

Learning to design a sustainable future

International Program for Environmental Innovators



Graduate School of Media and Governance Keio University
 Keio University Shonan Fujisawa Campus

Aim

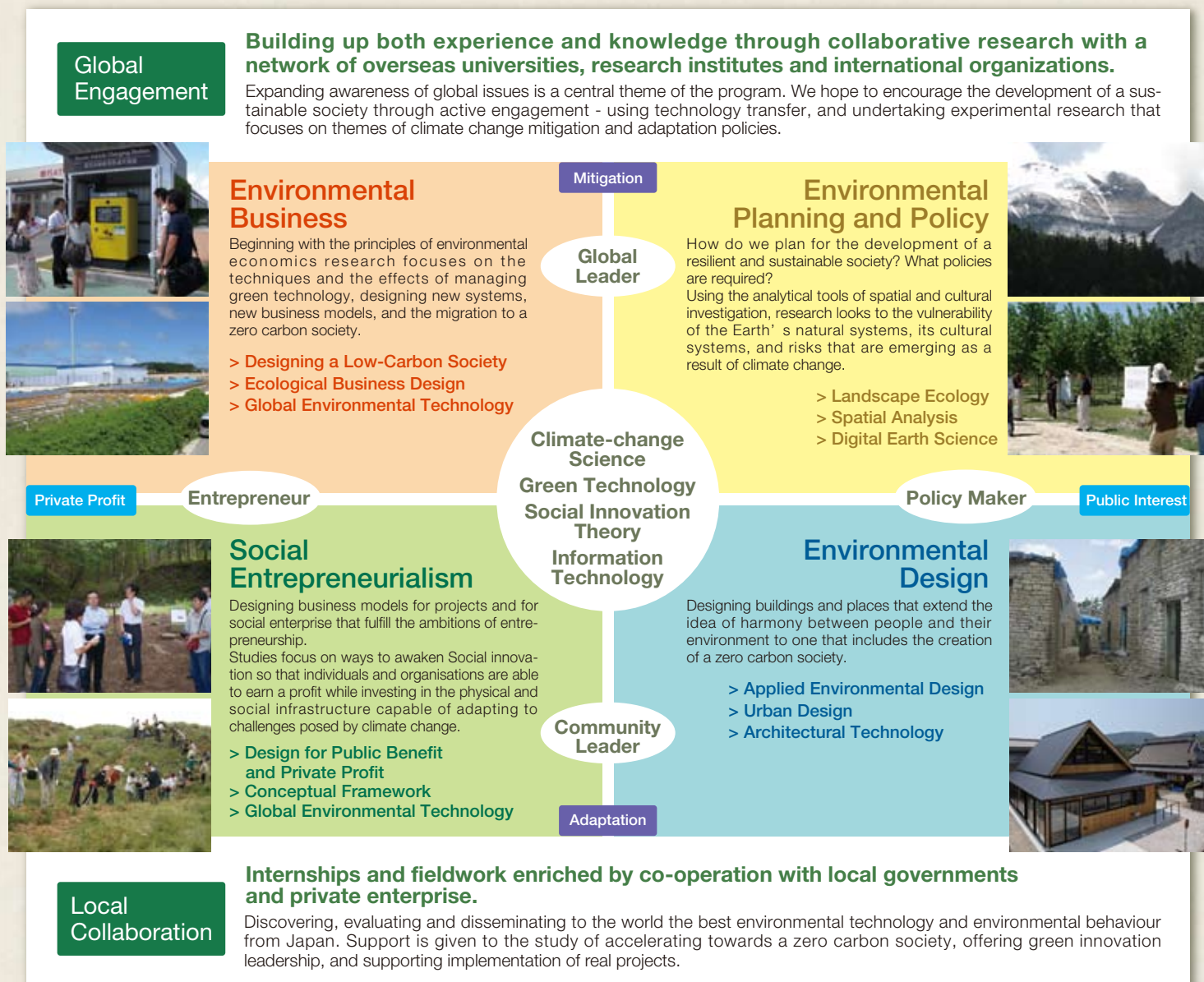
The chief ambition of the environmental innovator program is to train world-class environmental leaders who are able to tackle the dual problems of climate change mitigation and adaptation.

Who we are Looking For:

- ◎ Students with a flexible outlook and strong sense of responsibility
- ◎ Students interested in both research and practice
- ◎ Students interested in pursuing projects that balance economics, social issues, and environmental issues
- ◎ Students who wish to join and expand our network of practitioners

Concept

The focus of the environmental innovator program is climate change mitigation and adaptation - especially in Asia and in Africa. The program unites a cross section of fields, from urban planning and architecture, to policy design, social entrepreneurialism, to information technology.



Fields of Employment After Graduation

Urban Planning	Researcher
Architectural Design	Local Government
Low Carbon Business Manager	International Organization
Political Analyst/Civil Servant	Private Enterprise
Global Leader	NPO/NGO
Local Leader	Social Entrepreneur

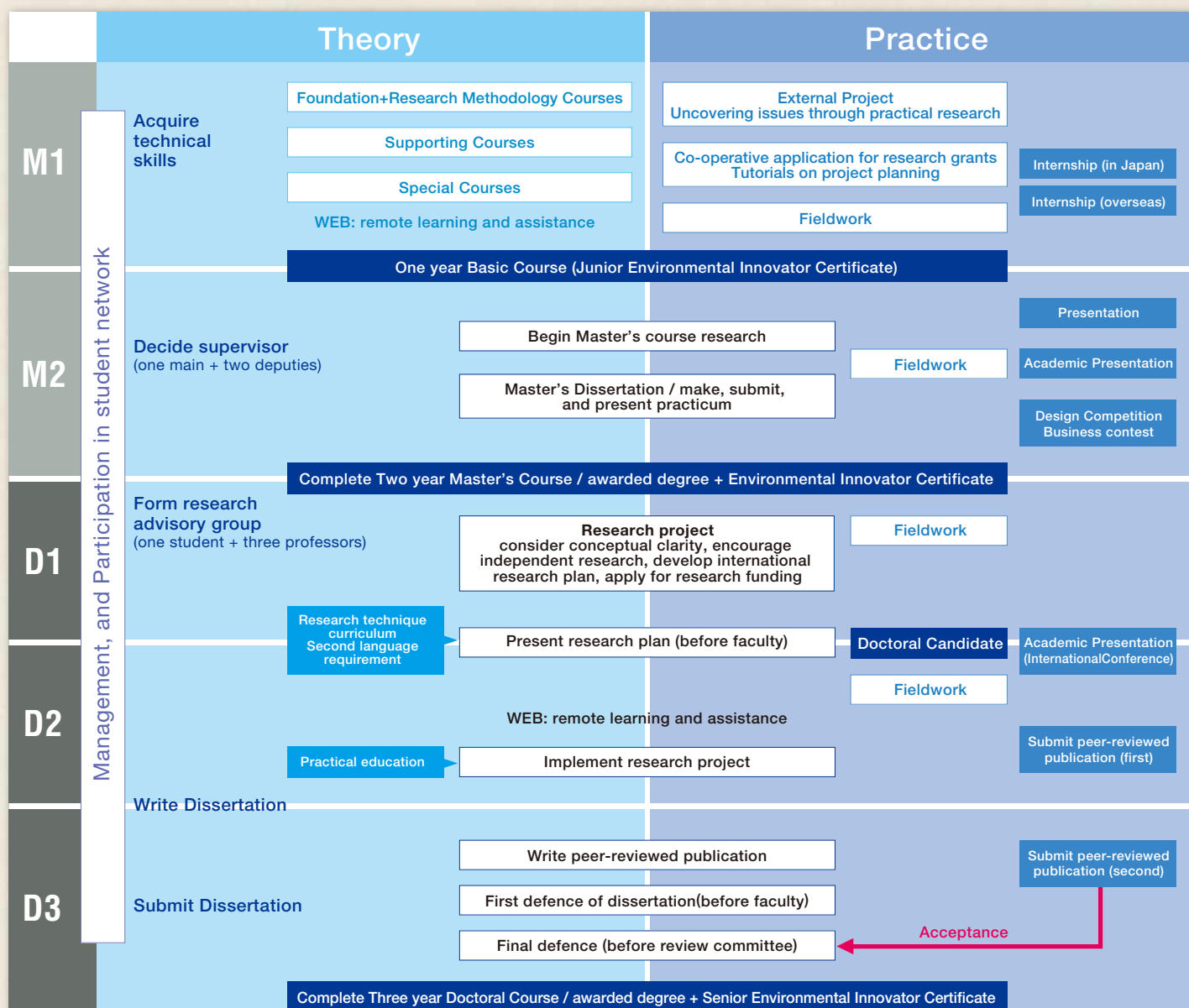
Scholarships and Research Grants

- ◎ Japanese Government (MONBUKAGAKUSHO: MEXT) Scholarship
- ◎ The Joint/Japan World Bank Graduate Scholarship Program (JJ/WBGSP)
- ◎ Graduate Student Researcher Development Grant
- ◎ Keio "Design the Future" Award
- ◎ Asian Development Bank Japan Scholarship Program
- ◎ Keio University Graduate School Scholarship
- ◎ Taikichiro Mori Memorial Research Fund



Programs

The Environmental Innovator Program offers three options for enrollment; a one year Basic course, a two year Master's degree course, and a three year doctoral course. Those who are interested in enrolling in the program should apply to take the entrance exam for the Graduate School of Media and Governance, and indicate their desire to enroll in the Environmental Innovator Program .



Certificate Requirements

In addition to a degree students may also earn an Environmental Innovators Certificate

Although students are free to take any combination of courses, to qualify for the Environmental Innovator certificate in the Master' s program it is necessary to meet a minimum standard which includes : 6 credits from fundamental courses, 4 credits from common courses, 14 credits from specialized courses, 8 credits from project courses, and 2 credits from thesis. Students must also meet with the requirements of graduation from the graduate school of Media and Governance.

Certificate for Senior Environmental Innovators

Students who graduate with a Doctoral Degree will be awarded a "Senior Environmental Innovator Certificate".

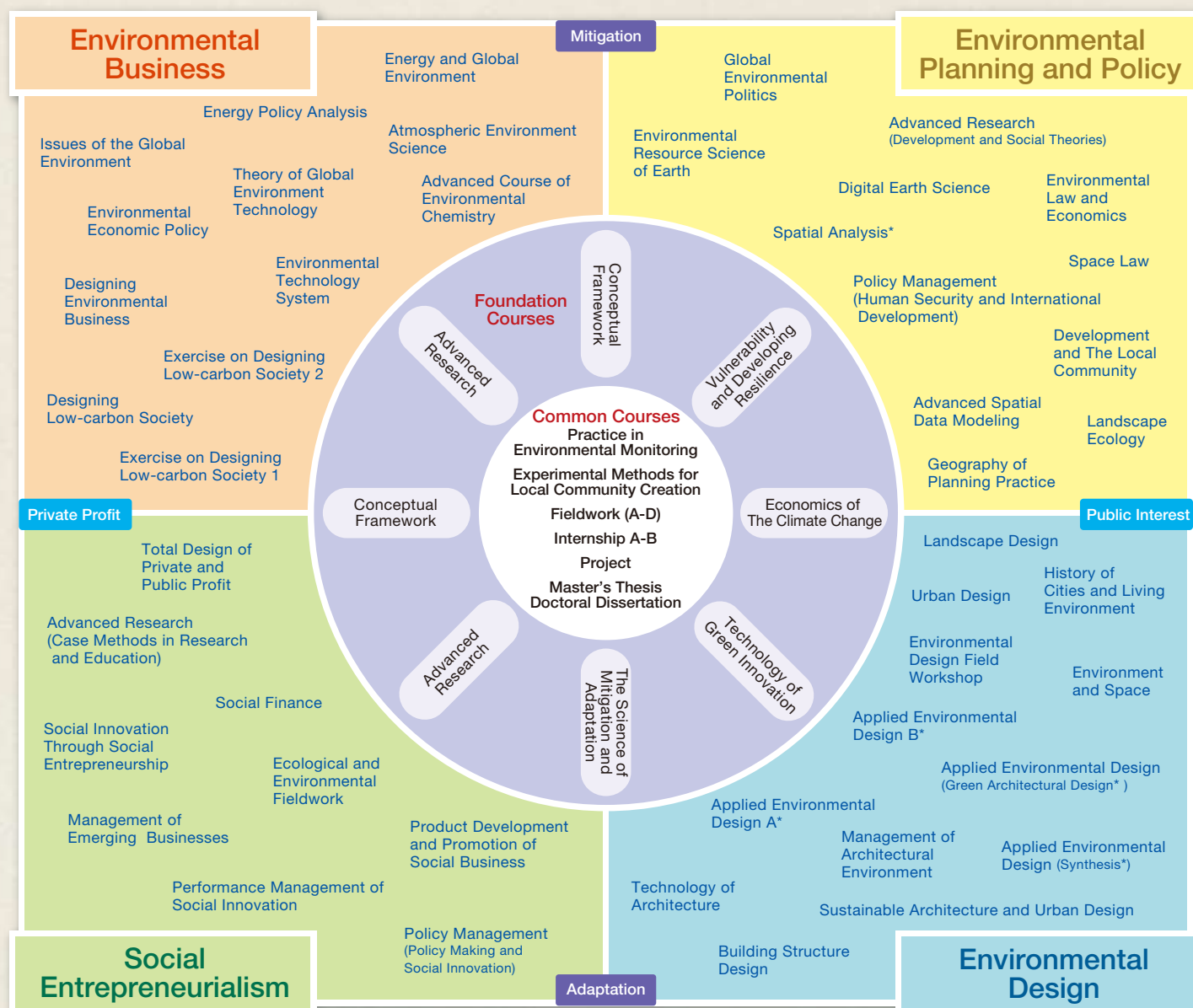
Accommodating Both Public Interest and Private Profit

In the search for solutions to the effects of climate change, tools from every sector need to be studied and mastered. Science, economics, social studies, and design are connected in the curriculum by a core set of values focusing on the creation of a sustainable environment.



Curriculum

Giving future leaders the tools they need to manage the effects of global warming. The curriculum combines a flexible research structure with progressive practice.



note: blue text = specialised subject * = 4 credit course

Project-based Learning

After completing the course on "Advanced Teaching and Learning Systems" students are able to simultaneously study *special courses* and *project courses*. Projects are designed to give students a chance to acquire knowledge and technical skills outside of the traditional classroom setting.

Leadership and Diversity

Project based learning makes us of a group of professors from external fields of study. Students in the Master's program are able to choose specialists from several field as their thesis advisors and as co-advisors.

Remote Consultation

Internet-based Projects make use of a sophisticated conference system that allows participation of experts regardless of their location.

Core Faculty

Environmental Business



Environmental System Science, Chemical Risk Management
Shizuko Ota
 Faculty of Environment and Information Studies Professor (short-term)
 Environmental Technology System, Exercise on Designing Low-carbon Society1, Exercise on Designing Low-carbon Society2, Environmental Measurement Laboratory



GIS Science, Urban/Regional Development, Sustainability Science
Wanglin Yan
 Faculty of Environment and Information Studies Professor
 Graduate School of Media and Governance
 Conceptual Framework (EG1), Digital Earth Science

Environmental Planning and Policy



Environmental Science
Kazunori Tanji
 Faculty of Environment and Information Studies Assistant Professor (short term)
 Policy Management (Human Security and International Development), Designing Environmental Business, Conceptual Framework (EG1)



Development Theory (South East Asia), Gender and Development, Social Theory
Lynn Thiesmeyer
 Faculty of Environment and Information Studies
 Graduate School of Media and Governance
 Advanced Research (Development and Social Theories), Development and The Local Community



Environmental Science
Hiroshi Shimizu
 Faculty of Environment and Information Studies Professor
 Graduate School of Media and Governance
 Conceptual Framework (EG2), Theory of Global Environment Technology



Computer Science, Distributed Systems, Operating Systems
Hideyuki Tokuda
 Faculty of Environment and Information Studies Professor
 Dean, Graduate School of Media and Governance
 Ubiquitous Computing Systems, Autonomous Distributed Systems, Open Source Systems, Advanced Research (CI)



Population Studies, Urban Studies, Housing Policies
Moriuyuki Oe
 Faculty of Policy Management professor
 Graduate School of Media and Governance
 Population Dynamics, Urban Policy



International Economics, Policy Relevant Analysis on Sustainable Development
Yoko Wake
 Faculty of Business and Commerce Professor
 Synthetic Study of Environment and Economic Analysis



Multimedia Data-base, Sensing Database, Multidatabase Systems
Yasushi Kiyoki
 Faculty of Environment and Information Studies Professor
 Graduate School of Media and Governance
 Advanced Research (CI), Multimedia Database Structures



Energy-environment systems, Harmonized systems with nature
Haruki Sato
 Department of System Design
 Engineering Professor
 School of Science for Open and Environmental Systems
 Energy Utilization, Fluid Properties



Spatial Econometrics, Tourism Studies, Urban Transportation Planning
Tomoyuki Furutani
 Faculty of Policy Management
 Associate Professor
 Graduate School of Media and Governance
 Advanced Spatial Data Modeling, Conceptual Framework (EG2)



Multimedia Data-base, Sensing Database, Multidatabase Systems
Shuichi Kurabayashi
 Faculty of Environment and Information Studies Assistant Professor
 Advanced Research (CI), IT and Environmental Studies, Regional Planning in Practice



Architecture, Urban Design
Hiroto Kobayashi
 Graduate School of Media and Governance Associate Professor
 Faculty of Environment and Information Studies
 Applied Environmental Design A, Applied Environmental Design (Synthesis), Technology of Architecture, Environmental Design Special Course



Community Management, Social Marketing, Systems Measurement Design
Masatoshi Tamamura
 Faculty of Policy Management
 Associate Professor
 Graduate School of Media and Governance
 Total Design of Private and Public Profit



Mechanical Engineering (Automotive Engineering, Advanced Vehicle Control and Safety Systems)
Manabu Omae
 Graduate School of Media and Governance Associate Professor
 Faculty of Environment and Information Studies Associate Professor
 Regional Planning in Practice



Architecture, Urban Design
Yasushi Ikeda
 Graduate School of Media and Governance Professor
 Faculty of Environment and Information Studies
 Applied Environmental Design B, Applied Environmental Design (Synthesis), Architectural Technology, Environmental Design Special Course, Advanced Research (EG1)



Landscape Ecology, Landscape Planning, Landscape Design,
Tomohiro Ichinose
 Faculty of Environment and Information Studies Associate Professor
 Graduate School of Media and Governance
 Ecological and Environmental Fieldwork, Landscape Ecology, Global Environmental Science, Advanced Research (EG2)



Architecture, Design
Hironori Matsubara
 Faculty of Policy Management
 Associate Professor
 Applied Environmental Design (Green Architectural Design), Applied Environmental Design (Synthesis)

Urban Planning, Urban Design, Place-making
Naoto Nakajima
 Faculty of Environment and Information Studies Assistant Professor
 Graduate School of Media and Governance
 Conceptual Framework (EG2), History of Cities and Living Environment, Urban Design, Environmental Design Field Workshop, Applied Environmental Design (Synthesis)



Architectural Design, Urban Planning
Darko Radović
 Department of Systems Design Engineering
 Professor
 Sustainable Architecture and Urban Design

Social Entrepreneurialism

Environmental Design

Other Faculty

Name	Affiliation	Position	Field	Name	Affiliation	Position	Field
Hitoshi Hayami	Faculty of Business and Commerce	Professor	Econometrics	Masataka Watanabe	Graduate School of Media and Governance	Special Research Professor	Environmental Policy
Issei Shinbo	Faculty of Business and Commerce	Professor	Environmental Policy	Hironori Hamanaka	Graduate School of Media and Governance	Special Research Professor	Environmental Policy
Ayumi Onuma	Faculty of Business and Commerce	Professor	Environmental Economics	Toshitatsu Kaneya	Graduate School of Media and Governance	Special Research Professor	Environmental Business
Eiji Hosoda	Faculty of Business and Commerce	Professor	Environmental Policy	Hideyuki Inoue	Graduate School of Media and Governance	Special Research Associate Professor	Social Entrepreneurship
Shunji Ikaga	Department of Science and Engineering	Professor	Architectural Environment	Yingjiu Bai	Graduate School of Media and Governance	Special Research Associate Professor	Urban Environment
Shigeru Tanaka	Department of Science and Engineering	Professor	Aerial Environment	William Galloway	Graduate School of Media and Governance	Special Research Lecturer	Architecture, Urban Design
Hiroaki Nishi	Department of Science and Engineering	Associate Professor	Information Science	Katsuhiko Asahi	Graduate School of Media and Governance	Special Research Lecturer	Physiography
Kazuyo Sejima	Department of Science and Engineering	Visiting Professor	Architectural Design	Ken Ito	Graduate School of Media and Governance	Special Research Lecturer	Social Entrepreneurship
Iwao Kaneyasu	Faculty of Environment and Information Studies	Professor	Geography				
Settsuko Aoki	Faculty of Policy Management	Professor	Space Law				

Environmental Business

Making use of resources, such as food, water and fuel, in a sustainable way is a challenge that we are only beginning to master. We are studying the use of technical systems and business design in order to find creative ways to combine environmental security with the continuing struggle to improve the quality of life for everyone living on this planet.

Research Theme

Chang River Mega Delta, and Miyako Islands, Okinawa: Vulnerability to climate change; Adaptation measures

Islands and mega-delta areas are known to be vulnerable to climate change. By researching abnormal weather patterns and measuring the social and economic impact associated with environmental deterioration, we are working towards finding strategies for adapting to future climate change.



Kazunori Tanji Supervisor

Assistant Professor, Faculty of Environment and Information Studies

In general our research is focused on technological systems and system design applied to the security and utilization of ecological services. Recent research looks to the challenge of urban revitalization, an impact assessment of the balance between food security and biofuel production, and adaptation measures in response to climate change in island areas.



Park Sero International Student

Home Country: Korea
Master's Student 2nd year, Graduate School of Media and Governance

I graduated from Yonsei University, where I studied the macro-economic impact of the wide adoption of electric cars. Environmental technologies are likely to become more important in the world, and so I have been focusing on numerical analysis of the social impact of those technologies. Currently I am studying under the guidance of two professors, each one a highly regarded expert in their field. One is professor Shimizu, an expert on electric cars, and the other is Professor Hamanaka who has long experience in environmental policy. Under their tutelage my intent is to learn about environmental business and how it is undertaken.



Environmental Information (ICT)

We are currently working on research and development for a new ICT system. Making use of sensor groups the system automatically measures and analyses changes in an environment and then quickly selects and transmits information from a knowledge base so that proper decisions can be taken.

Research Theme

Surabaya, Indonesia Monitoring High Temperature Mud-slides with ICT



Yasushi Kiyoki Supervisor

Professor, Faculty of Environment and Information Studies
Graduate School of Media and Governance

We are conducting research and development for an ubiquitous/active/knowledge-based system that is capable of automatically transmitting mobilisation guidelines in response to measurement and analysis of potential disasters and other anomalous phenomenon. For this project the concrete application is the phenomena of high temperature mud-slides that occur in Surabaya, Indonesia, and the development of a practical early warning system that will reduce damage and prevent secondary disasters from occurring.

Research Theme

A Regional Development Project That Fuses Business and Environmental Goals

We are currently focused on case study research that delves into the topic of regional development, specifically in response to the issues surrounding the rapidly aging and shrinking population of Japan. In particular we are looking at the cities of Minamishimabara in Nagasaki Prefecture and Fujiyoshida city in Yamanashi Prefecture. Being mindful of the particular issues connected to each place we are searching for qualities in the natural environment that can be used to improve regional dynamics through structural changes in policy.



Tomohiro Ichinose Supervisor

Associate Professor, Faculty of Environment and Information Studies
Graduate School of Media and Governance

In recent years experiments to revitalise and improve regional dynamics have been carried out around the world. In general, projects of this type can only become sustainable if they are linked intimately to the local conditions. In this regard a generic methodology can not lead to a real solution and instead first steps will be found within the region itself.



Si Qin International Student

Home Country: China
Master's Student 1st year
Graduate School of Media and Governance Social Innovator Course

While studying Japanese technology I examined the balance between public and private benefit with regards to the recycling of cooking oil in China. At SFC in the last 6 months my education combined theoretical coursework with fieldwork, and touched upon many fields of expertise.

Within that process I learned problem-solving techniques and methods. Personally I learned to consider problems from different viewpoints in order to find the starting point for innovation. I believe that from now on solutions to social problems, and especially environmental problems, will begin from that kind of innovation.



Social Entrepreneurialism

For Individuals and organizations profit is usually considered a private benefit. For society, and for the environment, profit takes on the meaning of a kind of public good. Our aim is to develop a sustainable framework that brings both of these points of view together. Based both domestically and internationally, we are working to support social innovation projects and proposals at every level, with involvement from individuals to local communities, organizations, and corporations.

of research projects both inside and outside Japan.
both the global and local scales.

Environmental
Planning
and Policy

This work is undertaken within the context of Asian and African cities and regions. Using the research methodologies of the natural and social sciences we are developing advanced applications of geographical information technology in order to observe and analyze environmental change. Information gathered from these efforts will be used to make policies and plans that will be resilient in the face of climate change.



Research
Theme

Environmental Assessment of Cities and Local Areas,
and Formulation of an Action Plan
for Climate Change Adaptation

As the effects of Global Warming become more apparent it is clear that we urgently need to develop effective policies of mitigation and adaptation. More, they need to be developed for all settings, from urban to rural. With the use of geoinformatic technology, our research observes and analyzes natural conditions and social characteristics in urban and rural areas, and formulates action plans for mitigation and adaptation according to the specific nature of each location.



Wanglin Yan Supervisor

Professor, Faculty of Environment and Information Studies
Graduate School of Media and Governance

There should not be any fundamental differences in climate change measures whether you are in heat island Tokyo desert or a desert in Africa or Asia. In order to build a resilient society, we must realize the strength and the weakness of each area and reconstruct social spatial system, which would be applicable to the environmental characteristics globally and locally.



Maged Bouchahma International Student

Home Country: Tunisia
Doctoral Candidate 2nd year, Graduate School of Media and Governance

SFC Keio University campus is the place where you can find all the requirements of success. In the middle of green mini-city you feel encouraged to be creative and learn more from the professor's experiences. In SFC, I got the opportunity to apply my computer background skills in environment sustainability projects and focus my research on coastal land cover/use changes detection using computer vision and remote sensing. SFC is the environment where the international students can be integrated easily. If you are the one who search to do sports, many activities are there and you can apply the proverb "A sound mind in a sound body".



In partnership with Professor Dadet Pramadihanto of EEPIS-ITS Electronics Engineering Polytechnic Institute of Surabaya, we are developing an information sharing/analysis/dissemination system. The system uses techniques for analyzing surveillance film of high temperature mudslides in the region of Surabaya, Indonesia.



Ali Ridho Barakbah International Student

Home Country: Surabaya, Indonesia
Doctoral Candidate 3rd year,
Faculty of Environment and Information Studies
Graduate School of Media and Governance

Ali Ridho Barakbah is from Surabaya, Indonesia. His research fields include Clustering (K-Means optimization, Shape independent clustering, Automatic clustering, On-line clustering), Reinforcement Learning, and Document and Image Retrieval.

Research
Theme

Mek'ele, Ethiopia: Urban Reform
and the Preservation of Historical
Architecture

Mek'ele in Ethiopia, a historic city founded in the 13th Century, is the second largest city in Ethiopia. Over its long history Mek'ele has developed unique urban spaces and a unique community. We are studying effective ways to maintain that uniqueness as we examine the preservation of historic townscapes and consider how to pass on those special social and spatial values to the next generation.



Hiroto Kobayashi Supervisor

Associate Professor, Graduate School of Media and Governance
Faculty of Environment and Information Studies

I have been examining the values and roles associated with physical spaces within society. Recently my work focuses on lifestyles in urban and rural areas, and in particular am interested in the sustainable revitalization of "local" communities.



Rumi Okazaki Japanese Student

Doctoral Candidate 1st year, Graduate School of Media and Governance

From my time as an undergraduate student, I participated in the preservation and revitalization of architecture and cities in Africa. For my Master's thesis, I studied people and their lifestyle in Mek'ele Ethiopia and how the city evolved historically in traditional spatiality. Now in the Doctoral course, I continue to study architectures and urban spaces in African countries.

Environmental
Design

From the scale of cities to rural landscapes and to architecture, we teach and practice the development of sustainable environments. Our tools include the design of ecological spaces and sustainable communities, as well as cutting-edge computer technologies.



Based at Shonan Fujisawa Campus, the program also maintains classrooms in the city centre making it accessible to mature students and international students.

Shonan Fujisawa campus

The main campus mixes high technology and natural landscapes in equal measure. In this setting communication between students and teaching staff is enhanced and kept lively with an innovative network system.



Graduate building.

City centre classrooms and remote teaching



Our flexible education environment makes use of web-based and remotely-operated systems.



Classrooms support remote education systems and are furnished with substantial AV equipment.



Student research space in graduate building Tau. Students have freedom to carry out research at their own discretion.



Room for experiments and discussion. Equipment is available to carry out experiments of all kinds.

Mita campus

Founded in the Meiji period the history and traditions of Keio University began here. Recognised as an Important Cultural property by the Japanese government, the campus maintains a strong academic character.



The original library building, built in 1912. A portrait of the university founder, Fukuzawa Yukichi can be seen on the main facade.

Yagami campus

Yagami campus often plays host to visiting researchers and exchange students, while its facilities and equipment ensure its position as a center for experimental research and study.



Built on a hill, Yagami campus is separated from Hiyoshi campus by a valley.

Hiyoshi campus

This large open campus is the gathering place for students from 7 departments and 3 graduate courses. It is well known for the Ginkgo trees that line the roads from the main gate.



Brilliant fall colors of the Ginkgo trees.