

12th Symposium
International
Academic
Consortium for
Sustainable
Cities

2021
Yokohama

Co-creating Solutions to
Urban Challenges
beyond the Pandemic:
Reimagining the role of
higher education and IACSC



IACSC



Message from the President



Michiko Aihara, MD, Ph.D.
President
Yokohama City University

Welcome to the 12th International Academic Consortium for Sustainable Cities (IACSC) Symposium on Co-creating Solutions to Urban Challenges beyond the Pandemic: Reimagining the Role of Higher Education and IACSC.

The IACSC is an inter-university network of Asian institutions. In collaboration with local governments and international organisations, the IACSC has been working on resolving issues faced by Asian cities from an academic perspective. Many students have greatly enhanced their ability to understand international issues and to think globally through participation in IACSC organised overseas field surveys. Such activities have actively contributed to the globalisation of human capital. However, due to the spread of COVID-19 infection, it is currently difficult to gain valuable experience through site visits and personal interaction.

Meanwhile, due to a growing recognition of the advantages of web-based education and research, it is likely that online research and education platforms will continue to be needed in the aftermath of the pandemic. Based on this, we think it is important to facilitate unique opportunities for international experiences through exchange between overseas and local students. We hope that the IACSC will lead the education of this new era and I look forward for more field research to be conducted in post COVID-19 Yokohama.

The world has high expectations toward ASEAN for medium to long-term growth due to its population and economic expansion. However, this pandemic has had a major impact on ASEAN's development agenda. In the midst of unprecedented changes and new trends, ASEAN countries may need to take more proactive steps to continue attracting inclusive and sustainable development projects. It is expected of the IACSC that it becomes an intellectual platform to address these challenges in the ASEAN region. For that reason, we have the pleasure to welcome high-caliber speakers such as the Japanese Representative of the Asian Development Bank, and the Director General of the International Affairs Bureau and Deputy Director General of Climate Change Policy Headquarters of the Yokohama city government to share real world experience. We hope this symposium will provide a great platform for discussions among the six IACSC Asian member universities, and lead to meaningful ideas for solutions.

Yokohama City University has a mission to grow with the international city of Yokohama, fulfil its roles and responsibilities of education, research, and medical care, and contribute to the development of a sustainable human society in which the residents can take pride. We have been utilising our university's intellectual resources to actively make contributions to students, citizens, and society alike. The activities of the IACSC form part of the university's active involvement in international programs and projects. We will continue to deepen our efforts of international cooperation toward solving urban issues in Asia and the world. My heartiest congratulations to our keynotes, panelists, and participants. I wish you all a very successful symposium!

The 12th International Academic Consortium for Sustainable Cities Symposium Program

Part 1

International Symposium (Open to the Public)

- 9:30~ **Opening Declaration** by Rui Ota, Director, Global Cooperation Institute for Sustainable Cities, YCU
- 9:35~ **Opening Remark** by Michiko Aihara, President, YCU
- 9:40~ **Looking back to 12 years of IACSC** by Hidefumi Imura, Advisor to the President, YCU
- 10:00~ **Keynote Speech** by Harumi Kodama, Representative, Asian Development Bank Japanese Representative Office
- 10:20~ **Keynote Speech** by Atsushi Goto, Head of Department of Health Data Science, Graduate School of Data Science, YCU
- 10:40~ Q&A
- 10:50~ Break
- 11:00~12:30 • Short speeches and panel discussion
 • Moderator: Hidefumi Imura, Advisor to the President, YCU
 • Panelists:
 Theme: **Looking Back on the Activities of IACSC:**
 Ngai Weng Chan, Professor, Geography Section, School of Humanities, Universiti Sains Malaysia
 Damasa M. Macandog, Professor of Plant Ecology, Institute of Biological Sciences, University of the Philippines Los Banos
 Huong Dang-Nguyen-Thien, Lecturer, VNU-HCM University of Social Sciences and Humanities
 Theme: **Expectations Toward IACSC:**
 Toru Hashimoto, Director General, International Affairs Bureau, City of Yokohama
 Shuhei Okuno, Deputy Director General, Climate Change Policy Headquarters, City of Yokohama
 Theme: **Future Goals and Aspirations:**
 Mayumi Tsutsui, Special Contract Professor, Nursing Course, School of Medicine, YCU
 Nobuharu Suzuki, Dean, School of International Liberal Arts, YCU
 Andi Masyitha Irwan, Assistant Professor, Faculty of Nursing, Universitas Hasanuddin

Part 2

International Student Forum

- 13:30~ **Theme: Student proposals for sustainable cities toward the realization of the SDGs and the New Urban Agenda.**
- International lecture, workshop, and presentation program between 5 universities of IACSC online.
 - Two presentations selected from 5 teams during a presentation competition held on 10 October
 - Participating universities:
 1. Thammasat University, Thailand
 2. Universiti Sains Malaysia, Malaysia
 3. Universitas Hasanuddin, Indonesia
 4. Vietnam National University, Vietnam
 5. Yokohama City University, Japan

Part 3

Symposium toward launching an Academic Consortium cross-linked project

- 14:00~ Purpose: Share and discuss research themes that IACSC member universities carry out and could develop into international joint research.
- Five topics:**
- **Online global education program in the COVID-19 pandemic era** by Yayoi Shoji, Research Assistant, GCI, et al., YCU
 - **A Comparative study for policy making indicators in Asian cities for achieving sustainability after COVID-19 pandemic** by Fumihiko Omori, Assistant Professor, GCI, et al., YCU
 - **Development of multi actor multi criteria analysis (MAMCA) framework for sustainability assessment of Asian cities** by Damasa M. Macandog, Professor, University of the Philippines Los Banos
 - **Role of sponge cities as an adaptation to climate change** by Ngai Weng Chan, Professor, Universiti Sains Malaysia
 - **Creating work environments based on an understanding of diversity: Focusing on employment of people with disabilities** by Ryota Ochiai, Associate Professor, School of Medicine Nursing Course, et al., YCU
- 17:00 Closing Session

2010

Yokohama City University

1st symposium

**Exploring Sustainable Cities :
A New Role of Universities**

At PACIFICO Yokohama, professors and researchers from Japan and abroad, as well as YCU students, got together and gave presentations related to sustainable cities. The keynote speeches were delivered by the World Bank and JICA. The first General Assembly was held on the following day at YCU to discuss the future strategy of the IACSC. In this conference, YCU was officially appointed as the Secretariat of the Academic Consortium.



2011

Universiti Sains Malaysia

2nd symposium

**Towards a Sustainable Urban Future:
A Collaboration of Higher Education
Institutions and Local Society**

Keynote speeches were given by the City of Yokohama and the Penang Heritage Trust. In the pre-conference session, the future direction of the IACSC was discussed. It was summarized and declared as "The Penang Action Plan" in the General Assembly.



2012

Thammasat University

3rd symposium

Re-imagining Sustainable Cities

The four presidents from IACSC core member universities (Thammasat University, Universiti Sains Malaysia, University of the Philippines and Yokohama City University) participated in the conference. They agreed on further promotion of mutual cooperation to vitalize joint research and education among the IACSC participants. A joint international workshop with the World Bank was also held on disaster mitigation and management.



2013

University of the Philippines

4th symposium

**Transforming Cities into Sustainable
and Resilient Communities**

A variety of renowned guests were invited as keynote speakers from ADB, JICA, City of Yokohama and others. Discussions were held focusing on sustainable cities by researchers and specialists.



2014

Vietnam National University

5th symposium

**Opportunities and Challenges for
Urban Sustainable Development**

The number of students participating in fieldwork and workshops showed steady increase since their start in the 2nd Symposium. Student exchange activities were enhanced in terms of their quality and quantity. Further expansion to education and research activities is expected including the opening of the Sustainable Urban Development Program (SUDP).



2015

Yokohama City University

6th symposium

**Global Partnership and Local
Initiatives for Sustainable Cities**

The Symposium and International Student Workshops were held at the Yokohama Port Opening Memorial Hall. Mr. Jitsuro Terashima, a former president of Tama University, gave a keynote speech, and the urban planning support project in Seberang Perai, Malaysia was introduced by the Director General of the International Affairs Bureau of the City of Yokohama and the Director General of JICA Yokohama. The event was attended by 379 participants, including researchers, students in Japan and from abroad, and local residents.



2016

Universiti Sains Malaysia

7th symposium

Prosperous Urban Living

President Kubota of YCU gave a keynote speech under the theme of healthcare and urban planning in Yokohama. As part of the JICA Technical Cooperation for Partnership Program, 58 students, including 14 students from YCU, participated in the international workshop organized by the Urban Planning Unit of GCI. Students made a proposal to make the targeted areas of Seberang Perai, State of Penang more attractive and livable. The Sustainable Urban Development Program (SUDP) was co-hosted by YCU and Universiti Sains Malaysia, where approximately 40 students learned and discussed environmental issues from the perspective of sustainable urban planning.



2017

Thammasat University

8th symposium

**Well-being of Sustainable Living in
Aging Population Era**

President Kubota of YCU gave a keynote speech under the theme of urban health issues in Yokohama. The Urban Planning Unit of GCI conducted a fieldwork in the Southern areas of Bangkok, and 60 students from YCU, Thammasat University, Universiti Sains Malaysia, and Incheon National University in Korea participated in the international workshop.



2018

University of the Philippines

9th symposium

**Equity and Health in Urban
Environments in the Era of Sustainable
Development**

Taking advantage of the characteristics of the University of the Philippines, Manila, themes focusing on health and public health were taken up, and according to the themes, the Chief of the Health Sector Group of ADB and an executive officer of WHO delivered keynote speeches. The Environment Unit of GCI hosted the 2nd international Climate Change Workshop.



2019

Universitas Hasanuddin

10th symposium

**Creating Resilient Cities with Diverse
Urban Resources**

Dr. Imura, Advisor to the president of YCU, gave a speech as a keynote speaker. In a parallel session, 5 students from the nursing course, School of Medicine of YCU reported the overseas fieldwork conducted in the previous year in the Philippines. Students in the Urban Planning Unit gave a poster presentation in the official residence of the mayor of Makassar, which was a valuable opportunity to present their work directly to the mayor and deputy mayor.



2020

Vietnam National University

11th symposium

**Cities for People : From Theory to
Practice**

Due to COVID-19, the symposium was held as a hybrid conference, combining an in-person conference with online participation from other countries. From YCU, President Aihara gave an opening message, and Dr. Nobuharu Suzuki, professor of the School of International Liberal Arts delivered a keynote speech, and in the closing ceremony, Dr. Imura, Advisor to the president, announced the international conference and general assembly to be held in Yokohama the following year.



2021

12th symposium online

Yokohama City University



Greetings



Rui Ota, Ph.D.

Affiliation: Director, Global Cooperation Institute for Sustainable Cities
Professor, Yokohama City University

Welcome to IACSC 2021 in Yokohama!

At Yokohama City University, with the collaboration of international institutions, we have been striving since 2009 to build a strong intercollegiate network, the International Academic Consortium for Sustainable Cities (IACSC), in order to help solving the urban issues and challenges Asian cities are facing. It is our great pleasure to address our twelve-year continuation of the activity and host IACSC 2021 in Yokohama.

The theme of IACSC 2021 is “Co-creating Solutions to Urban Challenges beyond the Pandemic: Reimagining the role of higher education and IACSC.” This IACSC 2021 consists of three programs: International symposium to discuss the role of higher education and IACSC with highly renowned policy makers of international and municipal organizations and scholars; international students’ forum on future urban development toward the realization of SDGs and New Urban Agenda; and another symposium to seek future international collaborative research involving the participating universities in the IACSC. Looking back on our activities and looking forward to exploring new ideas and research topics are our main goals for this year’s IACSC.

The Global Cooperation Institute for Sustainable Cities (GCI) was founded in order to promote the development of international human resources, of leaders able to lead the international society, by strengthening the relations between universities and between cities, as well as through the IACSC. At GCI, we strongly support and encourage students to go on the field and face the actual conditions and challenges each city has to deal with, in order to enhance their knowledge, experience, as well as ability to develop practical problem-solving skills.

Under the COVID-19 pandemic, it has never been more important to come up with exchanging ideas for solving urban issues internationally. We hope that this IACSC 2021 will be a place to build a better future.



Speaker / Moderator:

Hidefumi Imura, Ph.D.

Affiliation:

Advisor to the President for International Activities, Yokohama City University

Hidefumi Imura is a Project Professor at the Global Cooperation Institute for Sustainable Cities of Yokohama City University and Professor Emeritus of Nagoya University. He is also Senior Fellow at the Institute for Global Environmental Strategies. After he received a Ph.D. in applied physics at the University of Tokyo (1974), he joined the Japan Environment Agency, and subsequently worked for the Ministry of Foreign Affairs and the Yokohama Municipal Government. He moved to Kyushu University in 1988, where he was a professor at the Institute of Environmental Systems until August 2000. Since September 2000, he has also been a professor at Nagoya University, where he teaches environmental systems analysis and planning at the Graduate School of Environmental Studies. Prof. Imura has a wide range of expertise covering domestic and international environmental policy issues, environmental technologies, economics, and information in Japan, China, and East Asian countries. His research centers on energy and material flow analysis of human activities in cities, life cycle assessment of civil infrastructures, and modeling of human and environmental interactions.

IACSC Taking New Challenges Based on 12 Years of Experience

The IACSC was inaugurated in August 2010. This was closely related to Yokohama's selection as the host city for the APEC Summit that year. In harmony with the efforts of the City of Yokohama, YCU took the initiative to launch the IACSC with the aim of contributing to inter-city cooperation and problem solving in the Asia-Pacific region from the standpoint of academia. The activities of the IACSC are based on the three pillars of urban planning, environment, and public health. In each field, the member universities exchange information on their research on specific issues in the city, region, or country where they are located, and conduct student exchanges centered on local field studies. In addition, since 2012, SUDP (Sustainable Urban Development Program) has been conducted to develop a common educational curriculum for member universities, and since 2016, YUSS has started to offer opportunities for graduate students to come to YCU and learn about specific examples of the City of Yokohama in solving urban issues. Although COVID-19 has made it physically difficult to exchange people after 2020, it has been an opportunity to open new possibilities to develop new methodologies for research and education based on COIL (Collaborative Online International Learning).



Keynote Speaker:

Harumi Kodama

Affiliation:

Representative, Asian Development Bank (ADB) Japanese Representative Office (JRO)

Harumi Kodama is the Representative of ADB's Japanese Representative Office. She assumed office on 1 May 2019. Ms. Kodama has over 25 years of experience in the fields of public affairs, external relations, and international development. Prior to this assignment, she was Principal Planning and Policy Specialist in ADB's Strategy, Policy, and Partnerships Department. Before joining ADB, Ms. Kodama worked as a public affairs specialist at the United Nations Population Fund (UNFPA) in New York and programme officer at the Japanese Organization for International Cooperation in Family Planning (JOICFP) in Tokyo and the Caribbean. She began her career as a legislative aide to a Japanese parliamentarian, focusing on policy issues ranging from health and gender to the environment. Ms. Kodama obtained her master's degree in Public Administration in 1994 and her bachelor's degree in Social Sciences in 1992 from the International Christian University in Tokyo.

Towards a Prosperous, Inclusive, Resilient, and Sustainable Asia and the Pacific

COVID-19 is threatening Asia and the Pacific's progress towards achieving the Sustainable Development Goals (SDGs). According to ADB's latest report, the pandemic pushed an estimated 75 million to 80 million more people in developing Asia into extreme poverty as of 2019, compared with what would have happened without COVID-19. In addition to income levels, progress has also stalled in areas such as hunger, health, and education. On the other hand, the pandemic has presented the region with a unique opportunity to accelerate change.

The presentation will cover the economic outlook for the region, the impact of COVID-19, and how ADB has been responding to the pandemic. It will also discuss ADB's priorities under Strategy 2030, its contributions to the achievement of the SDGs, and challenges and opportunities in the post-COVID world. The presenter will also share her perspectives on the role that universities and young people in Asia can play in driving innovation for a better future.



Keynote Speaker:

Atsushi Goto, MD, Ph.D., MPH

Affiliation:

Head of Department of Health Data Science, Graduate School of Data Science, Yokohama City University

Dr. Goto is an epidemiologist and health data scientist who specializes in clinical medicine and population health. He is currently the Head and Professor of the Department of Health Data Science in the Graduate School of Data Science at the Yokohama City University. He received a medical degree from Yokohama City University in Japan and a doctoral degree (PhD) in epidemiology in 2012 from the University of California, Los Angeles (UCLA). He is now leading several research projects mainly on chronic diseases, using population-based prospective cohort studies and large-scale clinical databases.

Roles of Public Health and Data Science in Building Sustainable Society beyond COVID-19

The Coronavirus Infections 2019 (COVID-19) pandemic poses a serious threat to global health. In Japan, the outbreak occurred on the cruise ship Diamond Princess and has spread throughout the country. In Japan, the first vaccine against SARS-CoV-2 was approved in February 2021, and as of August 30, 2021, 44.6% of the total population had completed two doses of vaccination, and 87.2% of those aged 65 and above had completed the vaccine. However, the fifth wave of infections became noticeable in late July 2021, perhaps due to the spread of the delta strain. Although the number of infected elderly people is decreasing, the number of infected people under the age of 65 who have not completed vaccination has increased significantly; as of August 30, the number of infected people per day has exceeded 13,000, and the number of COVID-19 patients has exceeded 2,000. Thus, despite the increasing number of vaccinated people, there remains a significant burden associated with COVID-19. In this presentation, I would like to discuss what can be done to curb the COVID-19 pandemic from the perspective of public health and data science.

**Panelist:**

Ngai Weng Chan, Ph.D.

Affiliation:

Professor, Geography Section, School of Humanities, Universiti Sains Malaysia

Professor Dr Ngai Weng Chan is trained as a geographer, a field that focuses on human-environment relationships. He has a BA in Geography, Masters in Climatology & Meteorology and PhD in Environmental Hazards Management. He has more than 40 years experience in lecturing, research, consultancy, writing and publication. His working experience is as follows: University of Malaya (1977-1986), Universiti Sains Malaysia (1986-Present), the University of Memphis USA (2000-2001 Sabbatical) and the Asian Institute of Technology Thailand (2006-2007 Sabbatical). In 2010, he was awarded Winner of the Asia Water Management Excellence Award. He has completed 67 research/consultancy projects, published 30 books, 110 book chapters and 128 papers in professional journals.

Realising Sustainable Cities Via Intercity and Inter-University Collaboration in Joint Teaching, Research and Exchange Programmes

The International Academic Consortium for Sustainable Cities (IACSC) was established in 2009, and Universiti Sains Malaysia (USM) has been an active partner. It is an impactful international platform for academic collaboration that has achieved notable recognition internationally. Its theme of “Cities and Universities – Towards Collaboration for Sustainable Cities” is very relevant in today’s urban-centred societies. The IACSC’s main focus is on sustainable cities, mainly addressing SDG 11. Its main themes have been traditionally focused on Health, Environment and Urban Planning. To ensure its growth and sustainability, the IACSC must continue to expand, not only to include more member universities from Europe, North and South America and Oceania, but also to venture into other activities/initiatives such as joint international research, joint publications, joint consultancies, and offer joint courses. These exchange programs are mutually enriching to the host university as well as the participants and should be continued, either via online mode or mixed-mode. Future IACSC collaboration should still continue on staff and student exchange and training, field visits cum learning programs, placements, with greater focus on joint research and publications.

**Panelist:**

Huong Dang-Nguyen-Thien, M.Eng.

Affiliation:

Lecturer, VNU-HCM University of Social Sciences and Humanities

Huong Dang – Nguyen – Thien is currently working as a lecturer at Faculty of Urban Studies of University of Social Sciences and Humanities, Vietnam National University HCMC. Her research field is urban environment. She had an opportunity to study urban waste management at Yokohama City University in Japan for one academic year. After that, she had some chances to return to Japan for a research related to climate change resilience. Aside from giving lectures and doing researches, she also assists her Dean of the faculty to organize the international programs which consists of supporting student’s exchange summer courses, collaborating conferences between universities.

Students’ Responses to IACSC Activities

VNU-HCM and YCU have collaborated for over 10 years by sharing ideas to strengthen the IACSC network, hosting the academic activities and augmenting the students’ trainings aim to the goal of sustainable development for cities under the impact of climate changes. Going by with the experiences in those years, IACSC is expanding the goal from sustainability to adaptation. This strategy shows the correct path of the improvement that will be suitable for both natural disasters and the pandemic diseases in this century. Having reached adaptive goals, YCU has put strong efforts to build various educational programs that could help to enrich knowledge from educators to young learners. Students’ responses to these activities are always energetic and full of passion. By sending emails, writing in letters, texting in local applications, FB messenger or chatting after the course, students bring positive responses and motivation for changes. The idea of a combination between online and on-site programs can be considered in further strategy. Promoting the IACSC’s activities on a website can be a good channel of sharing knowledges, connecting members, authors, students, and online sources can help to succeed the goal of long-life learning.

**Panelist:****Toru Hashimoto****Affiliation:****Director General, International Affairs Bureau City of Yokohama**

Toru Hashimoto is in charge of the Y-PORT (Yokohama Partnership of Resources and Technologies) Program. Y-PORT is public private partnership endeavor to deliver knowledge and cutting-edge technology for urban solutions. He was instrumental in initiating collaborations under the City Partnership Program with the World Bank and concluding a Memorandum of Understanding between ADB and the City of Yokohama related to urban management and solutions. He has also been actively engaging in fostering international human resources for the next generation, including establishing a session for university students to participate in the Asia Smart City Conference, which is held annually as part of the Y-PORT Program. Before joining the City of Yokohama, Mr. Hashimoto held technical and managerial positions at the World Bank and Asia Development Bank Institute. He was educated at the University of Tokyo, Asia Institute of Technology, and Massachusetts Institute of Technology on urban planning, engineering, and human settlements. For further information regarding Y-PORT, please refer to the following website. <https://yport.city.yokohama.lg.jp/en>

Invitation to the CMaaS concept - Sharing Yokohama's experience and expertise –

Yokohama is known as the most livable city in National Capital Region. Yokohama reached the current state while facing a rapid population growth from 1950s to 1980s and associated serious urban issues. City Hall formulated the cross sectoral master plan for this challenge represented by "Six Major Projects". A new city center, Minato Mirai 21 was one of them. To connect existing commercial area and business area, an unparalleled and unique mixed-use urban development was undertaken where offices, R&D facilities, shopping malls, university, convention center and residential spaces coexist. More than 1,800 companies located with 110,000 workers and 10,000 residents. 83 million people visit there every year. Yokohama is sharing experiences and expertise through public private collaboration, "Y-PORT center GALERIO" was established for this, and 10th Asia Smart City Conference is going to be organized between October 26 and 28. Concept of CMaaS (City Management as a Service) will be discussed.

**Panelist:****Andi Masyitha Irwan, RN, Ph.D.****Affiliation:****Assistant Professor, Faculty of Nursing, Hasanuddin University**

Andi Masyitha Irwan is an Assistant Professor at Gerontological Nursing Department, Faculty of Nursing, Hasanuddin University, Indonesia. She had her Bachelor of Nursing Science degree from Nursing Program Study at Hasanuddin University, Indonesia, in 2005. She graduated from the Master of Nursing program, College of Nursing, University of The Philippines, Manila in 2012. She earned her Ph.D. in Nursing degree from Graduate School of Health Sciences, Kanazawa University, Japan in 2013. Currently, she is a post-doctoral fellow at the School of Nursing, University of Michigan, USA. Instead of teaching activities, she is actively conducting and publishing research articles focusing on older people and chronic diseases area. Since 2019, she is the person in charge for the collaboration program with the Department of Nursing, Yokohama City University.

Strengthening students and faculty members collaboration program during Global Pandemic

Since 2019, we started to establish collaboration between the Department of Nursing, Yokohama City University (YCU), Japan, and the Faculty of Nursing, Hasanuddin University, Indonesia. Various activities have been done, including YCU student's site visits to Hasanuddin University and attendance of our students to the exchange program at YCU. During the pandemic situation, our collaboration program keeps continuing in the form of the Sakura Science Program for students. As for faculty members, we have joint research related to health promotion for university students. In addition, we also invited a faculty member from YCU to give a guest lecture last semester. We believe that the mission similarity of both YCU and Hasanuddin University, which is to increase student and faculty member mobility, is the key to our continuous collaboration. A broader topic of the exchange student program and more variety of lecturer activities is needed to strengthen this good relationship.

**Panelist:**

Damasa M. Macandog, Ph.D.

Affiliation:

**Professor of Plant Ecology, Institute of Biological Sciences
University of the Philippines Los Baños College**

Prof. Macandog is a Professor of Plant Ecology teaching various courses on Plant Ecology, Principles of Ecology, Quantitative Ecology, Ecosystem Services and Climate Change, Earth Science, and Biology. She is actively involved in research and provides leadership to multidisciplinary research teams. Her research interests include land use change and its impacts on biodiversity and hydrologic balance; biodiversity information system; climate change and environmental risk assessment; recreational and aquaculture

carrying capacity of freshwater lakes, mangrove ecosystem services in coastal hazard mitigation, developing climate decision-support framework, water and nutrient dynamics in indigenous muyong-payoh systems, marine plastic litter, and sustainability of agricultural and agroforestry production systems.

IACSC Collaborative Activities Toward Climate-Proof Asian Cities

The University of the Philippines Los Baños has been actively participating in the various IACSC activities since 2017. SUDP 2018, successfully hosted by UPLB and UP Manila, focused on environmental issues including climate change, Laguna lake water and sedimentation, ground water pollution, impacts of land use change and urbanization, and solid waste management and public health. UPLB students also participated in other SUDP courses held at Yokohama City University in the succeeding years. The idea of an international course like SUDP is a welcome opportunity for the international exposure of our students to widen their regional perspective.

The IACSC international conferences can continue on facilitating promotion of knowledge exchange between IACSC member cities on climate change adaptation and mitigation; promotion of public participation and youth engagement towards climate resilient and sustainable urbanization; and development of a regional framework for curriculum development with local contents on climate and resilient cities.

**Panelist:**

Shuhei Okuno

Affiliation:

Deputy Director General, Climate Change Policy Headquarters, City of Yokohama

Born in 1962. After working at private construction company, he joined the City of Yokohama in 1989 as a civil engineer.

He has been involved in various area of infrastructural development in Yokohama, such as comprehensive environmental policy, road works, sewerage, water environment, green space, agriculture, parks and biodiversity. In addition, he has engaged in infrastructural development in emerging Asian cities.

Currently, he is responsible for climate change countermeasures in Yokohama.

Efforts toward Carbon neutrality aimed at a sustainable society -Zero Carbon Yokohama by 2050-

In recent years, the effects of climate change due to global warming, such as increased disasters and biological reduction, and the impact on social and economic activities have become more serious. The City of Yokohama has declared "Zero Carbon Yokohama by 2050" in October 2018 and aims to achieve a "Carbon neutral society" with the administration, parliament, and citizens.

COVID-19, which the world is currently facing, is also caused by the issue of climate change, and we are working on urgent measures to combat the infection and revive the economy, but in order to achieve a more sustainable society, we need to address global environmental issues such as climate change in a fundamental way.

Therefore, we expect that the realization of zero carbon in Asia will be promoted by cooperating with the activities of IACSC. Finally, young people in particular need to recognize and take measures to long-term problems such as global warming as their own problems while adapting to them. We would also like to further promote Zero Carbon by collaborating with the youth.



Panelist:

Nobuharu Suzuki, Ph.D.

Affiliation:

Dean, School of International Liberal Art, Yokohama City University

Trained as urban planner at the Department of Urban Engineering, University of Tokyo, where he got MA and Ph.D. Nobuharu Suzuki has been teaching urban design at University of Tokyo (1995-2000), Kanto Gakuin University (2000-2006) and Yokohama City University (2006-). He has been involved in various projects in urban design and conservation planning of historical environment including historic buildings and industrial heritage. In recent years, he has been engaged in the research and planning for the Creative City project in Yokohama City. In 2015, he was awarded Tamura Akira Machidukuri Award as a member of Koganecho Project Team by Japanese Association of Local Government Policy Studies. In 2021, he was awarded the Special Prize for Earthquake Restoration and Recovery by the Architectural Institute of Japan in recognition of his support activities for recovery from the Great East Japan Earthquake.

International Intercity Cooperation and IACSC, Its Possibilities and Challenges

In this presentation, the past activities of the Urban Planning Unit of the IACSC will be reviewed and the possibilities for future activities will be discussed. The Urban Planning Unit has been involved in three activities: international student workshops, international joint research, and inter-city technical cooperation.

Among them, the inter-city technical cooperation was adopted as a JICA's grassroots technical cooperation project, "Urban Development Project Utilizing Historical and Natural Resources in Seberang Perai, Penang, Malaysia," and was implemented as a cooperative project among Yokohama City, Yokohama City University, Seberang Perai City, and USM. In this project, Urban Design Plan utilizing historical assets of Bukit Mertajam area in Seberang Perai City was created. In the early stages of the study, International Student Workshop of IACSC was held, and the students' proposals were presented to the local residents. Through the experience of this project, the possibility of IACSC and inter-city cooperation will be discussed.



Panelist:

Mayumi Tsutsui, RN, Ph.D.

Affiliation:

**Special Contract Professor of Yokohama City University
Emeritus Professor of Japanese Red Cross College of Nursing**

Education

March, 1970 Gakushuin Women's Junior College March, 1974 Keio University School of Nursing (RN)

March, 1984 St. Luke's College of Nursing (MN) November, 1990 New York University (Ph.D)

Professional Experience

March, 1976 Keio University Hospital April, 1991 St. Luke's College of Nursing

April, 1993 The Japanese Red Cross College of Nursing April, 2020 Yokohama City University

Fearless Environment for International and Interdisciplinary Collaboration

For organizations with different cultures and specialties to work as a team, it is important to ensure that the people in each organization feel "psychological safety." Psychological safety describes a climate in which people feel sufficiently safe to take interpersonal risks by speaking up and sharing concerns, questions, or ideas (Edmondson, 2019). When people do not speak up, the organization's ability to innovate and grow is threatened (Edmondson, 2019).

In this session, I would like to introduce the action research I conducted with nurses from six pediatric wards and an outpatient department in Japan. Specifically, for nurses to maintain interest in the child facing them, it was important for them to be cared for by their colleagues, supervisors, physicians, and other medical professionals. When nurses feel that they are being cared for by others, they are motivated to care for the people and the organization. In international and interdisciplinary collaboration as well, it is important to create an environment in which the participants (i.e., researchers, government officials, or business personnel) are cared for and free of fear. I hope that IACSC-based future projects will focus on the environment, process, and interactions of those involved as well as their outcomes.

International Student Forum for IACSC 2021

Outline

International lecture, workshop, and presentation program between 5 universities of IACSC online.

Alternate to the field work and workshop on site every summer.

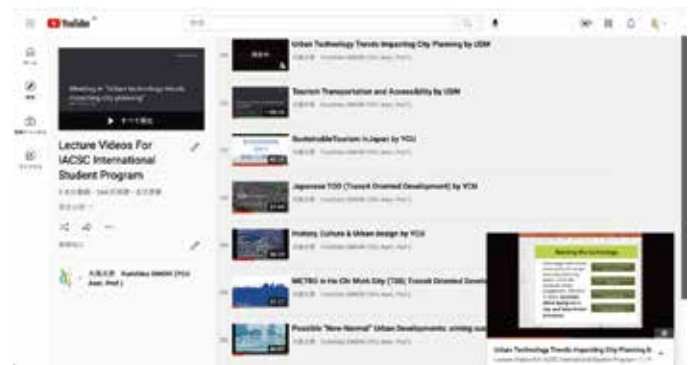
Facilitated by Global Cooperation Institute for Sustainable Cities (GCI), Yokohama City University.

Purpose

1. To learn about various issues in Asian cities by video lecture.
2. To discuss the issues in an inter-university workshop.
3. To share the students' ideas by presentations.

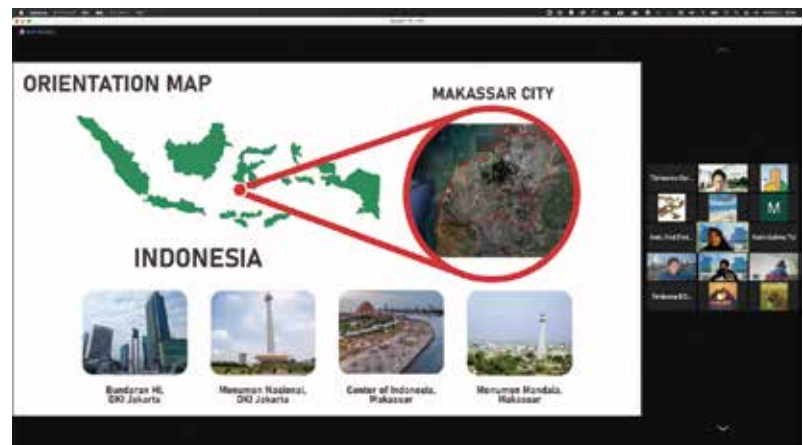
Participants

1. Thammasat University: 6 students
 2. Universiti Sains Malaysia: Only faculty
 3. Universitas Hasanuddin: 10 students
 4. Vietnam National University: 5 students
 5. Yokohama City University: 11 students
- Total: 5 universities, 32 students



Video lectures

Online presentation in interim forum



Interim forum participants

Program

Date	Agenda
July	Video lectures about 5 topics from 4 universities via YouTube
August	Preparing presentation by each university
4th September	Interim Forum Presentations by 4 universities Grouping 5 inter-university teams for groupwork
September	Preparing final presentations by each inter-university team
10th October	Presentation Competition Presentations by 5 inter-university teams Selecting teams for 12th IACSC Symposium or 10th Asia Smart City Conference
16th October	12th International Academic Consortium for Sustainable Cities Symposium Presentation by selected teams
28th October	10th Asia Smart City Conference Presentations by selected teams
November	Summarizing for report

5 topics

1. Urban development method aiming at sustainability, urban development based on New Urban Agenda (by Thammasat university)
2. Walkable city, pedestrian friendly city, low-carbon city, sustainable sight-seeing under travel restrictions (by Universiti Sains Malaysia)
3. Nature conservation, culture, biodiversity in a city, city village (by Universitas Hasanuddin)
4. TOD (transit-oriented development), train station area development, mobility as a service (by Vietnam National University)
5. Culture/ art/ heritage preservation among a city (by Yokohama City University)



Online Global Education Program in the COVID-19 Pandemic Era

Speakers:

Yayoi Shoji, Pei-I Tsai, Fumihiko Omori, Akio Onishi, Masahiko Nakanishi, Ryota Ochiai, Makoto Seta, Takashi Yoshinaga, Rui Ota, and Hidefumi Imura

Affiliation:

Yokohama City University

Abstract

Due to the global spread of COVID-19 infection, it has become impossible to conduct face-to-face classes, and online classes have become the standard. The rapid development of the Internet has facilitated international exchange, rendering it less time-consuming and costly. Conversely, going abroad and interacting face-to-face have become impossible, which has engendered various problems.

Against this background, this presentation aims to share the status and issues of online global education with the participants, and to discuss its future development. Yokohama City University has been actively conducting international exchanges with universities in Southeast Asian countries through some programs, including SUDP and Sakura Science. These exchanges, which are student-led and involve group work and discussion, have been conducted in collaboration with faculty members and have been maintained online even amid the spread of infection. We have been using online tools to interact as much as possible during the epidemic, such as Miro and Google Slides for group work, and virtual tours and facility introductions for those who are unable to visit the local sites.

For future international and interdisciplinary collaborative research, we have collected the two following suggestions from Yokohama City University, which has experienced multinational online global exchanges:

1. The development and implementation of a standardized scale to evaluate students' engagement, satisfaction, and perceived learning in the online global education program.
2. Intervention studies to compare the effects of different teaching methods (e.g., Real-time vs. video-streaming lectures; Virtual site visit vs. facility introduction video).

In the session, after introducing our educational experiences and suggestions for future research, we would like to share the experiences and discuss research plans with IACSC member universities.

A Comparative Study for Policy Making Indicators in Asian Cities for Achieving Sustainability after COVID-19 Pandemic

Speakers:

Fumihiko Omori, Pei-I Tsai, Masahiko Nakanishi, Akio Onishi, and Takashi Yoshinaga

Affiliation:

Yokohama City University

Abstract

This study aims to compare the indicators which are used in Asian cities for measuring sustainability and supporting policy decisions .

Currently, many cities are facing a variety of problems such as over population in cities and expansion of urban areas, traffic congestion and mobility difficulties, the environmental impact of greenhouse gases and waste, vulnerability to disasters and infectious diseases, difficulties in urban planning, consensus building through participatory decision making of citizens and the management of personal information and privacy, and so on.

Each city has been trying to clarify and improve these issues by using various indicators. In addition, changes in lifestyle due to fear of COVID-19 infection forced us to consider to use different indicators for making more sustainable and resilient cities.

Although there are many researches report city rankings and indexes around the world, research has mainly focused on generating data about the cities in more economically developed countries, such as US and Europe. There is still limited understanding of the scale and depth of policy implication to explore how sustainability indicators are perceived and whether strong support for local action exists in Asian countries. Therefore, it is important to undertake systematic comparison between cases, to employ quantitative methodologies at local level in Asian countries, and utilising data such as common and different indicators for each city, statistics in each city, methods and frequency of surveys and questionnaires, and concept of indicators to achieve the purpose.

In this study, we would like to clarify and improve the city sustainability indicators, enable it to be applicable to authorities in decision making on how institutional and social political support are required in Asian cities.

Development of Multi Actor Multi Criteria Analysis (MAMCA) Framework for Sustainability Assessment of Asian cities

Speaker:

Damasa M. Macandog

Affiliation:

Institute of Biological Sciences, University of the Philippines Los Baños

Abstract

SDG 11 aims “to make cities and human settlements inclusive, safe, resilient and sustainable”. IACSC member universities will collaborate toward the development of a Multi Actor Multi Criteria Analysis (MAMCA) framework and analyze a set of indicators to facilitate the implementation of SDG 11 in Asian cities. Indicators are classified into four categories of sustainable development, i.e. institutional, economic, social and environmental. Furthermore, each Asian city is unique in terms of the dimensions of indicators of sustainable development including education, health, planning, fiscal management, environment, protection of the cities and information technology governance.

Following the approach by Macharis et al. (2004) and Almeida (2019), participatory activities with various stakeholders are conducted to discuss and understand the main challenges and opportunities in implementing SDG 11 in Asian cities. Multi stakeholders representing local government, business sector, scientific and technical community, civic organizations and local communities are engaged in the various steps of the MAMCA framework. These analytical steps include identifying the problems and alternatives for evaluation; stating the objectives and criteria; allocating weights to each criterion; and expressing their preferences. Another important step is the construction of indicators to evaluate each individual criterion and specifying the measurement method. Analytical Hierarchy process (AHP) is used to obtain the relative importance of each criterion. Each stakeholder group will conduct a multi-criteria decision analysis (MCDA). Each criterion will be analyzed to generate a multi-stakeholder view for the different alternatives. The LGU will decide on the alternatives to implement toward SDG 11.

Through this collaboration, a comparative analysis of achieving sustainable cities in Asia can be achieved.

Role of Sponge Cities as an Adaptation to Climate Change

Speaker:

Ngai Weng Chan

Affiliation:

Geography Section, School of Humanities, Universiti Sains Malaysia

Abstract

Climate change is a highly pervasive phenomenon in the 21st century, largely caused by anthropogenic activities and resulting in severe negative effects on cities including hazards such as heat waves, urban heat islands, floods and droughts. To address these hazards, better coping, adaptation and resilience are needed at the city level. Cities all over the world suffer from heat, flood and drought hazards that often escalates into disasters resulting in significant loss of life, injury and property losses. This proposal examines the incidence of heat, flood and drought occurrence in urban areas, and examines how “Sponge cities” relying on sustainable urban drainage, reforestation, maintaining wetlands, increasing green lungs, urban farming, and water storage capabilities combine to reduce floods, heat, droughts caused by climate change. Addressing these climate change effects will lead to achievement of Sustainable Development Goals 6 (Clean water and sanitation), SDG 11 (Sustainable cities & communities) and SDG 13 (Climate action). The methodology of the proposed research is based on past research, historical event analysis, literature review, case studies and other secondary data. Primary data in the form of questionnaire survey of city folks and city managers will also be carried out. Expected results based on existing research have shown the potential of sponge cities in addressing heat, flood and drought hazards in cities. This research will produce deeper understanding on the role of sponge cities in adapting to climate change, including absorbing and retaining rainwater and stormwater, purifying and storing the water, and transferring excessive city heat elsewhere. Sponge cities have great potentials in reducing flood peaks, reducing floods and reducing loss of life and other flood losses. Sponge cities can purify and store rainwater and stormwater, often in ponds and lakes, which can be used to address drought problems. Finally, Sponge cities are a viable method of solar radiation reflection and heat transfer as these cities cope very well with heat due to their lower incidence of urban heat islands. Sponge cities and their green attributes also provide huge recreational values. Overall, the green landscape offered by sponge cities is also found to be aesthetically pleasing, socially acceptable as it is safe for the public and cost-effective. In conclusion, a holistic strategy combining technical application of sponge cities and non-technical human coping and resilience is the key towards effective adaptation to climate change in terms of heat, floods and droughts in cities.

Creating Work Environments Based on an Understanding of Diversity Focusing on Employment of People with Disabilities

Speakers:

Ryota Ochiai, Takashi Yoshinaga, and Yayoi Shoji

Affiliation:

Yokohama City University

Abstract

With advancements in medical care, an increasing number of people are able to work even with chronic disabilities. In the U.S., one in ten people has at least one disability, while in Japan, one in two is estimated to develop cancer in his/her lifetime, with one in three cancer patients belonging to the working age group. The proportion of adults with childhood-onset diseases has also been increasing, and employment has become an issue.

Systems to support the employment of people with disabilities vary by country. In Japan, people with a certain severity of disability are eligible to obtain a disability certificate. There are three types of disability certificates: physical, mental, and intellectual. Persons with a disability certificate can seek employment under the quota for the disabled. In Japan, companies with 43.5 or more employees are required to set aside at least 2.3% of the jobs for people who have a disability certificate. Meanwhile, some people who have gained employment under the quota for the disabled do not disclose their condition to superiors and colleagues, amid concerns of discrimination and prejudice. Consequently, companies are unable to provide reasonable accommodation, resulting in low retention rate in the workplace.

The key words in this field are “reasonable accommodation,” “universal design,” “self-understanding,” “employability,” and “diversity.” While employment of people with disabilities has a welfare aspect, it also provides benefits for workers without disabilities by creating a work environment based on an understanding of diversity. Support systems, the concept of disability, and public perceptions of working with people with disabilities may differ among countries. In this study, we aim to elucidate the differences between countries and discuss the creation of comfortable and creative working environments based on an understanding of diversity.





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