeo Fujii, Professor, GSGES

#### 1. Tuesday, April 24, 2018:

Dr. Lalantha Senevirathna, Lecturer, Faculty of Business, Justice and Behavioral Sciences (1d) from Charles Sturt University (Australia), hosted by S. Funakawa (1a), S. Fujii (1b), and H. Harada (1c).



1a, 1b, 1d, 1c (L-R)

#### 2. Friday, May 11, 2018:

Ms. Peng Yuan Yuan (staff, 2i), Dr. Guan Yuntao (Professor, 2j), Dr. Wang Xiaohao (Vice Dean, 2k), Dr. Guangxue We (Associate Professor, 2l)

from Graduate School of Shenzen, Tsinghua University, hosted by Suwanna Boontanon (GSGES Associate Professor as well as Associate Professor in Mahidol University, 2a), H. Takano (2b), T. Katsumi (2c), S. Fujii (2d), H. Tanaka (2e), M. Takaoka (2f), K. Oshita (2g), and He Kai (Researcher in RCEQM, GSE, 2h).



2i, 2j, 2k, 2l, 2h (Front line L-R) 2a, 2b, 2c, 2d, 2e, 2f, 2g (Rear line L-R)

京都大学大学院地球環境学堂・地球環境 学舎・三才学林 広報誌

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