

Newsletter



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Secretariat



Kyoto University
Graduate School of Engineering
JSPS Asian Core Program (IWM)

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The 7th Steering Committee Meeting (SCM7) was held successfully at Equatorial Hotel, Malacca Historical City, Malaysia on 26 May 2014. Nine participants from Malaysia and 13 participants from Japan attended the meeting.

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The Japanese delegates share a moment together with the JPPHB, UM staff after their visit at Varsity Lake (University of Malaya Lake) on 27 May 2014 for the 3rd Meeting of Revival Project (Revive Varsity Lake).

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Asian Core Program

Research and Education Center for the Risk Based Asian Oriented Integrated Watershed Management

JSPS Asian Core Program 7th Steering Committee Meeting (SCM7)

26 May 2014

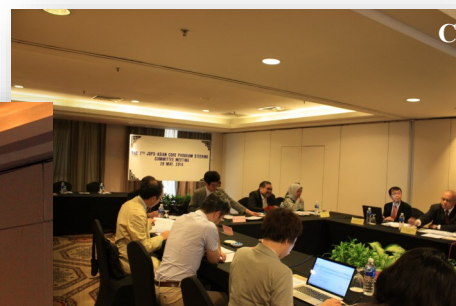
Equatorial Hotel, Malacca The Historical City, MALAYSIA

On 26th May 2014, University of Malaya hosted the 7th Japanese Society for the Promotion of Science Asian Core Program Steering Committee Meeting (SCM7). The JSPS Asian Core Program is an international collaboration between Japanese and Malaysian universities under the research theme of “Research and Education Centre for the Risk Based Asian Oriented Integrated Watershed Management.” The JSPS-ACP Steering Committee Meeting is a bi-annual event, with University of Malaya taking turns to host the meeting. The meeting was held at Melaka Room 6-7, Equatorial Hotel, Malacca. A total of 22 participants (13 Japanese and 9 Malaysian delegates) comprising the coordinators and group leaders, researchers and administrators attended the meeting (3 participants attended the SCM7 via skype: Prof. Eiichi Nakakita, Assoc. Prof. Sunmin Kim and Assoc. Prof. Keisuke Sato).

During the meeting, JSPS Asian Core Program Coordinators from both side Japan and Malaysia, Prof. Yoshihisa Shimizu and Prof. Nik Meriam Nik Sulaiman delivered their opening addresses with an overall summary of past activities until May 2014. The UM Deputy Vice-Chancellor (Research & Innovation) Prof. Dr. Awang Bulgiba also attended the meeting. Each group leader gave their reports on their completed and upcoming group research activities:

1. Dr. Muhamad Askari (Representative for Prof. Zulkifli Yusop, G1- Hydrology, Malaysia)
2. Prof. Dr. Md. Ghazaly Shabaan (G2- Water Quality Group, Malaysia)
3. Prof. Yoshihisa Shimizu (G2- Water Quality, Japan)
4. Prof. Dato’ Dr. Mazlin Mokhtar (G3- Environmental Risk, Malaysia)
5. Prof. Minoru Yoneda (G3- Environmental Risk, Japan)
6. Prof. Datin Dr. Azizan Baharuddin (G4- Governance, Malaysia)

Finally, after a discussion on other matters, the meeting was adjourned and concluded with a gift exchange ceremony and photography session.



(A-C) Photos taken during the SCM7 at Equatorial Hotel, Malacca.

(D-E) Gift exchange ceremony between the two coordinating institutions from Japan Prof. Yoshihisa Shimizu, Kyoto University and Malaysia: Prof. Awang Bulgiba Awang Mahmud and Prof. Nik Meriam Nik Sulaiman, University of Malaya



Asian Core Program

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(Pink box) Malaysian and Japanese steering committee members during the gift exchange ceremony. In the middle, skype connection with the Japanese members who were in Kyoto, Japan.
(Orange box) Photos taken at Varsity Lake where the Japanese delegates visited the lake and had a meeting on Varsity Lake Revival Project at the JPPHB, UM after the visit, a day after the SCM7.



ACP Group 3 Environmental Risk Assessment and Management Workshop 2014: Emerging Issues and Potential Collaboration

20 February 2014

Puri Pujangga, Universiti Kebangsaan Malaysia (UKM), MALAYSIA



Dr. Goh Choo Ta

Institute for Environment and Development
(LESTARI)
Universiti Kebangsaan Malaysia (UKM)

On 20 February 2014, the Group 3 of ACP organised a workshop that was participated by researchers from Japan and Malaysia to discuss issues related to environmental risk assessment and management. The workshop was officiated by Prof. Dato. Dr. Mazlin Bin Mokhtar, Deputy Vice Chancellor (Research and Innovation), UKM cum the leader (Malaysia) of Group 3, ACP. In his welcoming remarks, he acknowledged the long-term relationship and collaboration between Malaysia's universities and Japan's universities, and he shared his experience when he was involved in the JSPS-VCC initiatives started in 2000. Prof. Mazlin ended his speech by acknowledging Ministry of Higher Education, via UM as national coordinator of ACP, for providing financial support for the workshop. After welcoming remarks by Prof. Mazlin, Prof. Dr. Minoru Yoneda, leader (Japan) of Group 3, ACP expressed his appreciation to Malaysia researchers for hosting the workshop in Malaysia. Prof. Yoneda highlighted that this workshop is timely to review existing collaboration research between researchers from Malaysia and Japan, as well as to plan for future research collaboration.



Prof. Dato' Dr. Mazlin is delivering his opening remarks.



Japanese researchers participated in the Group 3 workshop.



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In the workshop, participants have identified research activities that were carried out under the framework of ACP. This includes research collaboration in air quality, water quality, biosensor, community engagement, mercury management, waste management and chemicals management. Prof. Yoneda also took the opportunity to share his plan for the preparation of Group 3 Text Book. He invited all researchers (from Malaysia and Japan) to submit 1 page proposal and he will prepare framework for the Group 3 textbook based on the proposals received. Researchers that submitted proposals are requested to prepare their full manuscript after the framework is established. During the workshop, Associate Professor Dr. Izumi Mori and Ooi Lia (master student under Prof. Dr. Lee Yook Heng's supervision) has jointly presented research findings based on the laboratory experiments that were conducted during Ooi's short-term attachment at Okayama University. After the presentation, workshop participants were actively discussed and deliberated potential research collaboration under the ACP framework.

At the end of the workshop, Prof. Mazlin concluded that research collaboration for Group 3 is progressing well and he anticipated that more outputs (such as journals and books) will be jointly produced by researchers from Japan and Malaysia.

The workshop program :

8.30am – 9.00am	Registration
9.00am – 9.15am	Welcoming Remarks by Prof. Dato' Dr. Mazlin Bin Mokhtar, Group 3 Leader (Malaysia)
9.15am – 9.30am	Welcoming Remarks by Prof. Dr. Yoneda, Group 3 Leader (Japan)
9.30am – 10.30am	Discussion: Review of Collaborative works Conducted by G3 members
10.30am – 11.00am	Tea break
11.00am – 12.30pm	Discussion: Preparation of G3 Text Book
12.30pm – 2.00pm	Lunch
2.00pm – 3.30pm	Discussion: Environmental Risk Assessment and Management – Emerging issues
3.30pm – 4.00pm	Tea break
4.00pm – 4.45pm	Discussion: Environmental Risk Assessment and Management – Potential collaboration
4.45pm – 5.00pm	Closing remarks by Prof. Dato' Dr. Mazlin Bin Mokhtar, Group 3 Leader (Malaysia)



Discussion between researchers from
Japan and Malaysia



Interaction among the participants



Assessment of environmental and human health risks associated with perfluoro organic compounds in Malaysia

15 September 2013 — 13 December 2013

University of Malaya (UM), Kuala Lumpur, MALAYSIA



Prof. Minoru Yoneda
Department of Environmental Engineering,
Graduate School of Engineering,
Kyoto University



Ms. Ayumi Hashiguchi
Department of Environmental Engineering,
Graduate School of Engineering,
Kyoto University

Introduction and Objectives

Among PFCs (perfluorinated organic compounds), perfluorooctansulfonate (PFOS) and perfluorooctanonic acid (PFOA) have been used extensively as industrial surfactant and fire extinguishing agent, and may be a new source of environmental and health hazard. Especially, PFOS was included in the Annex B of 4th Stockholm Convention on Persistent Organic Pollutants (POP4) in 2009 because of the persistence in the environment and high potential of bioaccumulation in the wildlife and human race. For scientific risk analysis, we considered it necessary to assess the intake of PFCs by population in Malaysia through consumption of drinking water and foods, and respiration of air, as well as to understand the metabolism and retention of PFCs in human body by analysis of blood and excreta (especially urine) to clarify the resulting impact to human health. It was also considered important to understand the exposure of babies to PFCs through breast milk feeding.

PFCs concentrations in blood, urine, foods and drinking water samples collected in Malaysia was plan to be measured. In the first place, methods for analysis of these samples for PFCs were established during this internship.

Messages from Supervisor (Prof. Minoru Yoneda)

“Rapid increase of population and high economic growth in Asia created many societal and environmental problems in the region. Especially, investigations of micropollutants in the environment is yet to be conducted. This program is intended to contribute to the scientific assessment of the risk imposed by artificial chemicals in foods, water and air in Malaysia”.

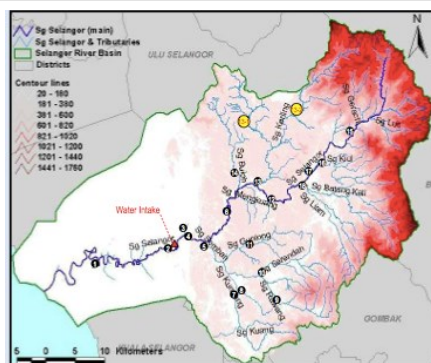


Fig.1 Sampling point in Sungai Selangor



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Results and Discussion

River water samples from the 19 sampling locations from Sungai Selangor were measured in Fig.1. Fig. 2 shows comparison of concentrations of PFOS and PFOA at each sampling points. The experiment was conducted with great help from Dr. Nobumitsu Sakai and PhD candidate Mohd Redzuan in UM.

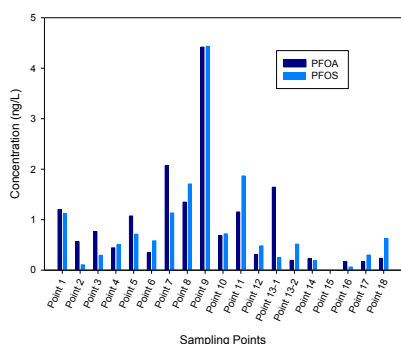
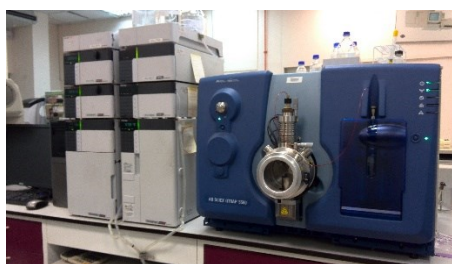


Fig.2 PFOS and PFOA at each sampling points



Fig.3 Fish samples from local market

Concentrations of PFCs ranging from 0-11.5 ng/L were detected in Sungai Selangor river basin. Among the samples, station 9 showed the highest concentration of PFCs probably due to accumulation of industries in Rawang area. Pre-treatment methods for blood samples, urine, ambient air samples, and fish samples were established in UM. Fish samples were purchased at markets in Pasar Borong Selayang and Pasar Borong Selangor in Serdang (Fig. 3). Measurement of ambient air and fish samples were still analysed in Japan. Currently, UM members are now collecting human samples from the university hospital to estimate human exposure to anthropogenic chemicals including PFOS and PFOA.



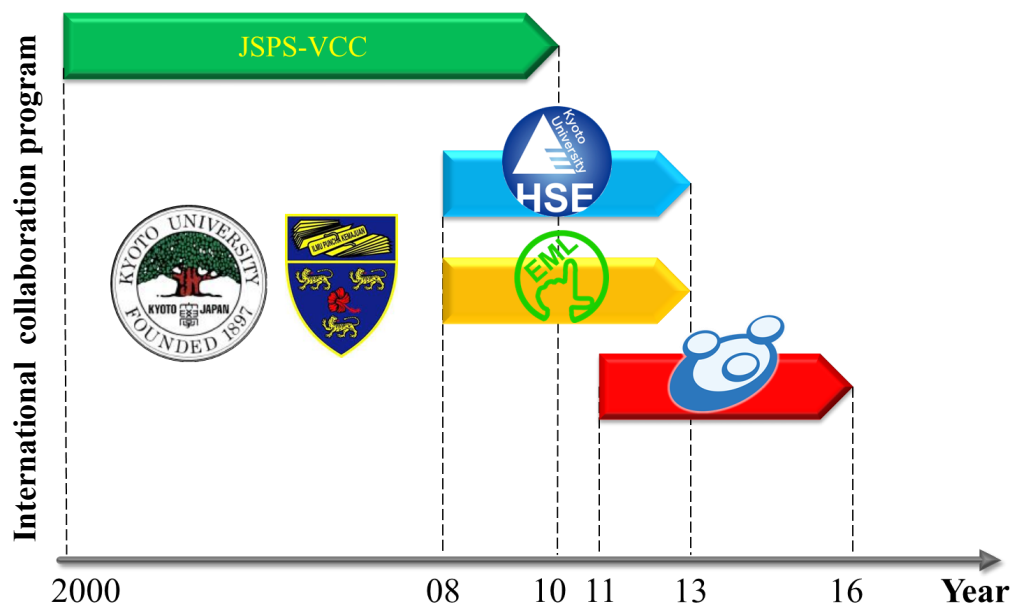
LC/MS/MS in UM



Experimental set up

Conclusion and Future Plan

Currently, there is only one set of data on PFCs in riverwater in Malaysia. The state of PFCs pollution in Malaysia is largely unknown. A field survey to understand the PFC concentration level in water, air, and soil as well as in fauna and flora is necessary to assess the extent of risk from the substance. The phase the project will establish pre-treatment methods for environmental samples including rain water, ambient air samples completely. Secondly, environmental samples and fish consumed by local people that contains potentially high concentrations of PFCs will be analyzed to estimate intake dose of PFCs. As final objective of this research in UM, blood samples and urine will be analyzed to estimate human risk of PFCs in the future.



Programs and its duration under international collaboration between Kyoto University and University of Malaya

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