

# HYFLEX INTERNATIONAL EXCHANGE PROGRAM

## Transdisciplinary Summer School on the Environment

Faculty of Environmental Science, Nagasaki University

### "Asian Environmental Resilience Research Initiative 2023"

Asian Environmental Resilience Research Center (AERRC)

## About Summer School

Transdisciplinary Summer School on the Environment provides unique opportunities for undergraduate and master course students who wish to acquire knowledge and skills on environmental management and science for environmental conservation. The HyFlex Summer School consists of International Environmental Expert Seminar, Problem-Based Learning, and Internship at the Faculty of Environmental Science, Nagasaki University, Japan or via online linking with your own home and partner universities.

### International Environmental Expert Seminar (IEES) & Problem-Based Learning (PBL) on the environment July 3 – August 25, 2023

International Environmental Expert Seminar (IEES) provides multidisciplinary lectures with topics ranging from Japanese environmental management policies to the science and technology for the environmental issues. Problem-Based Learning (PBL) includes group discussions, local field trips, and group presentations on environmental problems of students' home countries. Students will receive 2 credits on the completion on the IEES and PBL.

### Laboratory Internship & Young Researcher Training by Asian Environmental Resilience Research Center (AERRC) July 18– August 21, 2023

Laboratory internship opportunities are hosted by our faculty members with expertise ranging from social science to natural science. Laboratory work includes analytical/green chemistry, toxicology, solid waste management, physiology, bioengineering, geology, phycology, conservation ecology, environmental law, economics, sociology, international relations, management and planning. Please visit our website (<http://www.env.nagasaki-u.ac.jp/english/members.html>) for available options. AERRC provides training program for young researchers to promote transdisciplinary environmental research for SDGs.

July	3 Mon	4 Tue	5 Wed	6 Thu	7 Fri	8 Sat
1 <sup>st</sup> week (Online)	Orientation Opening remarks	First half of IEES ( <i>on-demand classes of four key topics in environmental science</i> ) History of Industrial Pollution in Japan (Dr. TOMOZAWA, Yuuki) & Introduction to Animal Law for Animal Welfare and SDGs (Dr. HONJO, Moe) Can You Measure the Weight of a Molecule? (Dr. TAKAO, Yuji) & Clouds and Climate (Dr. KAWAMOTO, Kazuaki)				
July	10 Mon	11 Tue	12 Wed	13 Thu	14 Fri	15 Sat
2 <sup>nd</sup> week (Online)	PBL progress check	First half of IEES ( <i>continued</i> )				
July	17 Mon	18 Tue	19 Wed	20 Thu	21 Fri	22 Sat
3 <sup>rd</sup> week (HyFlex)	Arrival at Nagasaki (Japanese Holiday: Marine day)	Laboratory Internship & Young Researcher Training (1 <sup>st</sup> round)				Nagasaki History Museum
July	24 Mon	25 Tue	26 Wed	27 Thu	28 Fri	29 Sat
4 <sup>th</sup> week (HyFlex)	PBL progress check	Laboratory Internship & Young Researcher Training (2 <sup>nd</sup> round)				
August	31 Mon	1 Tue	2 Wed	3 Thu	4 Fri	5 Sat
5 <sup>th</sup> week (HyFlex)	PBL progress check	Laboratory Internship & Young Researcher Training (3 <sup>rd</sup> round)				
August	7 Mon	8 Tue	9 Wed	10 Thu	11 Fri	12 Sat
6 <sup>th</sup> week (HyFlex)	PBL progress check	Preparing Laboratory Internship presentation	Peace study	Preparing PBL presentation & abstract	Self study (Japanese Holiday: Mountain day)	Self study
August	14 Mon	15 Tue	16 Wed	17 Thu	18 Fri	19 Sat
7 <sup>th</sup> week (HyFlex)	Self study (NU's Summer Closure)	Self study (NU's Summer Closure)	Self study (NU's Summer Closure)	Second half of IEES ( <i>face-to-face classes</i> ) (Dr. TOMOZAWA, Y. & Dr. HONJO, M.) (Dr. TAKAO, Y. & Dr. KAWAMOTO, K.)		Shimabara Peninsula (Dr. UMAKOSHI, Kodo & Dr. WATANABE, Takashi)
August	21 Mon	22 Tue	23 Wed	24 Thu	25 Fri	26 Sat
8 <sup>th</sup> week (HyFlex)	Internship presentation & PBL progress check		Submit PBL abstract	PBL presentation & Discussion	Closing remarks	Preparing return trip

Program may be changed due to COVID-19 pandemic.

Environmental Policy

Science & Technology

PBL & Training

# IEES Lecturers in AERRI 2023



## Transdisciplinary Summer School on the Environment (Asian Environmental Resilience Research Initiative 2023) International Environmental Expert Seminar



### Assoc. Prof. Dr. Yuuki TOMOZAWA

Environmental Sociology Laboratory,  
Department of Environmental Science,  
Graduate School of Fisheries and Environmental Sciences,  
Nagasaki University

#### "History of Industrial Pollution in Japan"

Japan's rapid modernization in the 19th and 20th centuries was built on a number of serious pollution incidents at home and abroad. This lecture will present the history of pollution in Japan and the experiences of people's struggles to overcome both pollution and social injustices.



### Prof. Dr. Yuji TAKAO

Environmental Chemical micro-analysis Laboratory,  
Department of Environmental Science,  
Graduate School of Fisheries and Environmental Sciences,  
Nagasaki University

#### "Can you measure the weight of a molecule?"

In recent years, mass detectors have been widely used in environmental analysis. You will learn the principles of this detector and deepen your understanding of its advantages, disadvantages, and environmental applications.



### Assoc. Prof. Dr. Moe HONJO

Animal Law Laboratory, Department of Environmental Science,  
Graduate School of Fisheries and Environmental Sciences,  
Nagasaki University

#### "Introduction to Animal Law for Animal Welfare and SDGs"

Recent global developments in animal welfare law are remarkable. In the lecture, basic concepts regarding animal law and comparative study of animal law will be discussed.



### Prof. Dr. Kazuaki Kawamoto

Satellite Climatology Laboratory,  
Department of Environmental Science,  
Graduate School of Fisheries and Environmental Sciences,  
Nagasaki University

#### "Clouds and Climate"

Clouds occupy about 60% of the earth's surface and play a crucial role for formation of the climate via dynamical, hydrological and radiative processes. In this lecture, the relationship between clouds and climate will be described mainly by observed data.



## Host Professors of Laboratory Internship in AERRI 2023

Laboratory information is as of 1<sup>st</sup> February 2023. Please check the latest information at our web page using the QR code.



### Environmental Policy

Prof. Aiko ENDO  
(Water-Energy-Food Nexus)

Assoc. Prof. Masahiko OTA  
(Natural Resource Management)

Assoc. Prof. Satoshi FUKAMI  
(Tourism and Environmental Education)

Assoc. Prof. Yoko SEKI  
(Environmental Philosophy)

Prof. Seiko GOTO  
(Landscape Architecture)

Assoc. Prof. Yosuke SHIGETOMI  
(Environmental System)

Assoc. Prof. Hironori HAMASAKI  
(Environmental Governance)

Assoc. Prof. Sunhee SUK  
(Environmental Business and Management)

Assoc. Prof. Mitsuru HATTORI  
(Evolutionary Ecology)

Assoc. Prof. Takayuki TAKESHITA  
(Energy, Environmental, and Economic Systems Analysis)

Assoc. Prof. Moe HONJO  
(Animal Law and Policy)

Assoc. Prof. Yuuki TOMOZAWA  
(History of Environmental Philosophy in Japan)

Prof. Kensuke KATAYAMA  
(Urban and Regional Planning)

Assoc. Prof. Yoko WADACHI  
(Environmental Politics)

Prof. Hidehiro KIKUCHI  
(Environmental Law and Policy)

Prof. Takashi WATANABE  
(Landscape and Regional Planning)

Assoc. Prof. Satoru KURODA  
(Environmental and Regional Sociology)

Assoc. Prof. Yuki YAMAMOTO  
(Environmental Economics)

Prof. Hirohiko NISHIKUBO  
(Environmental Law and Policy)

Assoc. Prof. Mamoru YOSHIDA  
(Environmental Planning and Disaster Risk Management)

### Science & Technology

Prof. Hiroshi ASAKURA  
(Solid Waste and Resource Engineering)

Assoc. Prof. Tomoki NAKAYAMA  
(Atmospheric Environmental Science)

Prof. Kei'ichiro IGUCHI  
(Conservation Ecology)

Prof. Masaya NISHIYAMA  
(Soil Science)

Assoc. Prof. Masafumi IIMA  
(Phycology)

Prof. Jiro OKADA  
(Neuroethology and Ecotoxicology)

Assoc. Prof. Makoto KAGABU  
(Environmental Water Science)

Assoc. Prof. Seiji SHIRAKAWA  
(Green Chemistry)

Prof. Kazuaki KAWAMOTO  
(Satellite Climatology)

Prof. Yuji TAKAO  
(Environmental Analytical Chemistry)

Assist. Prof. Takashi KUBO  
(Environmental Safety Science)

Assoc. Prof. Hiroyuki TAKASU  
(Biogeochemistry and Marine Environmental Science)

Prof. Tetsuji MUTO  
(Morphodynamics and Stratigraphy)

Assoc. Prof. Akira TOMIZUKA  
(Environmental Physics and Simulation)

Prof. Masaki NAGAE  
(Environmental Toxicology)

Prof. Kodo UMAKOSHI  
(Seismology and Volcanology)

Prof. Kei NAKAGAWA  
(Environmental Groundwater Science)

Assoc. Prof. Masahiro YAMAGUCHI  
(Plant and Atmospheric Environment)

Prof. Hideki NAKAYAMA  
(Environmental Bioengineering)

Prof. Noriyuki YAMAGUCHI  
(Animal Ecology)



# Nagasaki University Area Map

## About the Nagasaki City

### Population

The population of Nagasaki city is about 410,000. 長崎市の人口は約41万人です。

### Environment

A centralized city that has a mix of the ocean, mountains, and a downtown area.

海・山・市街地が一つになったコンパクトな街です。

### Cultural heritage

8 of the locations listed under UNESCO's "Sites of Japan's Meiji Industrial Revolution."

「明治日本の産業革命遺産」としてユネスコ世界遺産に登録された観光遺産が長崎には8つあります。

### History

Nagasaki city has a culture of its own, one that is a mixture of Western, Chinese and traditional Japanese culture.

長崎は西洋、中国、そして日本の文化が融合している歴史ある街です。

### Traffic

The tram that will make your transportation around the city much easier.

路面電車ですぐ市内を簡単に回れます。

## About Nagasaki 長崎について

Nagasaki is a very unique city where you can enjoy nature, historical sites and urban area at the same time. While you live in Nagasaki city, you can enjoy shopping, hiking, and going to beaches.

You don't want to miss the breathtaking night view of Nagasaki city that has been recognized as one of the "New Three Great Night Views of the World."

長崎は、自然と史跡、市街地を同時に楽しめるユニークな街です。市内に住みながら、ショッピングやハイキング、夏にはビーチを楽しめます。

また、長崎は「新世界三大夜景」に選ばれた街でもあります。長崎の夜景は見逃せません。

## Climate 気候

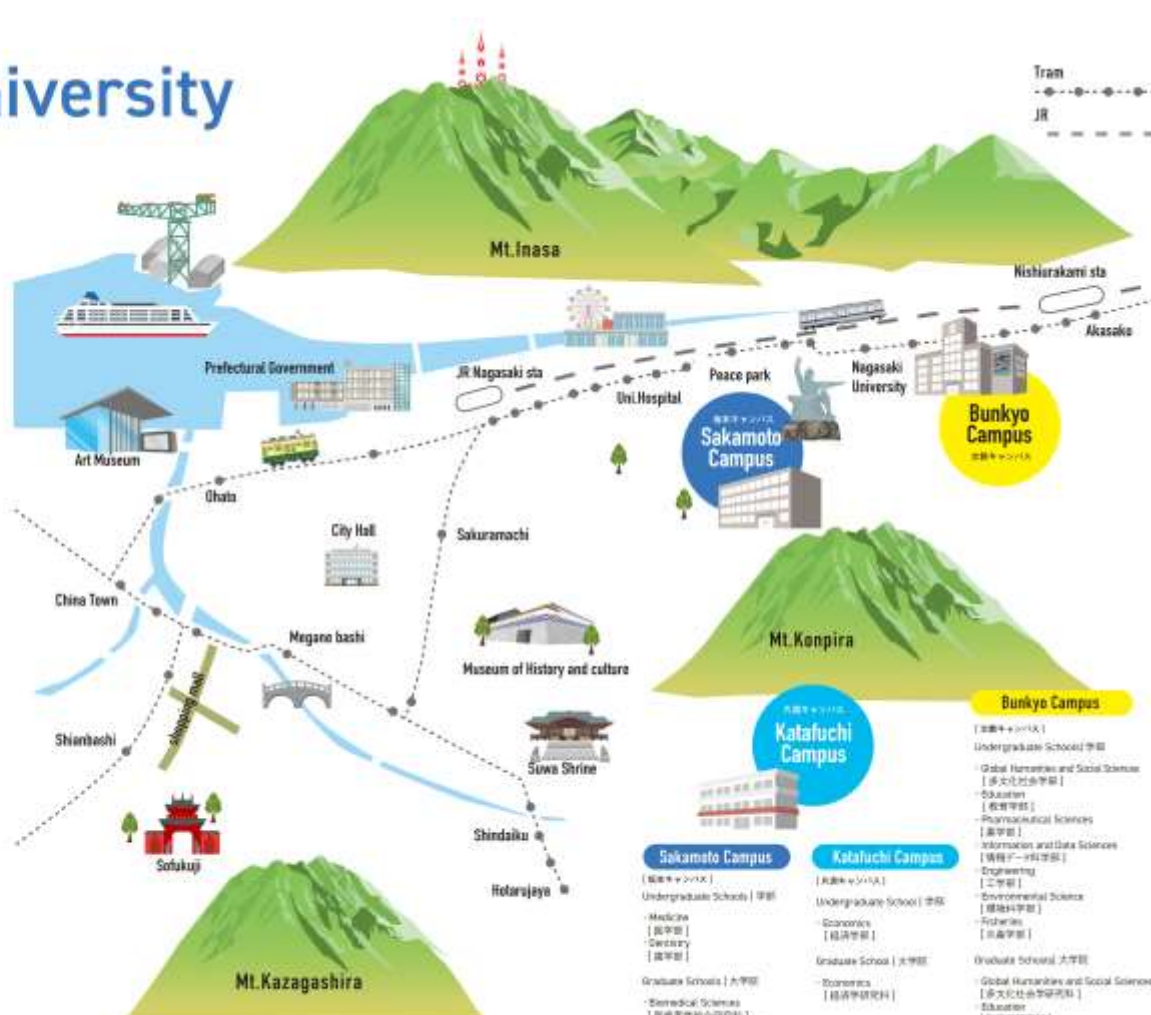
Enjoy the beauty of all four seasons in Nagasaki!

長崎では、日本独特のはっきりとした四季を楽しめます。

Season 四季	Climate 気候	What you can enjoy 特色
Spring 春 March to May 3~5月	About 20°C. Moderate. Comfortable weather. 約20度、暑くもなく寒くもなくちょうど良い季節。	Flower viewing, Hanami! 花見を楽しめます。
Summer 夏 June to August 6~8月	About 32°C. Hot and humid. Rainy season in July. 約32度、暑くて湿度が高いです。7月は雨期に入ります。	Beautiful beaches. 美しいビーチが多くあります。
Fall 秋 September to November 9~11月	About 23°C. Moderate. Comfortable weather. 約23度、暑くもなく寒くもなくちょうど良い季節。	A huge festival called Kunchi which Nagasaki resident are passionate about. 長崎市民が毎年心待ちにしている、長崎で一攫千金な祭り、くんちがあります。
Winter 冬 December to February 12~2月	About 8°C. Very dry. 約8度、空気がとても乾燥します。	Occasionally snow flurries without heavy snow. 大雪にはなりません。たまに降る雪の美しさを楽しめます。

## Cost of Living 生活費

Lunch ランチメニュー(飲み物含む)	¥500~¥1,500
Combo meal in fast food restaurant ファストフード店でのセットメニュー	¥700
1 liter of whole fat milk 牛乳(1ℓ)	¥150~¥210
12 eggs (large) 卵1ダース	¥150~¥220
A bottle of mineral water (500 ml) at supermarket ミネラルウォーター(500ml)	¥70~¥150
A bottle of mineral water (2L) at supermarket ミネラルウォーター(2ℓ)	¥120~¥200
A cup of coffee at a café カフェでのコーヒー	¥350~¥500
A movie ticket(student) 映画チケット(学生割引)	¥1,500







Nagasaki Atomic Bomb Museum

## Field trips

Mitsubishi Heavy Industries,  
Nagasaki Shipyard  
\*Photo by courtesy of Mitsubishi Heavy Industries, Ltd. Nagasaki Shipyard.

Unzen Geopark

Unzen Volcano (front right: Mt. Mayu,  
back left: Haisei-shinzan)

Megane-bashi (Spectacles Bridge)



Nagasaki Peace Park

## Message

Come and learn about  
environmental policy and  
technology in Japan

Dean, Prof. OKADA, Jiro

Faculty of Environmental Science was established in 1997 to solve emerging global and regional environmental problems. Our education and research aim is to train prospective students as environmental professionals in a transdisciplinary environment to serve for the benefit of the global society. We welcome all of you to Nagasaki University to share this excellent opportunity during this summer.

## 2022 participants' feedback

## Best academic experiences ever

Mr. BOONCHAIREE, Nuchanon  
Mahidol University, Thailand

The Summer School Program is an eye-opening experience for me, this program allows me to make new friends from different countries, while also study under the professors during the internship period. This is one of the best academic events that I ever participated in my life. The three weeks internship period is the time of learning with the professors of my choosing in the field of study that I am interested in. And the result of the internship is fruitful, I have gained more new knowledge and learned about the topic and field that I am interest in, and this help me in determining the path of my future.

## An amazing 10 weeks in Nagasaki University!

Ms. TURNER, Jasmine Emma  
Lancaster University, United Kingdom

This programme has exceeded any and every expectation I had. I have learnt a lot about my field of interest that will help me a lot in my studies, but it never felt like work, especially due to my host professors. I learnt a lot and had proper hands on experience that I wouldn't have been able to get at a larger corporate internship. When we weren't working, I spent a lot of time exploring Nagasaki and Kyushu with my new friends. I cannot thank them enough for taking care of us and excited to stay in touch. Although I was also nervous about spending 10 weeks away in Japan, the time has gone by so quickly and every moment has been special.



Memorial photos

Participants of the Transdisciplinary Summer School  
on the Environment (AERRI 2022)

## How to apply

Please contact International Exchange Office of your university. Students from universities holding MOU with Nagasaki University are waived from tuition and fees. Participants are responsible for their cost of travel and accommodation. Limited scholarships are available.

## Enquiries

International Exchange Committee,  
Faculty of Environmental Science,  
Nagasaki University

1-14 Bunkyo-machi, Nagasaki-shi,  
Nagasaki 852-8521, Japan

Phone: +81-(0)95-819-2715

E-mail: [env\\_international@ml.nagasaki-u.ac.jp](mailto:env_international@ml.nagasaki-u.ac.jp)

URL: <http://www.env.nagasaki-u.ac.jp/english/>



## Access to Nagasaki University



From Fukuoka International Airport  
2 hours by highway express bus to Nagasaki

From Nagasaki Airport  
50 minutes by limousine bus via Showa-machi

From JR Nagasaki Station  
20 minutes by tram #1, 2 & 3 towards Akasako



長崎大学  
NAGASAKI UNIVERSITY

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