edhub
Environmental Design Global HUB Kyushu University

# WHAT'S UP?

Vol. 03 April 2018

SAKURA SCIENCE Exchange Program in Science

15 Feb to 24 Feb

The 'Japan-Asia Youth Exchange Program in Science" (also known as SAKURA SCIENCE), established by the Japan Science and Technology Agency, is a government driven and funded initiative to promote and enhance the exchange between youths in Asia and Japan, who will play a crucial role in the area of science and technology.

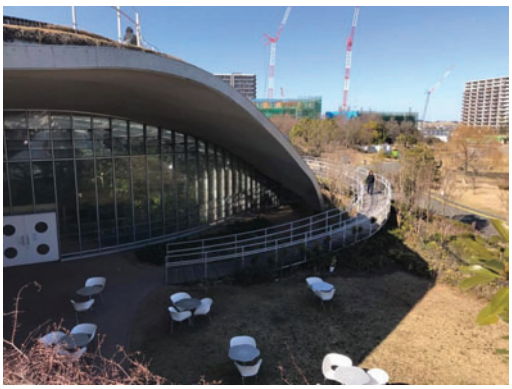
Under the purview of SAKURA SCIENCE, Environmental Design Global Hub, Environmental Design Department, Faculty of Design, Kyushu University has organized the 2nd International Research-Educational Program of Historical Environmental Design to develop experts who are involved in areas such as conservation for architectural heritage, historical landscape and natural environment in the context of Asian cities. The programme includes a symposium, architecture tours, design studio and workshops related to preservation of architectural heritage, historical towns and landscape.

This year we have invited 10 participants from Cambodia, Indonesia, Malaysia, Thailand and Vietnam.

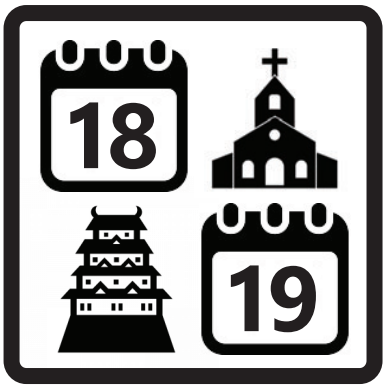


The Participants arrived in Fukuoka on 15th February and the Programme officially started on 16th February. The participants are welcomed to the University by Professor Masakazu TANI, Dean of the Faculty of Design, Kyushu Universoty and Associate Professor Tomo INOUE from the Environment Design Department.

The day began with the participants participating in Kyushu University, Faculty of Design, Environmental Design Students' Graduating Project Presentation. Students shared their projects with the participants in a gallery walk and voted projects are presented in a formal presentation in the afternoon. The day ended with a Welcome party.

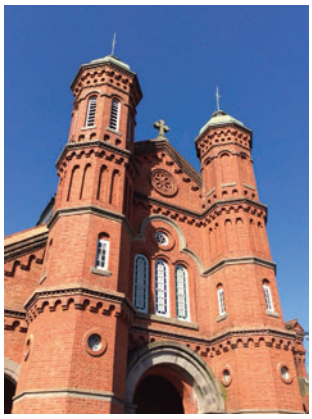
Assistant Professor Masaaki Iwamoto led the group on a Fukuoka City Architectural Tour on the second day. The group visited ACROS, designed by Emilio Ambasz. It is a commercial building that is energy saving and has garden terraces, which reach up to about 60 meters above the ground, containing approximately 35,000 plants representing 76 species. Followed by Bank of Fukuoka, designed by Kisho Kurokawa. It has a large overhang that forms an intermediate space between private space and public space which the public can enjoy the landscape within the space. The group then visited Nexus World Housing which was designed by several renowned Western architects led by the famous Japanese master Isosaki Arata and lastly, the Island City Central Park, designed by Toyo Ito which is located on Island City, in Hakata Bay, north of Fukuoka, Kyushu, in South West Japan.




For the next four days, the participants went on a Heritage Tour to Kumamoto and Kyoto.

In Kumamoto, they visited the Catholic Imamura Church at Tachiarai Machi, Kumamoto Catholic Tedori Church, Kumamoto Castle and Aso Shrine. The visit focused on looking at how the restoration is done for the heritage buildings that were damaged by the earthquakes.

In Kyoto, they visited Fushimi Inari Taisha and Nijo Castle. In Nijo Castle, they were able to look at how restoration work was carried out to preserve the castle in stages and to improve the building to take on seismic forces.


On 22nd February, a sharing was conducted by the team from Kyushu University and the National University of Singapore (NUS) on the research on adaptive reuse research on PK Sen Sattala in Chittagong. The programme closed with the Symposium "Current State and Challenges of Urban Heritage in Asia" on 23rd February. Professor HO Puay Peng gave the keynote speech followed by professors from Kyushu University and the participants from the 5 countries. The day concluded with fun and laughter at the Farewell Dinner and friendship established.



About...

# Professor Kayako KONDO

She is a professor of the Environmental Design in the Faculty of Design. She also served as the Head of the Environment and Heritage Design Course in the Graduate School of Design. She specializes in Environmental Policy, Environmental Economics and History of Social Thought.

# Increase HAPPINESS SUSTAINABLE Living

Professor KONDO is interested in research on ways to increase the happiness of people's lives and vitalize community of a region through behaviour change of residents and companies. She is looking at ways to adapt the traditional way of living which is more sustainable into modern lives. The results of the research will lead to the proposal on social mechanisms and government policies that promote the behaviour change of citizens and the corporations.

Currently, her lab focuses on research in the following themes:

1) A mechanism to effectively utilize natural resources including waste, to revitalize the community to increase the sense of happiness among the residents.
2) A mechanism that adapts to the natural conditions of the region and adapts from the traditional way of living which uses less energy consumption into modern lives.

## Current study on community using natural circulation

Case studies are done on advanced biomass town/city such as Oki town in Fukuoka Prefecture and Maniwa City in Okayama Prefecture to understand how they have capitalized their natural resources including organic waste such as human waste, livestock waste, wood scrap and sawdust from furniture making, in collaboration with the various stakeholders such as residents, companies and government to develop a sustainable economy and environmentally conscious living. These case studies will help to clarify the model used and the possible adaptation into the other regions taking into consideration of the local circumstances. Regional indicators that can support community development to meet regional goals and Life Cycle Assessment (LCA) that incorporates a simulation of regional problem solving were conducted to develop a feasible mechanism.

## Current study on lifestyle of climate adaptation

In traditional society, people despite having economic constraints and limitation in technology were able to live comfortably by adapting to their natural conditions. However, such lifestyle has been abandoned as people become more affluent and aspire to be wealthy. The houses and lifestyle now no longer design to adapt to the climate and energy are consumed extensively, very often more than required. Currently, research is conducted to understand how the design of houses and lifestyle, as well as consumption of energy, have changed with modernization in Japan, China, Thailand and Vietnam. Concurrently, research is conducted on the existing traditional climate adaptive way of living in rural and outskirts part of the Asian countries. These research aims to seek a way of life that does not lose the traditional climate adaptive style but at the same time, able to fit into and enhance the modern way of living to bring happiness to people.

Lecture

7 February 18

# Digital dialogues:

## Computational design from promise to practice

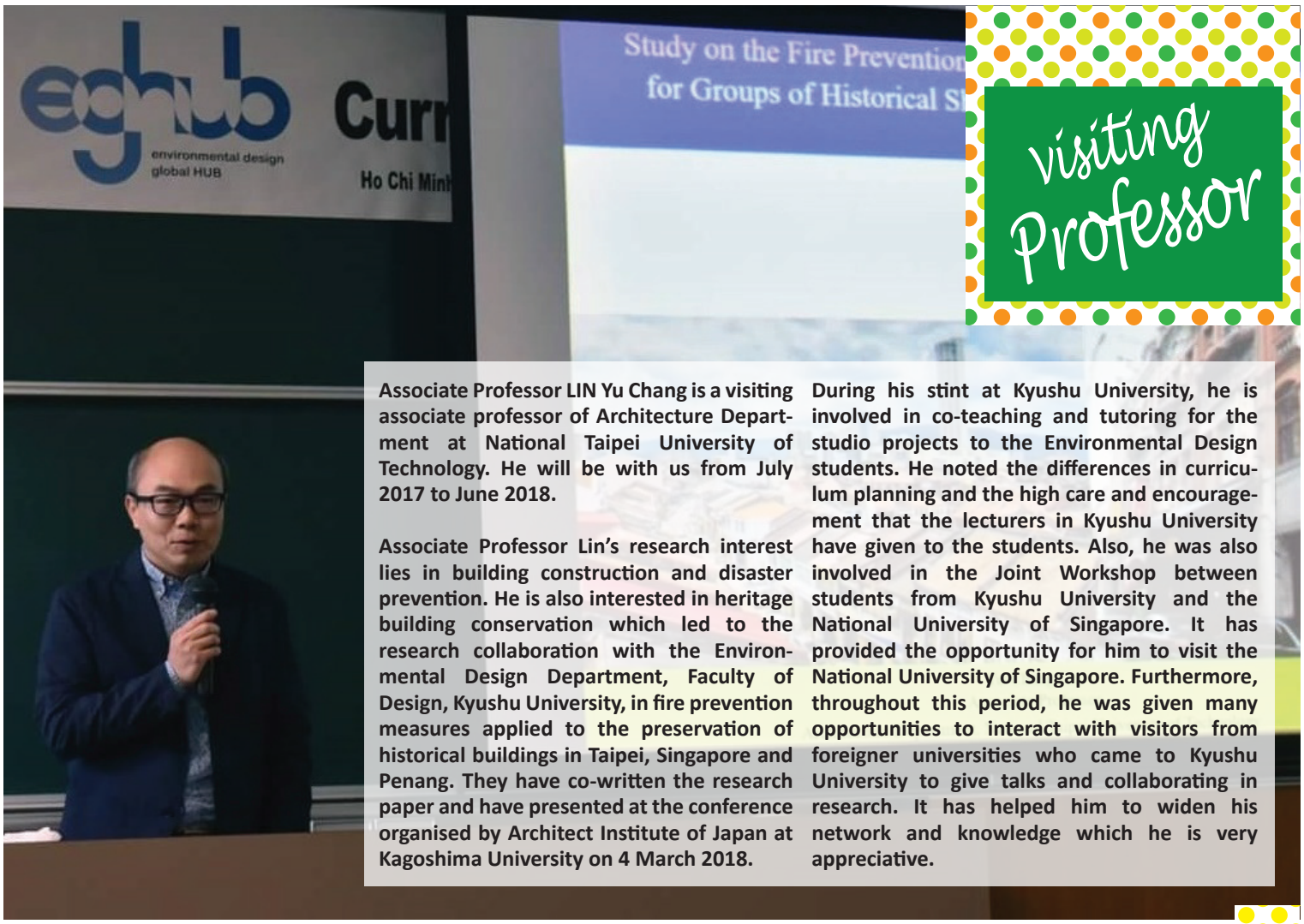
### by Dr NICOLE GARDNER, University of New South Wales

Dr Nicole Gardner from the Built Environment of University of New South Wales (UNSW) gave a talk on 7th February 2018 on the University's New Bachelor of Computation Design Programme. This programme was initiated as a result of the Global Shift, the Australian Government National Strategic Research Priority, UNSW Strategic Goals 2025 and UNSW 4th Grand Challenge of "Living with 21st Century Technology".

In current reality, computers and computing have infiltrated all aspects of the built environment and altered the way in which design is conceptualised, represented, delivered, procured and materialised. Digital technologies can provide innovative pathways to produce and creatively present technical and aesthetic solutions to the challenges that confront the built environment.

The Computational Design degree at UNSW is the nexus of architecture, design, engineering and science through the understanding and application of computing and computation. Cutting edge computer skills and digital fabrication technologies are taught in interlinked modules that allow participation and collaboration on a wide variety of themes to face the challenges of the 21st century and beyond. Modules are designed to address 'real-world' problems, interdisciplinary in nature and in collaboration with the industry and community.

Dr Gardner also shared about the UNSW Built Environment Design Futures Lab, structure of the programme, a range of student's research projects and the challenges faced.




visiting Professor

Associate Professor LIN Yu Chang is a visiting associate professor of Architecture Department at National Taipei University of Technology. He will be with us from July 2017 to June 2018.

Associate Professor Lin's research interest lies in building construction and disaster prevention. He is also interested in heritage building conservation which led to the research collaboration with the Environmental Design Department, Faculty of Design, Kyushu University, in fire prevention measures applied to the preservation of historical buildings in Taipei, Singapore and Penang. They have co-written the research paper and have presented at the conference organised by Architect Institute of Japan at Kagoshima University on 4 March 2018.

During his stint at Kyushu University, he is involved in co-teaching and tutoring for the studio projects to the Environmental Design students. He noted the differences in curriculum planning and the high care and encouragement that the lecturers in Kyushu University have given to the students. Also, he was also involved in the Joint Workshop between students from Kyushu University and the National University of Singapore. It has provided the opportunity for him to visit the National University of Singapore. Furthermore, throughout this period, he was given many opportunities to interact with visitors from foreigner universities who came to Kyushu University to give talks and collaborating in research. It has helped him to widen his network and knowledge which he is very appreciative.

# K2 Joint Workshop

18 Dec 17 to 19 Jan 18

## "K2 Trans-Fabrication"

is a workshop jointly conducted by Kyushu University, Graduate School of Design and idKAIST (KAIST's Department of Industrial Design). 8 students each from both universities joined the workshop which was held in 2 stages, centred on the theme "Urban Furniture for the Future City".

Stage 1 of the workshop is held in KAIST from 18-22 December 2017. Students went for field research on cities in Seoul and traditional architecture in Gongju, and brainstorm ideas with their counterparts.

Stage 2 of the workshop is held in respective universities. Students collaborate remotely via internet and video conferencing to work on digital fabrication to produce full-scale prototypes using honeycomb cardboard.

Throughout the 2 stages, inspiring short talks on Urban Design, Architecture and Digital Fabrication were conducted for the students to complement their learning. A joint presentation and exhibition via video conference were held on 19 January 2018 as a finale to the collaboration.

# Joint Research

## 4 to 8 Jan 18

In Bangladesh, many people are not aware of the importance of upkeep the history and culture of the country. As a result, many of the heritage buildings are neglected and torn down for the construction of modern buildings due to urbanization.

In Chittagong, an important building, PK Sen Sattala, faced the impending fate of being demolished. This is a seven stories building constructed approximately in 1920. It was one of the biggest Bhabans in Chittagong during the British era and, it was the first high rise building in Bangladesh.

At the initiate stage, three universities namely, Kyushu University, Premier University and Chittagong University of Technology and Engineering, supported and by an organization, AK Khan Foundation, came together to try to restore this building by first, documenting the building. Measurements of the building were done via various methods to construct the architecture plan and 3D model as a start to understanding the building. These drawings were completed in 2017.

For the next stage, Kyushu University and the National University of Singapore (NUS) will collaborate and explore ways to adapt and reuse the building. Adaptive reuse of a heritage building will increase the value of the building, thus encouraging the preservation of historic architecture. They have conducted the site in January 2018 to understand the context concerning the environment, culture, economy, etc, before they can make any recommendations for adaptive reuse. Currently, the project is still on-going.

# Coming UP!

## April 2018

- Released of Annual Report Vol.01 2017-2018

## June 2018

- In conjunction with the celebration of Kyushu University, Faculty of Design, 50th Anniversary, we are organizing a talk "What are the thoughts of the young Asian Architects?" featuring Shunri Nishizawa who practices in Ho Chi Minh City, Pornpas Siricururatana from Bangkok and Yu Momoeda from Fukuoka.
- Joint workshop between Japanese and Cambodian students in Phnom Penh, Cambodia, on modern architectural heritage in Phnom Penh. A group of Master Course students from Kyushu University will be participating.

# CONTACT CONNECT COLLABORATE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