

## Group 2: Research Collaboration Collaboration in Research for Sustainable Society

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5<sup>th</sup> November, 2015  
The 3<sup>rd</sup> Japan-Indonesia Rectors' Conference  
Hosted by Hokkaido University



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Executive Vice President  
Kyushu University

# Fukuoka City: A Gateway to Asia

One of the 5 largest cities in Japan  
Largest city in Kyushu island

**Pusan, Korea: 200 km from Fukuoka**

**Tokyo, Japan: 880 km from Fukuoka**

**Shanghai, China: 890 km from Fukuoka**

**Hong Kong, China: 2,040 km from Fukuoka**

Population : 1.44 million



**1911** Established as  
the **4<sup>th</sup> oldest**  
national university



1911

**2011** Marked its **centennial**



2011





# Organization

**Undergraduate Schools (11 + 1)**

Letters, Education, Law, Economics, Sciences, Medicine, Dentistry, Pharmaceutical Sciences, Engineering, Design, Agriculture, + **21<sup>st</sup> Century Program**

**Graduate Schools (18)**

Humanities, Integrated Sciences for Global Society, Human-Environment Studies, Law, Law School (Professional), Economics, Sciences, Mathematics, Systems Life Sciences, Medical Sciences, Dental Science, Pharmaceutical Sciences, Engineering, Design, ISEE, Engineering Sciences, Bioresource and Bioenvironmental Sciences, **Integrated Frontier Sciences**

**Interdisciplinary (2)**

Education: Faculty of Arts and Science  
Research: Institute for Advanced Study

**Research Institutes (5)**

Medical Institute of Bioregulation,  
Research Institute for Applied Mathematics (RIAM),  
Institute for Materials Chemistry and Engineering,  
Institute of Mathematics for Industry (IMI),  
International Institute for Carbon-Neutral Energy Research (I<sup>2</sup>CNER)

**Research Centers (<60)**

**Over 60 Centers** cover essentially all areas of study and education

**Hospital (1)**

Kyushu University Hospital with over 1400 beds

**Libraries (6)**

**Over 4 million volumes**

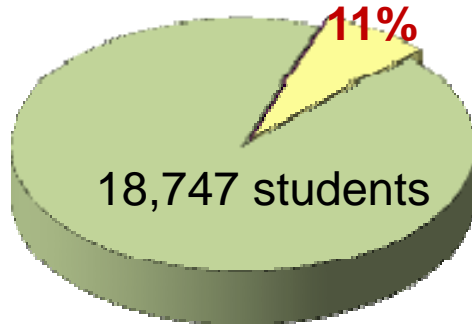
**18,747 students**

【 Undergraduate 11,844; Master/Professional course 4,201; PhD course 2,702; 】

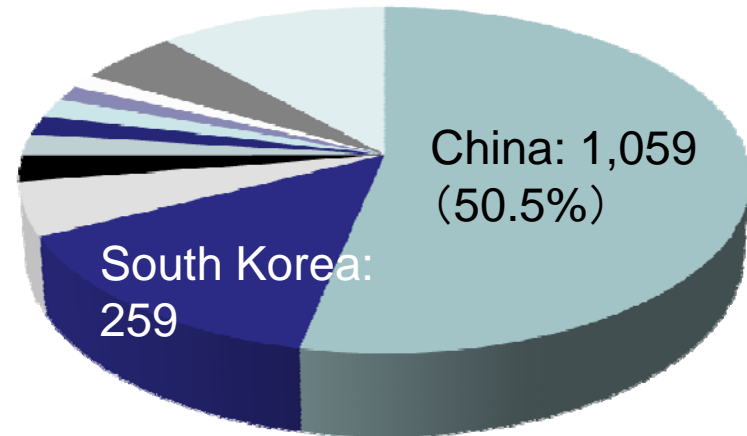
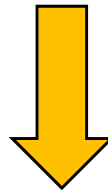
**2,097 international students**

【Undergraduate 267; Postgraduate 1418; Others 412; 】

**2,097 International students from 92 countries**



**Indonesia: 117**



Law	3
Economics	1
Medicine	3
Dentistry	7
Engineering	53
Design	2
Agriculture	13
Integrated Sciences for Global Society	1
Human Environment Studies	8
Mathematics	3
Systems Life Sciences	5
Information Science	10
Engineering Sciences	5
International Center	3
Total	117

# New challenge for the next centennial

## The Mission of Kyushu University

With continual and autonomous reforms,  
while guaranteeing educational quality  
at an **international level**,  
we will aim to be a top-level education  
and research hub marked by vitality  
and a willingness to address **future issues**.



## World Premier International Research Center Initiative



### International Institute for Carbon-Neutral Energy Research (I<sup>2</sup>CNER)

- Designed to contribute to the creation of a sustainable and environmentally-friendly society by conducting fundamental research for:
  - the Advancement of low carbon emission and cost effective energy systems and improvement of energy efficiency
  - the Advancement of CO<sub>2</sub> capture and storage technology or its conversion to a useful product



# Hydrogen Research – Top in the World

**Hydrogen Technology Research Center**



**Fuel Cell Lab**



**Fuel Cell Demonstration**



**Hydrogen Fatigue & Fracture Lab.**



**Hydrogen Exposure Lab.**



**Hydrogen Station**





# Kyushu University Hospital

Our hospital accepts 2,900 outpatients per day on average and has a hospital bed capacity that exceeds 1,400.

## Kyushu University Hospital

- Clinical Departments
- Departments, Units & Centers for Medical Diagnosis & Therapy
- Department of Pharmacy
- Department of Medical Technology
- Department of Nursing



- Clinical Laboratories, Operating Rooms, Radiology, Intensive Care Unit (ICU), Supply Center for Medical Instruments
- Division of Diagnostic Pathology
- Center for Cellular & Molecular Medicine
- Emergency & Critical Care Center, Coronary Care Unit (CCU)
- Kidney Care Unit (KCU), Comprehensive Maternity & Perinatal Care Center
- Department of Rehabilitation, Medical Information Center
- Department of Endoscopic Diagnostics & Therapeutics
- Department of Advanced Medicine & Innovative Technology
- Department of Child Psychiatry, Clinical Education Center
- Center for Clinical and Translational Research (CCTR)
- Cancer Center, Research & Clinical Center for Yusho & Dioxin
- Health Networking Center, **Telemedicine Development Center of Asia**
- Center for the Study of Global Infection
- Division of General Oral Care, Special Patients for Oral Care Unit

## Beppu Hospital

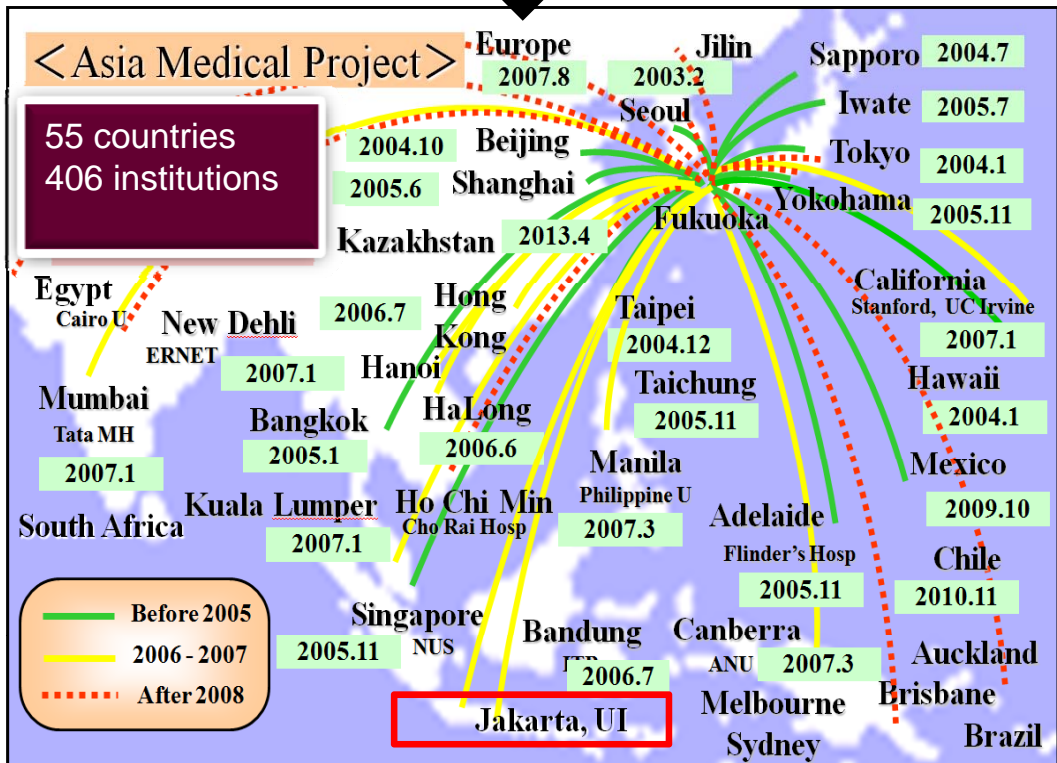
- Clinical Departments
- Departments, Units & Centers for Medical Diagnosis & Therapy
- Department of Pharmacy
- Department of Nursing

- Rehabilitation of Chronic Disease, Clinical Laboratories
- Operating Rooms, Radiology
- Supply Center for Medical Instruments
- Medical Information Center

# Telemedicine Development Center of Asia (TEMDEC)

aims to establish effective and consistent medical communications among Asian countries using super-fast Internet and advanced technology.

Connecting the World with Telemedicine Technology



Recent **live connections**: University of Indonesia  
 2015 Sep The 2nd Live Endoscopy Surgery  
 2015 Aug The 1st Live Endoscopy Surgery  
 (The 40th APAN Meeting - Indonesia session)  
 >> Shared expertise in digestive disease and endoscopic technology

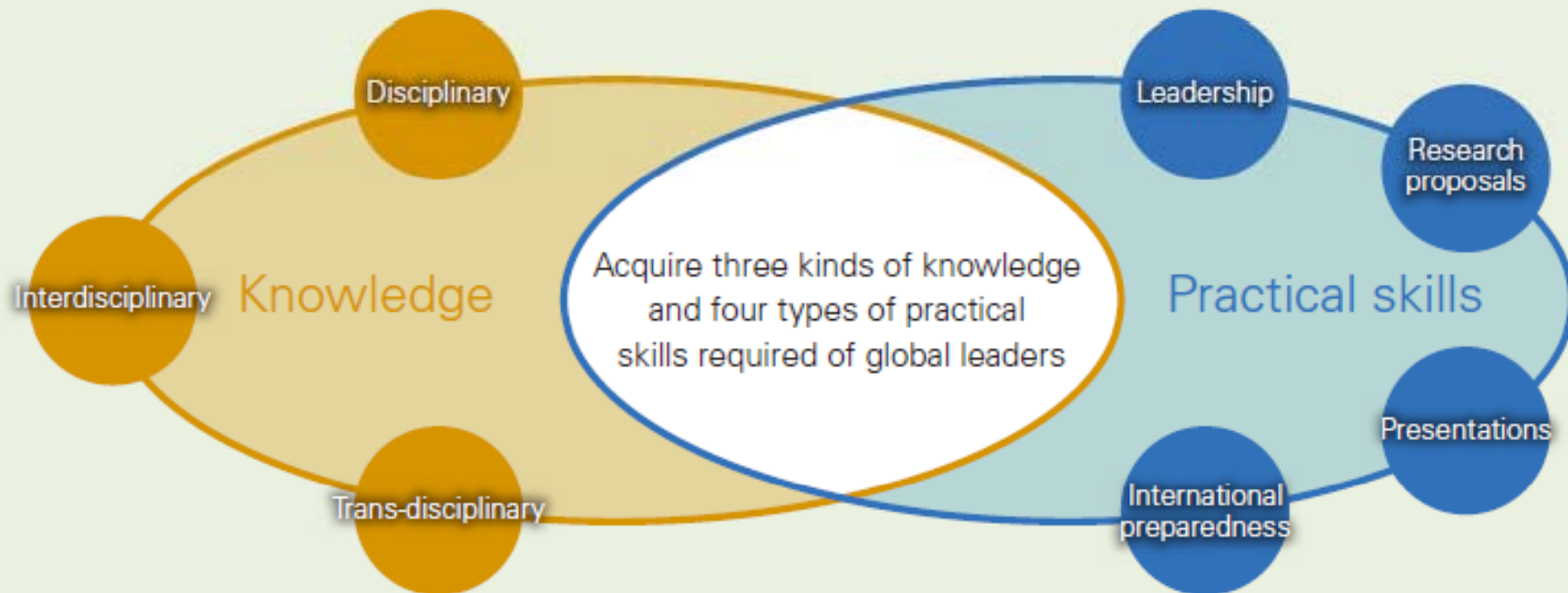


Graduate Education and Research Training Program in Decision Science for a Sustainable Society

The next generation of global leaders will need to possess different kinds of knowledge in tackling the problems of the future world: disciplinary knowledge within particular subject areas; a broad range of interdisciplinary knowledge to help bring about social sustainability; and new forms of trans-disciplinary knowledge for making the decisions that can lead to novel solutions. Those leaders will also require practical skills, which will include the ability to work across national boundaries, carry out research proposals, produce and give presentations, and also provide inspired leadership. The Graduate Education and Research Training Program in Decision Science for a Sustainable Society is a unique five-year integrated program that gives students the opportunity to develop these innovative forms of knowledge and skills.

Program Characteristics

- 1 Students explore the general scientific field of decision science, which is concerned with methodologies that lead to successful decisions, and students learn trans-disciplinary thinking skills.
- 2 Students participate in solutions-based joint international research and acquire practical, interdisciplinary knowledge through actual experience in the field.
- 3 Students acquire leadership skills through experience managing an organization of around 100 people via an organizational training workshop.





# Decision Science for a Sustainable Society

<http://ketsudan.kyushu-u.ac.jp/>

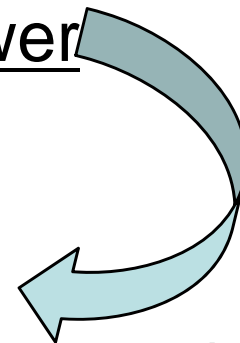
5 interdisciplinary modules:

- Environment
- Disaster
- Health
- Governance
- Human

Learning in  
Indonesia: On-site  
visit and Field trip  
for Post graduate  
students



Our Faculty of Engineering conducts  
R&D on Small-Scale Hydropower  
Generation in Indonesia



Training and Technology transfer in cooperation  
with AHB (Asosiasi Hidro Bandung)





## Earth Resources Engineering

- Environmental Geology
- Geothermal Engineering
- Mineral Processing, Resources Recycling

## Forest Conservation

- Forest Engineering
- Disaster Prevention
- Erosion Control

MOU between **FORDA** (Forest Research and Development Agency, the Ministry of Forestry, Indonesia) and the **Faculty of Agriculture, Kyushu University** was signed in Aug 2013.



# Kyushu University 's Institute of Mathematics for Industry leads **A**sia-**P**acific **C**onsortium of **M**athematics **f**or **I**ndustry

## Members of APCMfi

The fellows of APCMfi are from Australia, New Zealand, Japan, and other all over the Asia Pacific Area, form a strong and extensive network of Mathematics for Industry.

**Indonesia :**

- Institut Teknologi Bandung
- Institut Teknologi Sepuluh Nopember

**Japan :**

- Hokkaido
- Kanazawa
- Tokyo
- Kyushu

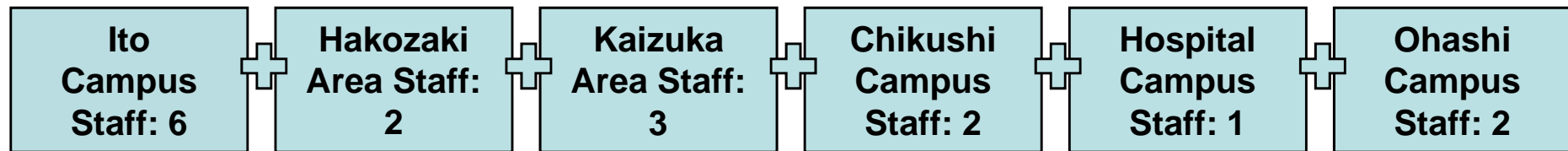




# New Challenge: Support Center

## Developing and Enhancing Systems for Accepting Students and Researchers from Overseas ~ *International Student and Researcher Support Center* ~

Located on each campus, the center provides support for **academic and lifestyle needs of overseas students and researchers** in Kyushu Univ. They also build up **local alliances** with Fukuoka Prefecture and the cities of Fukuoka and Itoshima as well as local community to enhance support system for international students.



### Support Offered

- **Procedures** for applying for the Certificate of Eligibility (CoE) to obtain a visa
- **Support for traveling** from Fukuoka Airport and other points to the dorms or university when arriving in Japan
- Information on searching for an off-campus apartment and help with moving
- Help with various procedures related to living in Japan
- Help with **translating** university documents into English
- **Interpretation** at service windows and counters
- Alliances and cooperation with international **student support teams**
- Other information for international students and researchers related to living in Japan

# New Challenge: New dorm, New campus, Living together

## New Dormitories for Future Global Leaders !!

The university has completed a new apartment-style dorm, in which **four students live together** in each (4 private rooms + common areas) unit, as well as a new dorm that houses approximately 580 students, primarily from overseas. When Japanese and international students interact, **cultural exchange** takes place, a richer level of **personal interactions** are developed, and foreign-language **communication skills** are improved. Kyushu University offers a place for students of diverse nationalities to live together. It provides an environment for constant self-improvement, and it helps promote globally oriented individuals who are capable of performing on the international stage.

Apartment-style dorm,  
Dormitory III



New dorm that houses 580 students, "Kyo-So-Kan"

## Residential Facility for International Researchers

Housed in a wooden building, this residential facility is for **international researchers** engaged in education and research at Kyushu University. About **60% of the timber** used in this three-story building was sourced from within **Fukuoka Prefecture**, as part of the prefecture's forestry development and regeneration project. It has a total of 33 residential units, with a multipurpose hall, meeting rooms, and Japanese-style rooms located on the first floor. It received the **Forestry Agency Director-General's Award** for excellence in the use of wood in a building in 2012.





**Advanced globalization** of society demands and accelerates **borderless** education and research.

**Borderless collaborations** of institutions from diverse cultures with unique characteristics are abundant, and there is **always more to learn** from each other.





# Thank you

<http://www.kyushu-u.ac.jp/english/index.php>

<http://www.youtube.com/KyushuUniv>

