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The Nagoya University Academic Charter

In recognition of the unique role of seats of learning and their historical and social missions, this document establishes the guiding principles for scholarship at Nagoya University. Nagoya University maintains a culture of free and open-minded academic endeavor and aspires to contribute to the prosperity and happiness of all people through research and education in those fields studying human beings, society, and the natural world. Above all, it aims to foster the harmonious development of humanity and science, to conduct advanced research, and to provide an education that encompasses the full range of the humanities, the social sciences, and the natural sciences. To these ends, we outline below the goals and guidelines for carrying out the required measures for continuing to perform our duties as a leading university.

1 Fundamental Objectives: Research and Education

- 1) Nagoya University, through its creative research, shall pursue truth and produce world-leading intellectual achievements.
- 2) Nagoya University, through an education that values independent thinking, shall foster individuals who possess intellectual courage, the power of rational thought, and imagination.

2 Fundamental Objectives: Contribution to Society

- 1) Nagoya University shall spearhead scientific research and foster individuals capable of exercising leadership both in the domestic and international arenas so they can contribute to human welfare, the development of culture, and global industry.
- 2) Nagoya University shall put to good use the specific qualities of the surrounding community and, through multifaceted research activities, contribute to the development of the region.

3) Nagoya University shall promote international academic co-operation and the education of international students. It will contribute to educational and cultural exchange with other countries, especially those in Asia.

3 Fundamental Policies: Research and Education System

- 1) Nagoya University shall study the humanities, society, and nature from an inclusive viewpoint, respond to contemporary issues, and change and enrich its education and research system to generate new values and a body of knowledge based on humanitarian values.
- 2) Nagoya University shall support an education system that inherits and develops intellectual resources cultivated from the world's intellectual traditions. It will promote advanced and innovative education.
- 3) Nagoya University, through disseminating information, exchanging people, and cooperating with institutions in Japan and abroad, shall create the foundation for an international academic culture.

4 Fundamental Policies: University Administration

- 1) Nagoya University shall always support scientific inquiry based on the autonomy and initiative of its members, guaranteeing them the right to freely conduct their research.
- 2) Nagoya University shall ask its members to take part in the formulation and implementation of our foundational principles for research and education and the objectives and policies for administration.
- 3) Nagoya University, aspiring to be an open and accessible university, shall promote both internal and external independent assessment and evaluation of its research, education and administration.

Greetings from the President

Nagoya University has a history of 147 years, with its roots in a temporary medical school/hospital established in 1871. Once the last university to become a Japanese Imperial University in 1939, our University has since then continued to achieve significant growth. We've maintained a tradition of having a free and vibrant academic culture, and after setting a high basic objective in the 2000 Nagoya University Academic Charter, we have worked hard to achieve that objective. The fact that 6 out of the 17 Nobel laureates from Japan who were awarded in the 21st century clearly shows that our research abilities are top class on a global scale. Nagoya University, throughout its long history, has produced many leaders in various areas of society and introduced them to the world, and thus contributed to the development and growth of not only Japan but also the world.

In recent years, our university has been focusing on further strengthening our research and educational abilities while simultaneously investing our full efforts towards internationalization, gender equality, and social contribution. In regards to internationalization, we are taking 3 different approaches. The first is to move away from a one-dimensional perspective focusing on the West towards a multi-dimensional perspective. Asia is the highest priority area. The second is the invigoration of bilateral student exchange, and the third is strengthening English education in support of internationalization. Talented individuals from around the world have gathered in our campuses, forming an environment in which students or researchers can interact with each other on a daily basis.

In addition, in regards to gender equality, our university has not only established nursery care facilities, but also pioneered the establishment of Afterschool programs for elementary school children ahead of the national universities around the country. By supporting and expanding the scope of employment of female researchers, we have been attracting talented female researchers from around the country. As the result, Nagoya University was selected, as the only Japanese university, to be one of 10 universities around the world by UN Women to support the HeForShe Campaign. Meanwhile, much has been expected of us as the core university within an area with the highest concentration of the manufacturing industry. To meet and exceed those expectations, we have cooperated closely with the government, local governments, private industries, other universities, and citizens to pursue various collaborative projects in order to create a vigorous community that is prepared to greet the future and to promote exchange with the world. Moreover we have introduced new systems for these several years and achieved great results.

Our university is a future-oriented university. And our goal is to foster human resources who have high aspirations to contribute to society, have deep specialty and broad perspectives, and are able to exhibit leadership in various fields. Innumerous challenges may await us on our path to the future, but I believe from the bottom of my heart that, together with various people from our society, we will be able to continue moving forward with courage and contribute to creating a Japan, and furthermore a world, that is bright and full of hope.

Dr. Seiichi MATSUO

- 1981 M.D., Ph.D., Nagova University
- 1986 Research Associate. School of Medicine, Nagoya Universit
- 1997 Associate Professor, School of Medicine, Nagoya University
- 2002 Professor, Graduate School of Medicine, Nagoya University
- 2004 Vice-Director, Nagoya University Hospita
- 2007 Director, Nagova University Hospital 2009 Vice-President, Nagova University
- 2015 President, Nagova University



Dr. Seiichi MATSUO Nagoya University

Nagoya University a canvas for your future



Nagoya University:

A Designated National University

Nagoya University has been selected as a Designated National University by the Japanese Ministry of Education, Culture, Sports, Science and Technology (MEXT) on March 20, 2018.

Designated universities are expected to play a role in promoting national university reform, and to actively disseminate their influence on social and economic development as well as the specific achievements of their programs

In order to carry out the above mission as a specially designated national university, Nagoya University will move forward with the efforts outlined in "Nagoya University Proposal to Become a Designated National University", contributing to world peace and society's sustainable development as a world-leading university.

The youngest of the former imperial universities, Nagoya University was founded in 1939. It is located in the Greater Nagoya Region of central Japan, the country's manufacturing belt. Our history as a comprehensive university is shortest among the seven former imperial universities and we are also the smallest. Our free and open academic culture has been the springboard for many remarkable research achievements. This is due to Nagoya University's collegial atmosphere which has nurtured a number of outstanding contributors to society. Among our alumni, for instance, are some of Japan's most prominent industrial leaders. From current and former faculty, we also can name recipients of six Nobel Prizes since 2001. Further, we lead other universities in engaging with the countries of Asia. We are also working hard to support our female faculty and staff.

As stated in the NU MIRAI 2020 policy document, Nagoya University's central medium-term goal is to rise to the rank of an elite research university. This will allow us to contribute to the peaceful co-existence and sustainable development of society. We are reforming our management so we can better develop talented people who will lead the next generation. To stimulate innovation and contribute to the search for truth, our faculty members pursue groundbreaking research.

Based on the NU MIRAI 2020 plan, and taking advantage of our strengths, we will:

- Set up research hubs to lead their respective fields
- Train Ph.D. graduates to play leading roles in advancing our knowledge-based society
- Make the campus environment more international
- Develop a comprehensive management network within ten years to support and promote transfer of fundamental research success into technical achievement
- Encourage innovation in collaboration with industry

To achieve these aims, we want to manage our university based on the principle of shared governance; create a positive cycle for generating revenue to strengthen our finances; and establish a multi-campus system. Nagoya University aims to join the global elite of research universities through the following seven points.



Nagoya University — a canvas for your future 05

Nagoya University Matsuo Initiatives for Reform, **Autonomy and Innovation 2020**

Education

By promoting a world-class education, we aim to foster courageous intellectual leaders that can contribute to human well-being. We are changing the relationship between Nagoya University and secondary schools.

- Admitting excellent students Improving admission system and establishing admission center
- Reforming three policies Degree conferment, curriculum design & student admissions
- Improving international compatibility of educational system

Introducing quarter system and international joint degree programs

International

We are developing a university that attracts the best students, faculty & staff from around the world & contributes to creating a more sustainable society. In particular, we seek to work closely with countries in Asia.

- By 2020
- Increasing number of international students to 3000
- Increasing internationally experienced faculty members to 650
- Increasing domestic students studying abroad to 1000
- Increasing international students enrolled in English-taught curriculum & number of English-taught courses

i.e. G30 NEXT

Implementing strategies with focus on

i.e. Asian Satellite Campus & ASEAN Net PLUS

Research

Inspired by our Nobel laureates. we are committed to the creation & discovery of knowledge through research.

- Supporting frontier research led by
- •"Institute for Advanced Research" for basic research
- •"Institute of Innovation for Future Society" for practical research
- •"ITbM" for WPI program
- Establishing new research centers i.e. WPI-Next
- Recruiting, retaining & supporting most talented faculty & fostering world-class researchers

Greater support for women, non-Japanese & early-career

NU MIRAI 2020

University-Industry Collaboration

As a core university located in one of the world's most dynamic industrial clusters, we conduct research and pursue innovation that contributes to value creation for betterment of society.

- Establishing a new
- "industry-academia-government collaboration" to implement open innovation

Establishing new research center on gallium nitride (GaN) & "Future Integrated Electronics Research Center"

• Fostering people who contribute to society

Increasing entrepreneurial education & industry-academia collaboration

• Increasing regional resilience for safety & disaster relief

Establishing Disaster Mitigation Research Center & new model for industry-academia-government-civil society collaboration

Organizational Management

- Reforming structures of Schools/Graduate Schools Strengthening education and research activities through comprehensive evaluation of the fields of engineering, informatics, humanities & social sciences
- Strengthening financial base

Raising 10 billion yen fund by 2021, increasing competitive funding, promoting joint research projects through industry-academia collaboration & strengthening hospital activities

- Improving university-wide communication to more effectively & flexibly assign resources
- Collaborating with Asia and wider world to promote gender equality on campus Establishing Gender Equality Promotion Center, increasing female faculty members to 20% &

promoting women in leadership positions

Nagoya University Aims for "The World's Best Research University" - Seven Visions to Support It -



Becoming an elite research university that produces world-leading research



Building on the track record displayed by our Nobel Prize winners, Nagova University will establish new research hubs (Stage III research). These wil be modeled on our successful Institute for Transformative Bio-Molecules (ITbM) WPI research center and the Kobayashi-Maskawa Institute for the Origin of Particles and the Universe (KMI). To develop such research hubs, we recognize the importance of encouraging young researchers and founding new academic fields. To meet these needs,we plan to provide multitier support optimized for different research achievements. This includes Stage I support for young researchers and Stage II support for training next-generation research leaders. These efforts will include interdisciplinary studies linking researchers in different schools within the university, including the humanities and social sciences, so they underpin future society.



Training outstanding doctoral researchers to lead our knowledge-based society



Training PhDs is our core mission. We will build on our track record of success in the Leading Graduate School Programs and the Institute for Pron Doctoral Education. We aim to train our PhDs in three core skills:

- the capacity to address new challenges in research
- the capacity to communicate with an international audience
- the capacity to connect with society

We will provide interdisciplinary education by collaborating with research hubs: developing international networks by expanding our joint degree programs; and training students in transferable skills. At the same time,

we will promote a new approach to postgraduate education involving close collaboration between industry and university called the Sharing Education Initiative. Financial support for Ph.D. students will increase using a special fund, and career paths for graduate students will be promoted.



Creating an international campus that attracts

people from around the world,



Nagoya University aims to increase our intake of international students to 3,200 in ten years. We will also expand opportunities for Japanese students to enroll in English-Taught courses offered in our G30 international programs. Also, we aim to increase the proportion of students who experience study or training abroad to 70 percent. The recently established Applied Social System Institute of Asia (ASIA) is a platform that facilitates research cooperation with scholars throughout Asia to solve problems of a global scale. Nagova University will benefit from greater international cooperation by increasing faculty and student awareness of global issues. A more international campus will also help attract students, faculty and administrative staff from 03



Developing synergies outside of academia



Nagoya University aims to take advantage of its location in one of the world's premiere manufacturing belts. We will increase the responsibilities of URAs, along with unifying management of research and technical support for innovation creation, training personnel, and contributing more to industry. By encouraging industry, university and government to cooperate, we are setting up education programs that take full advantage of cross-sector cooperation. We will form

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research and development centers for "open innovation." New research labs and a center for collaborative industryacademia research will introduce a true organizational partnership. Last, we plan to bolster support for entrepreneurship education and university-based start-up companies.



Presidential Leadership and a Flexible System for Proposing, Debating, and Enacting Policies through Shared Governance

The university will appoint a provost responsible for education and research under the university president. Under shared governance, the board of trustees and those leading each school can share responsibilities. The Office of Institutional Research will also fulfill the following roles:

Summarizing information about university management and collecting information from students and other members of the community

- Proposing measures based on data analysis
- · Training personnel as future managers

We wish to design and manage Nagoya University so it can respond to political, economic and social change. Importantly, we will continue to strengthen policies promoting gender equality. For the future, we must also nurture faculty who can become administrators through university design workshops. Enhancing training of faculty and staff is essential for developing a university that serves society's needs.

Strengthening our financial basis through a positive cycle of management resources

Nagoya University contributes to Japan's economic growth by creating knowledge and developing human resources. This attracts management resources which we can then invest in creating more knowledge and developing more human resources in a positive cycle. To support this, further deregulation is necessary so we can diversify our sources of revenue and continue our drive for greater efficiency. Nagoya University seeks to increase its budget size 1.4 times, or, by 40 06



Creation of Positive Cycle for Continuous Development with the New Multicampus Tokai National University System

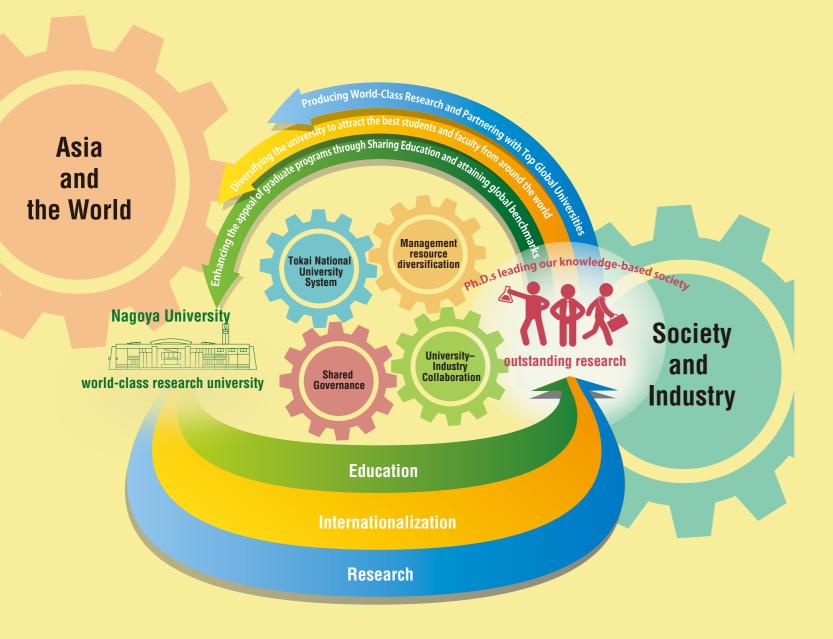
Nagoya University plans to remove institutional barriers with our partner universities and establish a new regional multi-campus system. The provisional name is the Tokai National University System. Member universities in this group will preserve their autonomy. But each will contribute to the organization by strengthening education and research functions. Our hope is that the strengthened education and research functions will contribute to world peace and sustainable development. Greater economies of scale will make it easier for the acquisition of

external funds, strengthen international competitiveness and form one of the world's leading national university organizations.

Nagoya University – a canvas for your future 07 Nagoya University

Nagoya University

- Aims for One of the World's Best Research Universities -



Education

Institute for doctoral education to train students in 3 core skills: ability to take on ground-breaking research, international communication proficiency, ability to use research skills to the benefit of society Dynamic state-of-the-art interdisciplinary education that works in tandem with

multi-tiered research system

Internationalization

- Further development of Joint Degree Programs (JDPs)
- Increase the number of international students and faculty through expanding and developing programs taught in
- Working in Asia to solve the world's problems through the activities of the **Applied Social System Institute of Asia**

Research

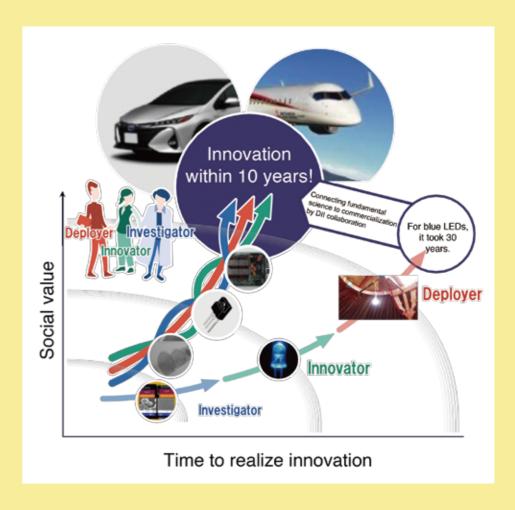
Continuous production of world-class research sustained by a multi-tiered research system in three stages.

Discovery recruiting and support of outstanding young researchers

Development of the next generation research hubs

Construction of world-leading research

DII Collaborative Graduate Program

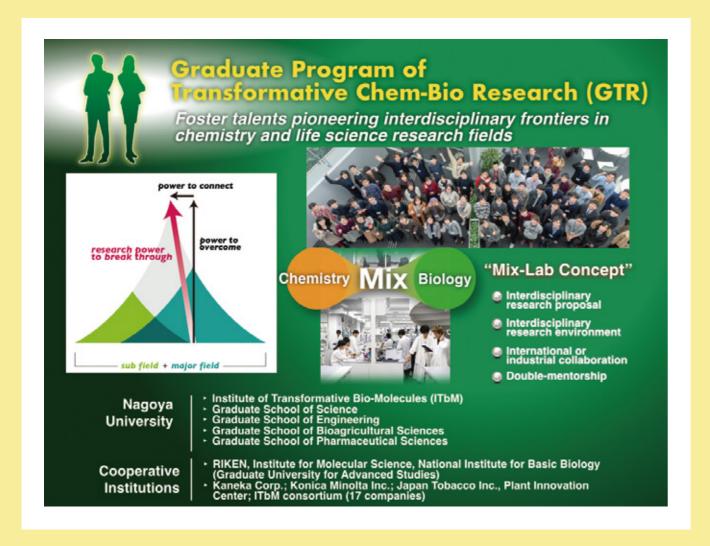


Welcome to the new DII-Cooperation Program designed for graduate students of the School of Engineering. This is a coordinated program designed to cultivate people who can shorten the time to realize innovations, which has conventionally taken 30 years, to within 10 years.

In this program, three different kinds of students, namely those aiming to become entrepreneurs, industrial engineers, or researchers, will be developed. In this program, we refer to entrepreneurs as deployers, industrial engineers as innovators, and researchers as investigators. In many previous programs for graduate students of the School of Engineering, the purpose of their education has mainly been to develop researchers. These previous programs were not sufficient to nurture people who can realize innovations within 10 years. Cooperation among investigators, innovators, who can establish mass-production technologies of the state-of-the-art research outcomes, and deployers, who can generate social values of the products for commercialization, will shorten the time to realize innovations. One of the characteristics of this program is that not only the Faculty of the School of Engineering, but also researchers of private companies and national institutes will join as mentors of the students. People working at entrepreneurial support companies will join as mentors for students who are seeking to become deployers. Also, for students seeking to become innovators, people working at manufacturing companies will assist them in this program as mentors. Faculties of different research fields will cultivate students who are seeking to become investigators. These three different kinds of students will cooperate and experience doing research, development, and business. A new degree different from a PhD will be given to students who finish the DII-Cooperation Program. Students who do not belong to the School of Engineering and are interested in this program may join a one-year DII-Cooperation

The Faculty of the School of Engineering has high expectations that peoples with the DII degree will become world leaders and contribute to solving global issues and improving people's lives.

Graduate Program of Transformative Chem-Bio Research (GTR)



Our new graduate program, GTR (Graduate Program of Transformative Chem-Bio Research), aims to train scholars who will pioneer interdisciplinary frontiers in the areas of chemistry and life science. In order to achieve sustainable development of society, many challenges must be overcome, including environmental and energy problems, stable food production, the development of materials leading to industrial and technological innovations, and life science research that contributes to health. To address these issues faced by science and society, the roles of chemistry and life science research are becoming increasingly important. To breakthrough these issues, both advances in research in each field and promotion of interdisciplinary research is necessary.

To bridge the gaps between traditional disciplines, we need outstanding "research power to break through," which consists of two elements: "the power to overcome" and "the power to connect." The former is based on experience, confidence, and solid practical skills that can be fostered through promoting and accomplishing high-quality research on important topics. On the other hand, the latter leads to the creation of innovative ideas through free and vigorous discussions across research

The GTR program provides a practical course for acquiring these important research capabilities through challenging and exciting interdisciplinary research in diverse research environments in which each student benefits from the guidance of two mentors.

Excellence in Research Fostered by a Free and Vibrant Academic Culture



Six Nobel Laureates Demonstrate Nagoya University's World-class Research Excellence



New Flagship Research Initiatives

Institute of Materials and Systems for Sustainability (IMaSS) National Composites Center (NCC) Disaster Mitigation Research Center (DMRC)

Mobility Innovation Center (Nagoya University COI) - Empowering an aging society through advanced mobility -

Six Nobel Laureates Demonstrate Nagoya University's

World-class Research Excellence



Dr. Isamu AKASAKI

Research Associate, School of Engineering, Nagoya University

1964 Ph.D., Nagoya University

University Professor, Nagoya University



Dr. Hiroshi AMANO

Graduated from School of Engineering, Nagoya University

Professor, Graduate School of Engineering Nagova University

Since entering the 21st century, 17 researchers from Japan have received a Nobel Prize. Among these, six are graduates of or have been affiliated with Nagoya University as faculty members during their career. This number of Laureates is the highest in Japan.

It is said that the main reason for Nagoya University's surge of progress in this area is its free and vibrant academic culture. Of the seven former imperial universities, Nagoya University was founded last. Faculty at that time came to Nagoya from all over Japan; they helped students and young researchers pursue their research freely, and this academic culture has been inherited by today's generation. We will now give an introduction of each Laureate as follows.

Nobel Prize in Physics, 2014

In October 2014, the Royal Swedish Academy announced its awarding of the Nobel Prize in Physics to Dr. Isamu Akasaki, Dr. Hiroshi Amano and Dr. Shuji Nakamura for the invention of the efficient blue light-emitting diode (LED), which enables bright and energy-saving white light sources. In the spirit of Alfred Nobel, the Prize rewards inventions of great benefit to mankind and, indeed, the blue LED has led to the revolution of indoor and other lighting by making this kind of white light possible. With the advent of LED lamps, lightbulb technology has made a quantum leap not only in energy efficiency but also in durability.

Dr. Akasaki began his career in academia as a Research Associate at the Nagoya University School of Engineering in 1959, eventually advancing to Associate Professor while working on his PhD from Nagoya University, which he obtained in 1964. Following this, he worked in the private sector before returning to Nagoya University as Professor of Engineering in 1981. Dr. Akasaki moved on to the neighboring Meijo University in 1992, but in December 2004 was reappointed by Nagoya University as a Distinguished Professor

Dr. Hiroshi Amano graduated from the Nagoya University School of Engineering in 1983 and, after obtaining his PhD in 1988, was appointed Research Associate at Nagoya University, advancing to Assistant Professor. He then joined Dr. Akasaki as a Professor at Meijo University, before returning to Nagoya University's Graduate School of Engineering.







Dr. Rvoii NOYORI

Associate Professor of Chemistry,

1997-1999 Dean, Graduate School of Science School of Science Nagova University

University Professor



Dr. Toshihide MASKAWA

Graduated from School of Science,

Ph.D., Nagoya University

Distinguished Invited

University Professor

Nagoya University

2007-

Dr. Makoto KOBAYASHI Dr. Osamu SHIMOMURA

1972 Ph.D., Nagoya University

1960 Ph.D., Nagoya University

Associate Professor School of Science, Nagova University

Nagova University

2009-2018



Dr. Maskawa and Dr. Kobayash



At the 3rd Yoshimasa Hirata Memorial Lecture

Nobel Prize in Chemistry, 2001

In October 2001, the Academy announced its award of the Nobel Prize in Chemistry to Dr. Ryoji Noyori and Dr. W. S. Knowles (USA) for their work on chirally catalyzed hydrogenation reactions, and to Dr. K. B. Sharpless (USA) for his work on chirally catalyzed oxidation reactions. Their research – an important topic of study in the 20th century – enabled Dr. Noyori and his fellow laureates to realize their dream of making possible the artificial and preferential production of enantiomers. Enantiomers are molecules existing in many organic compounds that are mirror images of each other but not identical, i.e., with a right- and left-side relationship but with each side having a different character. While one side could become a promising medicine, the other could equally become a dangerous toxin. It has therefore become a major issue in chemistry to find ways to preferentially produce right- and left-side products. Dr. Noyori's research makes it possible to artificially produce right- and left-side molecules using catalysts. This research has tremendous potential in the creation and production of medicines, aromatic chemicals, and materials in harmony with the natural environment.

Presently, Dr. Noyori is an organic chemist based at Nagoya University and Director-General of the Center for Research and Development Strategy (CRDS), Japan Science and Technology Agency (JST) and continues to realize remarkable achievements in the field of organic chemistry through his collaborations with numerous researchers worldwide.

Nobel Prize in Physics, 2008

In October 2008, the Academy announced its award of the Nobel Prize in Physics to three esteemed scientists: Yoichiro Nambu (USA), and Nagoya University graduates Toshihide Maskawa, a Distinguished Invited University Professor at Nagoya University, professor emeritus at Kyoto University, and professor of physics at Kyoto Sangyo University, and Makoto Kobayashi, professor emeritus at the High Energy Accelerator Research Organization (KEK). The two Nagoya University scientists received the Nobel Prize for forecasting, over three decades ago, "the discovery of the origin of the broken symmetry which predicts the existence of at least three families of quarks in nature." In 1972, the two presented their Kobayashi-Maskawa theory, which states that CP symmetry violation can be explained with six types of quarks, one of the subatomic particles that constitute matter. This theory was proved in 1995 with the discovery of the sixth quark, known as the top quark. Among the numerous theories attempting to explain CP symmetry violation, the Kobayashi-Maskawa theory remains the most concise and well-formed, and today is one of the key components of the standard model of particle physics.

Nobel Prize in Chemistry, 2008

In October 2008, organic chemist and marine biologist Professor Osamu Shimomura from Nagoya University was announced as one of three distinguished scientists to receive the 2008 Nobel Prize in Chemistry, sharing it with Martin Chalfie of Columbia University and Roger Y. Tsien of the University of California, San Diego. They received this award for the discovery and development of the green fluorescent protein, GFP. Professor Shimomura was the first to discover and successfully refine GFP in luminous jellyfish. Using this GFP as a marker, it is now possible to directly observe protein behavior in living cells. This significantly contributes to the development of molecular biology and biosciences.

New Flagship Research Initiatives

Institute of Materials and Systems for Sustainability (IMaSS)



About IMaSS

In order to contribute toward the realization of a safe and sustainable future society amidst global-scale environmental and resource-related restrictions, the Institute of Materials and Systems for Sustainability (IMaSS) promotes research ranging from materials and electronics science to systems technologies.

IMaSS consists mainly of 2 research centers and 2 research divisions, along with several other funded and collaborative labs.

Center for Integrated Research of Future Electronics (CIRFE) focuses on the development of power devices for reducing electric power consumption, and research consortiums are steadily being arranged throughout Japan. Nagoya University is well known for the achievement in gallium nitride semiconductor technology, and collaborations with various research groups within and beyond country boundaries are being strongly promoted.

Advanced Measurement Technology Center (AMTC) specializes in research and development of basic sciences using the electron microscope technologies and also other advanced facilities. The center aims to explore and develop novel measurement techniques, operate multi-user instruments, provide opportunities for collaborative research, and train highly skilled scientists and engineers.

Division of Materials Research (DM) carries out research on advanced materials that are applied to devices for future energy systems, while Division of Systems Research (DS) is engaged in developing systems technologies toward practical deployment in the society.

Funded Research Divisions and other Industry-Academia collaborative labs are devoted to respective researches in cooperation with the research centers and divisions of IMaSS.

Center for Integrated Research of Future Electronics,





Organization chart

Device Innovation Section Multiphysics Simulation Section Materials Nano-Characterization Section System Applications Section ternational Research Section

Electron Nanoscopy Section Electromagnetic Wave Measurements Section Elementary Particle Measurements Section X-Ray Spectroscopy Section Nanofabrication & Characterization Section

Materials Physics Section **Materials Design Section** Materials Processing Section

Conversion Systems Section **Network Systems Section** Circulation Systems Section

Director

nergy Systems (Chuhu Flectric Power)

Toyota Advanced Power Electronics

AIST-NU GaN Advanced Device

Toyota Advanced Power Electronics Industry-Academia Collaborative Chair

DENSO Automotive Power Electronics Industry-Academia Collaborative Chair

TOYODA-GOSEI GaN leading Innovative R&D Industry-Academia Collaborative Chair

Center for Integrated Research of Future Electronics Transformative Electronics Facilities 【C-TEFs】

High Voltage Electron Microscope Laboratory [HVEM]

Research Facility for Advanced Science and Technology [RFAST]

New Flagship Research Initiatives

Institute of Transformative Bio-Molecules







Corn field infested by the parasitic plant Striga

What is WPI?

The WPI program was launched in 2007 by the MEXT with the aim to build "globally visible" research centers with high research standards and an outstanding research environment that will attract frontline researchers from around the world to carry out their research at the centers. The WPI has four objectives: (1) advancing leading-edge research, (2) creating interdisciplinary domains, (3) establishing international research environment, and (4) reforming research organizations. A total of 13 WPI centers have been selected up to now.

Institute of Transformative Bio-Molecules (ITbM)

The Institute of Transformative Bio-Molecules (ITbM) was launched at Nagoya University in December 2012 and is supported by the World Premier International Research Center Initiative (WPI), the flagship program of the Japanese Ministry of Education, Culture, Sports, Science and Technology (MEXT).

ITbM aims to create a new interdisciplinary field of research through the collaboration of cutting-edge molecular synthetic chemistry, animal/plant biology, and theoretical science, and to deliver bio-molecules to solve urgent problems, such as environmental issues, food production and medical technology that have a significant impact on the society. ITbM has set up "Mix Labs", which are lab spaces where synthetic chemists and animal/plant biologists work next to each other, along with theoretical scientists situated nearby to enable interactive discussions. This has led to effective mixing of research areas by integrating researchers from different disciplines, and many collaborative research projects have emerged in a bottom-up manner.

"Combating Striga"

ITbM has been engaging with high priority on the project "Combating Striga". Striga is a parasitic plant that causes drastic damage to agriculture in Africa. Striga is a major threat for food crops, leading to huge yield losses (worth over 10 billion US dollars) and affecting over 100 million people. Striga recognizes strigolactones (SLs), which are plant hormones released by plants, and this hormone initiates germination of Striga seeds and parasitization towards the host plant.

ITbM's chemists and plants biologists have worked together, and have rapidly developed a molecule "Yoshimulactone green (YLG)", which exhibits green fluorescence upon binding to the receptor associated to the germination process of Striga. This achievement resulted in the identification of the unrevealed SL receptor of Striga, and led to the development of the exceptionally active biomolecule sphynolactone-7 (SPL7). The SPL7 acts as an agonist for the SL receptor of Striga to induce germination in a femtomolar (10-15) range. ITbM's research team is planning to extend the discovery to the field trial of SPL7 in Kenya in collaboration with International Center for Research and Education in Agriculture (ICREA), Nagoya University.

[References] "A femto-molar range suicide germination stimulant for the parasitic plant Striga hermonthica" by D. Uraguchi, K. Kuwata, Y. Hijikata, R. Yamaguchi, H. Imaizumi, Sathiyanarayanan AM, C. Rakers, N. Mori, K. Akiyama, S. Irle, P. McCourt, T. Kinoshita, T. Ooi, Y. Tsuchiya, Science, 2018, 362,1301-1305 (DOI: 10.1126/science.aau5445)

New Flagship Research Initiatives

Human Machine Harmonization System (HMHS) Consortium

[How is the consortium organized?]

This consortium offers an environment that fosters open innovation driven by the collaboration between four public research institutions (Nagoya University, Waseda University, Tokyo Institute of Technology, National Institute of Advanced Industrial Science and Technology (AIST)) who play a key role in research on "Harmoware", a system advocating for the harmonization of relations between humans and intelligent machines. These research institutions collaborate with a wide variety of companies to develop applications (service products) that operate with the "Harmoware".

[What can member companies do?]

Member companies can conduct joint research on the concept of the open-source basic software "Harmoware" and on the development of applications that operate with it. They can also conduct closed-access research for product development. Member companies who are not involved in the joint research can learn about what projects are included and what kind of research is being conducted in other programs.

[Where will the research be conducted?]

Each respective research institution serves as a research site when joint research is conducted on an individual basis. Laboratories (testbeds) provided for common use by the member institutions are available for joint research projects. (Please follow the guidelines provided by each research institution when using common-use laboratories)



Differences from Conventional Joint Research

- (1) Open platform collaboration across a variety of industries
- (2) "face-to-face" operation by graduate students implementing practical application of their developments in society
- (3) Research acceleration made possible by government funding
- (4) Support for a wide range of research projects

HMHS Key Technologies

This consortium provides a platform to consider a society in which humans and intelligent machines live harmoniously with one another. Self-driving vehicles are one example of intelligent machines we can think of today. The software used in these cars, "Autoware," is an open-source basic software developed for self-driving vehicles. To develop "Harmoware," We will utilize various kinds of intelligent machines to create another basic software that can provide services in which these machines can work harmoniously with humans. This new harmonization service platform will be able to detect human conditions, reference databases to understand human actions, and work accordingly. In this consortium, our research will progress under the following four pillars.

- (1) Development of human sensing technology to detect human conditions by downsizing and integrating technologies of chemical sensors, etc.
- (2) Development of technology to protect intelligent machines and their data from malicious attacks.
- (3) Development of technology that responds to human actions while maintaining a harmonization of relations between humans and intelligent machines.
- (4) Creation of databases and modelization of situations that will serve as reference for evaluating human conditions in changing environments.

National Composites Center (NCC)

On April 1, 2012, the National Composites Center (NCC) was established at Nagoya University. Although the carbon fiber (CF) manufacturing industries in Japan are considered to be one of its strongest fields, holding a 70% share of the world market, we cannot necessarily state that Japanese carbon/polymer composite processing industries are sufficiently strong when compared with their European counterparts. In order to energize these composite processing industries and promote the innovation of related technologies, a budget for Nagoya University from the Ministry of Economics, Trades and Industries (METI) was approved in 2011, and installation operations for NCC began. NCC activities focus on automotive and aerospace industries, which are based in the Greater Nagoya Area and which lead the world in their respective fields.



automotive industries has already begun. 10 Japanese companies, including automotive, carbon fiber, and automotive parts companies are participating in this project to develop a technology to manufacture large structures using thermoplastic CFRP produced by LFT-D (Long Fiber Thermoplastic-Direct) technologies, which will enable high productivity and low cost processes for future automotive industries. Main facilities in NCC are the hydraulic press machine (35,000kN) with twin extruder (LFT-D device). Figure 1 shows the full-scale LFT-D chassis structure consisting of LFT-D parts including floor panel, side sills and front and rear parts which are joined together using ultrasonic welding technology. These results indicate the advantages of the LFT-D technology, especially in comparison with conventional CF/thermoplastic technologies, which have difficulty making such three-dimensional complicated shape. From 2018fy, new subjects of LFT-D/T-RTM Hybrid process, Prediction of LFT-D Material Properties and CFRTP Recycle Technologies are being undertaken. Another project is being focusing on the development of composite structure evaluation technologies, especially for lightning tests on aircraft.

A national project aiming at applying thermoplastic CFRP to

Figure 1 LFT-D Chassis Structure

Disaster Mitigation Research Center (DMRC)





The Disaster Mitigation Research Building

The Disaster Mitigation Research Center (DMRC) was founded in December 2010. Nagoya City and the surrounding Chukyo area are vulnerable to natural hazard risks due to the high possibility of large earthquakes along the Nankai Trough plate boundary. The Japanese government estimates the probability of the occurrence of the next large earthquake during the next 30 years as 70% to 80%, and the worst-case scenario predicts that economic losses will reach as much as 220 trillion yen. The area also has a history of destructive floods and storms. Since this area is the center of industrial production in Japan, these natural hazard risks may cause a serious crisis at a national level. The DMRC, which brings together experts with various backgrounds such as engineering, earth science, social science and humanities, promotes cooperative multidisciplinary research for developing a state-of-the-art disaster mitigation model and applying it to ensure safety and security of the local community. The DMRC provides a cooperative framework for local government, companies, and citizens to improve the preparedness of the local community for future natural hazards. In addition, the DMRC offers disaster mitigation training courses for local public officers and volunteers. The Gensaikan Building, where the DMRC is located, has an exhibition hall and a library, which are open to the public for self-learning about natural disasters and their mitigation.

Mobility Innovation Center (Nagoya University COI)

- Empowering an aging society through advanced mobility -





Slocal Self-driving System offers mobility to those that ca drive and supports so called "last mile" transportation

Japan has already shifted to become a super-aging society. In order to retain and enhance the sustainability of our society, it is important to encourage activities that can prevent the mental and physical depression of seniors. Mobility is not only limited to transportation or automobiles, but also represents the ability to move freely and safely. To make a sustainable aged-society a reality, it is essential that seniors are able to lead active life styles regardless of age, region, or individual situations.

To empowering an aging society through advanced mobility, we implements innovative technologies with three pillars of 1) Driving Assistance System and Autonomous Cars for safe and reliable mobility, 2) Physical Conditions and Mental Inspiration to stimulate going outside, and 3) Participatory Society to foster mutual aid and self-esteem.

Nurturing Future Global Leaders



Top Global University Project
- An Asian Hub University Contributing
to a Sustainable Society in the 21st Century



The Development of Joint Degree Program



Nagoya University Overseas Take-off Initiative (NU-OTI)



Fresh Insights, Intellectual Stimulation, and a Global Perspective through Student Exchange (NUPACE)



Nagoya University Short-Term Japanese Language Program(NUSTEP)



Nagoya University Summer Intensive Program (NUSIP)



The Nagoya University Global 30 International Programs - Undergraduate and Graduate Degrees Taught in English -



Asia Satellite Campuses Institute
- Transnational Doctoral Programs
for Leading Professionals in Asian Countries -



Other International Programs



Five-Year Doctoral Programs for Training and Developing Future
 International Leaders -

tegrative Graduate Education and Research Program in Green Natural Sciences
ne Program for Cross-Border Legal Institution Design
nD Professional: Gateway to Success in Frontier Asia
nadership Development Program for Space Exploration and Research
address Program for Real Data Circulation Leaders
(Appendix and Program to Program Woll being in Asia

- An Asian Hub University Contributing to a Sustainable Society in the 21st Century-

World-Class Research University Asian Hub University



To attract high quality students and researchers To increase international competitiveness To cultivate human resource that will contribute to creation a sustainable society

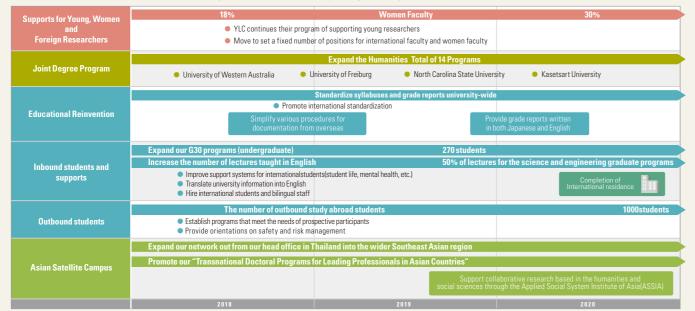
The environment surrounding Japanese higher education is entering a transition phase, with a decrease in working-age people due to declining birthrates and the ageing population, and the increasingly speedy globalization of economic and social activity. Japan's universities, which must live up to society's expectations as intellectual bases that drive the growth of the nation, are strongly expected to gather outstanding researchers from around the world, and to nurture talented young professionals with an understanding of different cultures who will play active roles in and contribute to the solving of

global-scale problems and building towards the future, as well as those who have a strong desire to actively make a contribution to regional communities while maintaining a global mindset. At the same time, our universities must make their presence felt in the international higher education community and work to rank alongside top universities worldwide.

Based on the Nagoya University ideals, NU is to implement the Top Global University Project; in terms of research its goal is the "enhancement of cutting-edge research at a world-class level," while in terms of education it aims to "become an attractive and global Nagoya University." Achieving these goals in the field of Asia, it is determined to become an "Asian hub university." By realizing these three goals, NU intends to play a role as a key university in Asia, which is working hard to build a sustainable world, and, by providing the strong spirit and ability needed to actually make a contribution to twenty-first-century human society, to be fully worthy of being called a top, world-class university. The project concept is as can be seen in the figures above and below.



Top Global University Project: Operation Sheet





Nagoya University continuously aspires to improve the international compatibility of our education system with the aim of fostering

As part of such efforts, the Graduate School of Medicine, in collaboration with the University of Adelaide, Faculty of Health Sciences established Japan's first joint degree program through which a single degree is awarded conjointly with an overseas university ("International Collaborative Program in Comprehensive Medical Science between Nagoya University and University of Adelaide") in October 2015

Shortly thereafter, in October 2016, the Graduate School of Science also established an international collaborative program with the University of Edinburgh College of Science and Engineering named the "International Collaborative Program in Science between the University of Edinburgh and Nagoya University". In addition, in April 2017, the Graduate School of Medicine collaborating with the Lund University, Faculty of Medicine established a joint degree program titled the "International Collaborative Program in Comprehensive Medical Science between Nagoya University and Lund University". Furthermore, two joint degree programs have been established in 2018: the Graduate School of Bioagricultural Sciences in

collaboration the "International Collaborative Program in Agricultural Sciences between Nagoya University and Kasetsart University" with the Faculty of Agriculture of Kasetsart University in April, and the Graduate School of Medicine in collaboration the "International Collaborative Program in Comprehensive Medical Science between Nagoya University and University of Freiburg" with Spemann Graduate School of Biology and Medicine of University of Freiburg in October. Also, the Graduate School of Bioagricultural Sciences collaborating with the University of Western Australia, Faculty of Science will be launching the "International Collaborative Program in Agricultural Sciences between Nagoya University and the University of Western Australia" in April 2019. Each school has begun accepting talented applicants to enroll in these programs.

In the joint degree program, students receive a single diploma with the names of both universities upon completion of the program and spend a predetermined period of time studying in both universities without extending their period of enrollment. This program strives to offer students high-quality educational opportunities by providing a mutually complementary education program that cannot be created within a single university or country.

Nagoya University's objective is to establish approximately 20 other international joint education programs with leading Western and Asian universities, and is currently pursuing the expansion of international joint education program partners primarily with top international universities who have a history of exchange with Nagoya University. By pursuing the establishment of joint degree programs and international joint research projects, Nagoya University aims to increase the number of international joint research articles produced and international faculty, establish an international joint research center, and rank within the top 100 of well-known ranking lists such as THE and QS.

System & Future Vision

1) Joint selective system · Joint examination (Oral, Basic English required) Strengthening the Relationship between the two Universities 2 Joint Program in Medical Education

Faculties provide practical training

• Mutual and complementary program in medical education Careful support system for students by Administrative Advisor. Producing talented graduates who have satisfied the diploma policy

Research University Top 100

@ Nagoya ADELAIDE

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University Adelaid

Outline of International Collaborative Program in Comprehensive Medical Science between Nagoya University and the University of Adelaide

Research in Nagoya

Research in Adelaide

Principal university Oct Apr Oct Ap Oct Apr Oct Apr

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Partner Institution : University of Iceland 2 Partner Institution : University of Leeds 3 Partner Institution : The University of Adelaide 4 Partner Institution : Peking University

University-Wide Student Exchange Program

Over 180 universities/institutions are possible exchange partners

Three internal selection rounds per year (June, November, January)

Duration of Exchange is one semester or one year

Participants join local students in taking classes in their field of study or other related areas of interest. As a representative of Nagoya University, participants must engage in their academic studies with a sincere attitude and are required to periodically submit a report during their exchange. Participants must plan ahead and consider their future plans. Those wishes to transfer credits must follow each departments' rules accordingly.

Merits

○ Support from Study Abroad Office

Study Abroad Office support students participating in exchange by helping them choose their destination, preparing them for language requirements, providing various orientations and risk managements. Office can also advice students while they are on the program through e-mails.

Tuition waiver

Nagoya University has established a mutual tuition fee waiver with most partner institutions. As long as students pay tuition to Nagoya University, they do not have to pay tuition at the destination university. Therefore, the costs of their exchange are less than a self-funded study abroad.

Short Term Program

We also offer various short-term programs. Please refer to the website: http://ieec.iee.nagoya-u.ac.jp/ja/abroad/program/tanki-tokubetsu.html

Fresh Insights, Intellectual Stimulation,

and a Global Perspective through Student Exchange (NUPACE)



Established in February 1996, the Nagoya University Program for Academic Exchange (NUPACE) is an academic student exchange program through which international students enrolled at Nagoya University's partner institutions can study in Japan for one or two semesters. The program aims to foster friendships that extend beyond borders, internationalize through education, and motivate overseas students to pursue more extensive studies in Japan. The NUPACE academic year runs on a semester basis, and students can choose one of two admission periods: Mid-September or early April.

NUPACE offers a unique and flexible curriculum comprising Japanese language instruction, Japan area studies, and a wide range of courses in the student's major field of study, including those available through the G30 International Programs. Provided that they take at least fifteen credits per semester, students can design their own curriculum, balancing their interest in Japanese language and area studies with the desire to pursue their major. Guided research for graduate students is also available. Moreover, whilst a fully-developed, comprehensive English language program is provided, those students proficient in Japanese are eligible to register and earn credits for any course offered to degree-seeking students at Nagoya University.

NUPACE has hosted a total of 2,164 international students from 145 institutions in thirty-six countries. The programme is renowned, in both domestic and international arenas, for its quality and leadership in exchange student education.







1 Hanabi 2 Having a fun time in Ohmeikan lobby 3 Field-trip to Meijimu

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Nagoya University Short-Term

Japanese Language Program (NUSTEP)

Established in February 2016, the Nagoya University Short-Term Japanese Language Program (NUSTEP) is an academic exchange program in which international students enrolled at Nagoya University's partner institutions study intermediate-level Japanese language in an intensive two-week program. Its purpose is to provide participants with the opportunity to improve their language skills and also learn about the culture and society of Aichi Prefecture. Some who enjoy their experience may return to Japan later either through a longer-term exchange program, like NUPACE, or enroll as a graduate student. During the program, participants study in the classroom from 8:45 am to 12:15 pm each day. In

the afternoon, they join activities to experience local society and culture including dressing in a kimono, writing Japanese calligraphy, attending a social event with Nagoya University students, and touring an automobile plant. Nagoya University faculty members also lecture participants on specialized subjects, host a workshop on exploring career options in Japan, and welcome participants to see some of the research conducted in on-campus laboratories. This program will not only encourage cooperation between Nagoya University and its partner institutions, but also provide a new generation of students a small taste of what it is like to study in Japan.

Schedule: July 11-25,2019 February 6-20,2020

	day1	day2	day3	day4	day5	day6	day7
8:45 ▶ 9:00		Opening Ceremony				Morning Meeting	
9:00 ▶ 10:30		Orientation			Japanese 1	Japanese 3	Japanese 5
10:45 ▶ 12:15	Housing	Placement Test	Field Trip	Holiday	Japanese 2	Japanese 4	Japanese 6
Lunch break	Check-in		rieia irip	nonuay			
13:00 ▶ 14:30		Campus Guidance			Study of Japan/ Tradition and	Study of Japan/ Industry in	Laboratory Visit/
14:45 ▶ 16:15		Welcome Party			Culture	Aichi	Specialized Lecture

	day8	day9	day10·day11	day12	day13	day14	day15
8:45 ▶ 9:00	Morning Meeting				Morning Meeting		
9:00 ▶ 10:30	Japanese 7	Japanese 9		Japanese 11	Japanese 13	Japanese 15	
10:45 ▶ 12:15	Japanese 8	Japanese 10	Home Visit/	Japanese 12	Japanese 14	Final Exam	Housing
Lunch break			Holiday				Check-out
13:00 ► 14:30	Study of Japan/	Study of Japan/		Laboratory Visit/	C - If C4 I	Closing Ceremony	
14:45 ▶ 16:15	Monozukuri	Modern Society and Youth		Specialized Lecture	Self Study	Farewell Party	

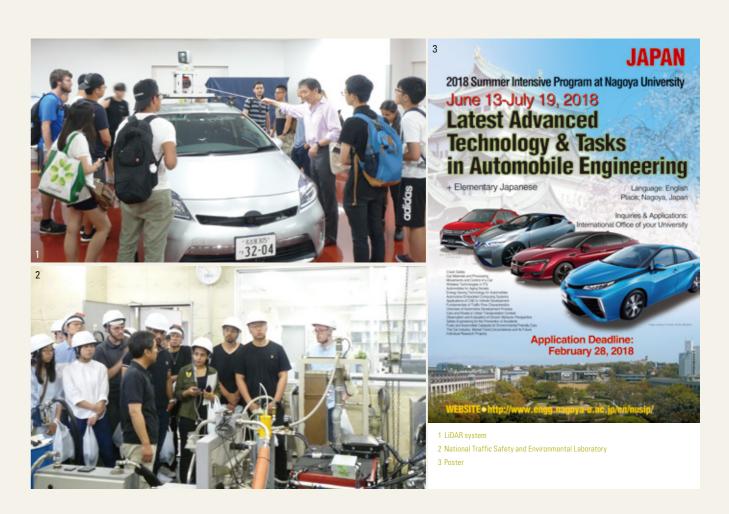






Hands-On Painting Experience 2 Social Exchange with NU Students 3 Presentation in Japanese Cl

Nagoya University Summer Intensive Program (NUSIP)



With support and cooperation from the Japanese automotive industry and related enterprises, the Graduate School of Engineering offered a 6-week summer program entitled "Latest Advanced Technology & Tasks in Automobile Engineering," from June 13 to July 19, 2018 in which 36 overseas students and 9 Nagoya University students participated. Conducted entirely in English, the program was aimed at overseas students and Nagoya University students in engineering-related fields. The program's greatest feature was its exciting lectures from various viewpoints on state-of-the-art technologies in areas such as hybrid automobiles, fuel cells, environmental strategies, accident prevention, and expressway traffic. The lectures were conducted with support from some of the industry's leading technologists and researchers, as well as Nagoya University faculty members. Although of short duration, the program's objectives enabled overseas students to study some of the various fields that are particularly advanced in Japan, as well as increase their interest in this country and its culture. The program also enabled Nagoya University students to improve their English and communication skills and broaden their international horizons in conjunction with studies in their specialist fields. (Refer to: http://www.engg.nagoya-u.ac.jp/en/nusip/index.html)

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The Nagoya University Global 30 International Programs

- Undergraduate and Graduate Degrees Taught in English -

The Nagoya University Global 30 International Programs offer undergraduate and graduate full-degree programs taught in English. Since 2011, we have introduced 10 Undergraduate, 10 Master's, and 7 Doctoral programs to give students the chance to follow their academic interests, improve their language abilities, and hone their communication skills. All faculty teaching in the G30 programs are experts in their field. Small class sizes mean that instructors can provide students with

individual attention. The first and second years of the undergraduate curriculum includes Liberal Arts and Science courses that expose students to subjects outside their field. The first year students also enroll in Japanese language classes. The second and third years offer laboratory courses, seminars and specialized courses to prepare students for their fourth year when they will study, research, and write their graduation thesis.

Global 30 International Programs (Undergraduate)

Programs	Affiliated Schools
Automotive Engineering	• School of Engineering
Physics	• School of Science
Chemistry	• School of Science • School of Engineering
Biological Science	• School of Science • School of Agricultural Sciences
Social Sciences	• School of Law • School of Economics
Japan-in-Asia Cultural Studies	School of Humanities

Global 30 International Programs (Graduate)

D	Affiliand Calcada	De	gree
Programs	Affiliated Schools	Master's	Doctoral
Automotive Engineering	Graduate School of Engineering	•	
Civil and Environmental Engineering	Graduate School of Engineering • Graduate School of Environmental Studies	•	•
Earth and Environmental Sciences	Graduate School of Environmental Studies	•	•
Engineering Physics	Graduate School of Engineering	•	•
Physics and Mathematics	Graduate School of Science • Graduate School of Mathematics	•	•
Chemistry	Graduate School of Science • Graduate School of Engineering	•	•
Biological and Bioagricultural Sciences	• Graduate School of Science • Graduate School of Bioagricultural Sciences	•	•
Biological and Bioagricultural Sciences	Graduate School of Medicine	•	
Medical Science	Graduate School of Medicine		•
Economics and Business Administration	Graduate School of Economics	•	
Linguistics and Cultural Studies	Graduate School of Humanities	•	
Japan-in-Asia Cultural Studies	Graduate School of Humanities	•	









What is Special about the Global 30 International Programs?

✓ Academics

English-taught Curriculum

Nagoya University offers undergraduate and graduate programs fully taught in English. No Japanese language ability is necessary for admission.

Teaching and Training in Research Skills

Nagoya University is one of Japan's top research universities. Our faculty bring recent discoveries in their fields straight to the students. Small class sizes and laboratories emphasize critical thinking, hands-on research skills, and communication abilities.

Japanese Language Education

Although the G30 curriculum is in English, Nagoya University offers a Japanese language program for students from beginner to advanced.

✓ Admission

Online Application

Candidates for the G30 program apply online. Nagoya University evaluates applicants through document screening followed by interviews via video conference.

Y Finances

Non-discriminatory and Affordable Tuition Fees

International students at Nagoya University pay the same tuition fees as domestic students.

G30 Undergraduate Scholarship for Selected Students

Nagoya University selects a limited number of students for scholarships covering tuition fees and a living allowance.

✓ Student Life

Housing

Students in the G30 programs are housed in one of the university dormitories during their first year.

On-Campus Cafeterias

On-campus cafeterias and cafes offer foods that satisfy different tastes and dietary needs.

Academic Advising and Counseling

Specialized faculty, teaching assistants, research assistants and tutors help incoming students adjust to academic and daily life.

Social Events

Throughout the academic year, Nagoya University provides opportunities for students, faculty, and the local community to meet and talk.

Career Support

The Career Services Office provides counseling and career path guidance for international students. Students may also join internship programs, corporate information sessions, company-student mixers, and job fairs.

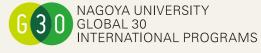
Graduate Destinations

Companies

Toyota Industries Corporation, Daimler, Idemitsu(Singapore), Mizuho Financial Group, NEC, Softbank

Graduate School

University of Oxford, MIT, Imperial College London, ETH, The University of Chicago, University of Pennsylvania, Duke University, UC Berkeley, University of Michigan, University of Toronto



http://admissions.g30.nagoya-u.ac.jp/en/

Nagoya University

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Asia Satellite Campuses Institute

- Transnational Doctoral Programs for Leading Professionals in Asian Countries -

Programs Offe	red at a Glance					
	Graduate School of Education and Human Development	Graduate School of Law	Graduate School of Medicine	Graduate School of Bioagricultural Sciences	Graduate School of International Development	Graduate School of Environmental Studies
★ Vietnam						
Cambodia						
Mongolia						
Laos						
Uzbekista	n					
Philippine	s					
Myanmar			*Program of	ffered without Satellite Campus		







Up to now, Nagoya University has been actively nurturing talented young professionals from Asian countries through initiatives such as legislation-related professional development programs at the Center for Asian Legal Exchange (CALE), and the Young Leaders' Program (YLP) at its Graduate School of Medicine. Students graduating from NU have gone on to play active roles in their home countries in Asia as senior or potential government officials in positions such as vice minister and director-general of

Among those graduates who already hold master's degrees, some wish to study for a doctoral degree at an overseas university, so that they can further develop their policy-making skills in order to tackle the various issues facing Asian countries. However, many graduates find it difficult to study abroad while remaining in their current jobs.

In response to their requests, NU has utilized its great achievements and experience in the Asian region to date, and, from 2014, began the "Transnational Doctoral Programs for Leading Professionals in Asian Countries, "aiming to enable senior officials from various Asian countries to pursue a doctoral degree without leaving their workplace for an extended period of time.

In these Programs, students are enrolled in a Nagoya University doctoral program (Final Three-year Program), and work towards a doctoral degree by receiving education both in Japan and at one of NU's Satellite Campuses. For the majority of the time they learn skills such as academic writing and receive research guidance at the Satellite Campus established in their home country in Asia, as well as receiving long-distance guidance using ICT by their academic advisor in Japan. In addition, there are fixed periods of "schooling," during which students will travel to Japan to receive intensive teaching and research guidance directly from their academic advisor. Through this system of education, students are able to enjoy the same high standard of education as they would on Nagoya University's home campuses, without having to be absent from their workplace for long periods of time.

These Programs are offered in seven countries, namely Cambodia, Laos, Mongolia, Myanmar, Philippines, Uzbekistan and Vietnam by six graduate schools: Education and Human Development,

Law, Medicine, Bioagricultural Sciences, International Development and Environmental Studies.

Other International Programs

International Development and Cooperation Course (Master/ Doctoral)

The program aims at equipping students with knowledge of a wide range of issues of developing countries. By imparting knowledge and understanding of the realities of the developing world, students will be equipped with skills to work in a variety of related professional fields. Drawing on Japanese development experience, it provides alternative perspectives which differ from the conventional development theories of the Western model.

LL.M. (Comparative Law) and LL.D. (Comparative Law) Programs in Law and Political Science. **Department of the Combined Graduate Program in Law and Political Science**

In this program, a traditional curriculum in law and politics is complemented by social activities, student mentorship arrangements, and private and internships. Students may take advantage of language instruction through the International Language Center, annual participation in the Japan Inter-Collegiate Negotiation Competition, and a set of student-driven cross-national seminars (the Peer Support Initiative). The extended features of our environment supplement the academic program, creating additional opportunities for cross-border and cross-cultural teaching and learning.

Young Leaders' Program (Master)

The Young Leaders' Program at Nagoya University is a one-year Master's degree course in Healthcare Administration. The Young Leaders' Program (YLP), which aims to foster the development of future national leaders in Asian and other countries, is one of the Japanese Government Scholarship Student systems and it should help form a network among national leaders, contributing to the establishment of friendly relationships and improved policy planning among Asian and other countries including Japan. (Not open for general admission)

Nagoya University Global Environmental Leaders Program (Master/ Doctoral)

Nagoya University Global Environmental Leaders Program (NUGELP) aims to foster future environmental leaders who can propose concrete solutions to various environmental problems around the world, particularly in Asia and Africa. NUGELP is interdisciplinary and covers various research fields such as Civil Engineering, Environmental Systems Analysis, Transportation Planning, Land Use Planning, Architecture, Economics, and Policy Studies.

Forefront Studies Program (Master/ Doctoral)

The objective of the Forefront Studies Program is to develop international civil engineers who have advanced expertise, ability to make comprehensive judgement and deployment capabilities for sustainable co-development of Japan and foreign countries in civil engineering field. This Program offers the financial aid of the Japanese Government Scholarship Program.

Other International Programs (Graduate)

Draguama	Affiliated Schools	Deg	gree
Programs	ATTINATED SCHOOLS	Master's	Doctoral
International Development and Cooperation Course	Graduate School of International Development	•	•
Department of the Combined Graduate Program in Law and Political Science LL. M. (Comparative Law) Program and LL.D.(Comparative Law)	Graduate School of Law	•	•
Young Leaders' Program (YLP)	Graduate School of Medicine	•	
Nagoya University Global Environmental Leaders Program (NUGELP)	Graduate School of Environmental Studies Graduate School of Engineering	•	•
Forefront Studies Program	Graduate School of Environmental Studies Graduate School of Engineering	•	•

Nagoya University

Program for Leading Graduate Schools

- Five-year Doctoral Programs for Training and Developing Future International Leaders -



1 Green Natural Sciences 2 Legal Institution Design 3 Gateway to Success in Frontier Asia

This enterprise, which has been implemented since 2011 by MEXT, aims to cultivate globally active leaders; to this end, it gathers together first-class teaching staff and students from both inside and outside Japan and supports projects at universities which are forming and developing five-year unified doctoral programs that will be of use globally.

Integrative Graduate Education and Research Program in Green Natural Sciences

This program aims to find lasting solutions to problems relating to the environment and energy, through the development of green natural sciences. While improving the level of dissertations and research, doctoral students will cultivate their "scientific ability and social skills I order to look upon challenges from a broad perspective", as well as their "ability to extract practical results from fundamental research", and their "international experience in

order to play an active role in the world" through internationalized education. Through this program, which stretches across science, engineering and bioagriculture, many students work together in competition and raise the ability of each other. The students who graduate from this program will be able to contribute to the development of a sustainable society as leaders.

The Program for Cross-Border Legal Institution Design

This program develops leaders who can organize international teams working on enterprises to plan and design legal institutions for cross-border transplantation. Transplanted institutions will form the foundations of social operations in various countries. The

Program fosters networks of international leaders with a strong awareness of Asia through joint research on comparative law and comparative politics by Japanese and international students.

PhD Professional: Gateway to Success in Frontier Asia

For Japan to regain its former vitality, it is essential to regenerate manufacturing industry by more expanding the operation into the global markets. Under these circumstances, this program aims to cultivate next-generation leaders who play active roles in developing and implementing new growth strategies by collaboration with Frontier Asia including Vietnam, Cambodia and Indonesia. Through the collaboration, we believe it is important

for both parties to build win-win relationship while each party plays a respective role; namely Frontier Asia as production bases and Japan as expert and investor in technology. This program is intended to train young talents from all-round graduate schools (integration of arts and sciences) to become global leaders strengthening the ties between Japan and Frontier Asia.



4 Group work of students in Space Exploration and Research 5 Real-World Data Circulation 6 Well-being in Asia

Leadership Development Program for Space Exploration and Research

This program aims to expand the utilization of the space environment, the final frontier for humankind, by fostering world-class leaders who can integrate advanced technologies and knowledge with broad perspectives and utilize them in industries, and by creating a network of leaders who will improve people's daily lives through wider use of space technologies and infrastructures. A flagship of this program is the ChubuSat

instrument development projects, where teams of students with different sets of interests, skills and expertise develop instruments for the industry-academia microsatellite project, ChubuSat. Students can exercise their problem-solving and project management skills through the hands-on experience of instrument development. One of the projects proposed by our students was launched as ChubuSat-2 in 2016.

Graduate Program for Real-World Data Circulation Leaders

The field of real-world data circulation aims to integrate the acquisition, analysis, and implementation of data in engineering, information science, medicine, and economics. Data acquisition involves observing digital data from real-world phenomena, while data analysis involves evaluating this data using information science. Data implementation then follows by developing innovative products and services using the analysis results. This Program will foster leaders in industrial technologies, who can

generate effective data circulation to create positive social values. Students in the Program gain the comprehensive understanding needed to recognize data circulation within various technologies. The Program also provides practical experiences, such as research internships, while thesis work allows students to incorporate their experience and knowledge into a Ph.D. dissertation. Furthermore, students in this Program may be offered financial assistance.

Women Leaders Program to Promote Well-being in Asia

This program focuses on problems in the Asian region consisting of multicultural societies in various stages of development. These problems include poverty, diverse health problems, and gender gaps. With a focus on food, health, environment, social systems, and education, we aim to foster women leaders who will work in a global context to achieve well-being in Asia. Well-being refers to a situation in which the rights and personal fulfillment of

individuals are guaranteed and to a state characterized by good physical, mental, social, and economic conditions. This program is jointly undertaken by four graduate schools: International Development, Education and Human Development, Medicine (including Health Sciences), and Bioagricultural Sciences, as well as the International Cooperation Center for Agricultural Education and the Center for Gender Equality.

Nagoya University

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International Cooperation



Applied Social System Institute of Asia (ASSIA)



Center for Asian Legal Exchange (CALE)



Joint Research into Support for Children with Developmental Disabilities in Mongolia



International Center for Research and Education in Agriculture (ICREA)

Applied Social System Institute of Asia, Nagoya University"





Opening address given by the Director Dr. Jiro Nemoto

ASSIA is a new institute launched in April of 2017. To begin, let us explain the circumstances leading to its establishment. In 2015 Nagoya University released the "Nagoya University Matsuo Initiatives for Reform, Autonomy and Innovation 2020" (NU MIRAI 2020), which set forth several medium-term objectives that the University will endeavor to achieve in the future. Central among the challenges introduced is the goal of growing Nagoya University into a world-leading research university, with "the establishment of research institutes for the sustained creation of human knowledge" provided as one of the concrete policies toward achieving this goal.

"The creation of human knowledge" implies, in other words, the integration of knowledge and expertise possessed by the diverse research personnel belonging to Nagoya University as a comprehensive research university. In the past, Nagoya University has prioritized the establishment of interdisciplinary research organizations in the natural sciences, however it has become apparent that finding solutions to many global challenges requires incorporating the knowledge and expertise of the social sciences. To this end, Nagoya University decided to create a new research organization for the integration of the social sciences: the Applied Social System Institute of Asia (ASSIA). While there are many research institutes for specialized fields in the social sciences at national universities in Japan, ASSIA is unique in that it is composed of research personnel who themselves work across a number of fields in the overall sciences.

Now, let us introduce ASSIA's organizational structure. The following six research groups were launched in 2017 with the cooperation of Nagoya University's social sciences departments, and span the three research areas of "Environment", "Institutions", and "Human Resources":

A. Environment

- 1. Sustainable development with decarbonization (Graduate School of International Development, Graduate School of Economics, and Graduate School of Environmental Sciences)
- 2. Strengthening food security and community development in Asia by interdisciplinary approaches (Graduate School of Bioagricultural Sciences, Graduate School of Environmental Sciences, and Graduate School of International Development)

B. Institutions

- 3. Legal research into ASEAN through field studies and theoretical analysis (Graduate School of Law, Graduate School of International Development, and Graduate School of Environmental Sciences)
- 4. The governance of Al networking- Mainly from social, ethical, economic, and legal viewpoints - (Graduate School of Law, Graduate School of Informatics and Graduate School of Economics)

C. Human Resources

- 5. Skills and knowledge for youths in developing countries (Graduate School of International Development, Graduate School of Humanities, and Graduate School of Education and Human Development)
- 6. Construction of an international network for Lesson Studies and development of a teacher education program in Asia (Graduate School of Education and Human Development)

NU MIRAI 2020 takes as another of its policies "the cultivation of personnel motivated to learn with Asia and challenge the world". ASSIA develops human resources and facilitates creative research by utilizing as its foundation the international collaborative networks that each researcher and graduate school at the University have been building in the past. Furthermore, ASSIA contributes to the restructuring of Nagoya University into a "hub university in Asia" by showcasing researches that fuse disciplines and open up new areas of study to the world.

sian Legal Exchange Plaza 2.3 2017 Summer Seminar 4 CJLV 10th Anniversary Ceremony

Joint Research into Support for Children

with Developmental Disabilities in Mongolia







1 NU/MNUE Child Development Support Center 2 The Center opening ceremony











Research and Education Center for Jananese Law

- Tashkent State University of Law, Uzbekist
- 2 National University of Mongolia, School of Law, Mongolia (Est. Sep. 2006)
- 3 Hanoi Law University, Vietnam (Est. Sep. 2007)

Nagoya University

- 4 Royal University of Law and Economics, Cambodia
- 5 Ho Chi Minh City University of Law, Vietnam (Est. Jan. 2012)

Myanmar-Japan Legal Research Center

Indonesia-Japan Legal Research and Education Center

Laos-Japan Legal Research and Education Center

CALE was established in 2002 as a research base for Asian Law and a coordinating center for Japanese research and practice on legal assistance in Asia. It has been expanding its cooperation activities into several countries in Asia, and remains the only center within a Japanese university to be professionally involved with legal assistance research and implementation projects. The Center is committed to playing a major role in carrying out legal assistance projects centering on Asia, disclosing research outcomes related to those projects, disseminating research and legal information on countries in Asia, and expanding the network of specialists within this field.

The Center's legal assistance activities include cooperation with developing countries which are making the transition to a market economy, to assist them in promoting the necessary reform of their legal systems and enable them to achieve a working market economy, the rule of law, human rights, and democracy. Activities in the field include the following:

- Cooperating in the drafting of laws and promoting judicial system reform
- Cooperating in the consolidation of legal infrastructure such as the improvement of maintenance and access to legal and judicial information.
- Cooperating in human resources development in the judicial sector

Establishment of centers for research and education in the field of law

Eight centers have been established jointly by Nagoya University and partner universities in seven Asian transitional countries - Uzbekistan, Mongolia, Vietnam, Cambodia, Myanmar, Indonesia, and Laos, where the Japanese government is implementing legal assistance projects, and where local legal experts with sufficient knowledge and understanding of Japanese law and language are becoming indispensable. Some of these centers provide law students in partner universities with knowledge of Japanese Law through the Japanese language, to foster experts who can contribute to their own country's legal development in the future by benefiting from Japanese knowledge and experience.

These centers are designed as a central point of dissemination of information about Japanese law, and as a hub for the collection and sharing of information about the laws of these countries. They are also aimed at facilitating research on both comparative and country-focused topics, and to coordinate joint research projects between academic and professional institutions of the two countries in order to enhance deeper mutual understanding between professionals and to promote expert knowledge on the law and society of these Asian countries.

Since 2013, Nagoya University has been collaborating with the Mongolian National University of Education (MNUE) on research and support activities for the mental health and development of Mongolian children. In September 2016, the NU/MNUE Child Development Support Center (hereinafter "the Center") was established at MNUE. It is expected that the Center is not only carrying out research and supporting children with developmental disabilities in Mongolia, but also making regional contributions and functioning as a base for human resource development.

The Center's projects are as follows:

1. Consultations on developmental or psychological issues suffered by Mongolian children

We have begun to provide guidance on child development and mental health issues through the Center's dedicated counseling room. Clinical psychologists and a child psychiatrist from NU met with children and their families directly in the past, but now MNUE's experts conduct the interviews themselves, and by consulting with NU staff via Skype, the level of expertise in their clinical care is being taken to new heights. Through these activities, we are contributing to the local community and conducting human resource development in Mongolia.

2. Creation of new testing tools for evaluating the development of children

We aim to improve the methods for evaluating children's cognitive ability in Mongolia by developing a Mongolian version of the "Tanaka-Binet Intelligence Scale V", an intelligence test used extensively in Japan.

In 2017-18, approximately 1200 children living in Mongolia were individually tested with the Mongolian version of the Tanaka-Binet Scale.

We are now standardizing the test, which we plan to finalize in 2019.

3. Training for child development and psychological care experts in Mongolia

For the advancement of specialized knowledge in child development support, we will carry out activities to raise awareness, such as organizing workshops and publishing specialized books.

4. Circulation of research findings

Findings of the research involved in these activities will be presented at international conferences and published in academic journals.

International Cooperation | 35

International Center for Research and Education in Agriculture (ICREA)





Growth survey at the sago palm pilot farm in Indonesia



erview to rice liquor producer by students



ICREA aims to promote basic research and overseas field surveys that are directly geared towards finding solutions of existing problems in agricultural communities. As global food demands rapidly diversify, particularly in developing countries, the role of field science is becoming increasingly important. Specifically, the findings of basic research that have been accumulating in developed countries are expected to be efficiently utilized and applied in actual community to promote sustainable agricultural production that is based on food security, nutrient improvement, and environmental conservation.

For these reasons, our center was reorganized in April 2018, from the International Cooperation Center for Agricultural Education to ICREA, reflecting revisions to our original 1999 mission statement, and made a new start to advance international research collaboration in agricultural development, to strengthen the function of international agricultural education based on such research, and to contribute more to global agricultural sciences by deepening coordination between relevant departments at Nagoya University and core research centers in Japan and abroad.

Research Activities

- Improving rice productivity in unfavorable environments in Asia and Africa:
- 1) Genetic improvement of rice to secure stable rice production
- 2) Development of cultivation techniques to increase rice productivity
- 3) Development of flood-adaptive rice cultivation technology
- The International Sago Palm Project for strengthening food security
- Improving educational and research conditions at agricultural universities in Cambodia
- •Introducing biogas production from livestock manure for forest conversation in Nepal

To provide a platform for circulating the findings produced by the above research, ICREA publishes a peer-reviewed international journal, the 'Journal of International Cooperation for Agricultural Development'.

■Open Forums and Seminars

ICREA organizes our open forum every year to discuss important and contemporary topics of international research and education in agriculture. We also arrange open seminars regularly throughout the year by inviting researchers and experts in agriculture from Japan and abroad.

■ Japan Intellectual Support Network in Agricultural Sciences (JISNAS)

ICREA plays a key role as secretariat of JISNAS, an organization that aims to promote collaboration and establish networks in the agricultural sciences among universities, as well as between universities and international research/cooperation institutions or other relevant organizations.

Global Network



Nagoya University around the Globe - International Liaison Offices and Bases -



Academic Consortium for the 21st Century (AC21)



MIRAI - Connecting Swedish and Japanese Universities through Research, Education and Innovation



universities of the Pacific Rim

Association of Pacific Rim Universities (APRU) - Linking together the influential research



Japan - UK Research and Education Network for Knowledge Economy Initiatives (RENKEI)



Promoting Gender Equality from Nagoya to the World!



Our Partner Institutions







Ulaanbaatar, Mongolia Est. September 2016

The Cooperative Center for Resilience Research, National University of Mongolia and Nagoya University





Ulaanbaatar, Mongolia Est. February 2016

- International Liaison Offices and Bases -

Nagoya University around the Globe

In order to establish a world presence to develop true research excellence, Nagoya University has international liaison offices, research and education bases and a technology transfer office around the world. These stations are strategically positioned to recruit top-level students and teaching staff, organize academic exchanges, host workshops, interact with world-level researchers, learn about different countries' education systems, and promote Nagoya University around the globe.

International Liaison Offices



China Center for International Exchange (Shanghai, China): Est. November 2005-1





European Center (Freiburg, Germany): Est. April 2010-



Bangkok Office

(Bangkok, Thailand) : Est. April 2014-4

Technology Partnership of Nagoya University Inc.





Field Research Center





Ulaanbaatar, Mongolia

● Asian Satellite Campuses Institute (refer to: P30)















Tashkent, Uzbekistan Est. April 2015



Vientiane, Laos Est. October 2015



Los Banos, Philippine Est. November 2015-3

USA **North Carolina**



Centers for research and education in the field of law (refer to: P34)



Tashkent, Uzbekistan Est. Sep. 2005-1



Ho Chi Minh City, Vietnam Est. Jan. 2012

Yangon, Myanmar



Hanoi, Vietnam



Phnom Penh. Cambodia Est. Sep. 2008-3



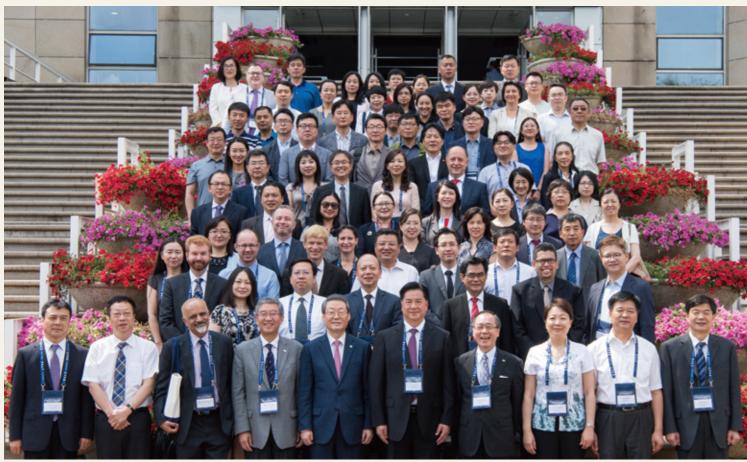
Yogyakarta, Indonesia Est. Jan. 2014



Vientiane, Laos Est. Feb. 2014

Global Network 39 Nagoya University

Academic Consortium for the 21st Century (AC21)



Towards "The Global University — Architect of the New Century"

The Academic Consortium for the 21st Century (AC21) was established in 2002 on the initiative of Nagoya University, with the aim of founding a new and vigorous global partnership in higher education.

Over the seventeen years of its history, the AC21 network has steadily grown, currently with 17 member universities from 11 countries in five continents. With the ambitious vision "The Global University-Architect of the New Century", the consortium has conducted an array of initiatives and programs through which the member institutions can develop collaborations and contribute to addressing global issues of the 21st century.



As of April 2019

AC21 Member Institutions



• The University of Adelaide



- Jilin University
- Nanjing University
- Northeastern University
- Shanghai Jiao Tong University
- Tongji University

France

• University of Strasbourg



• University of Freiburg



• Gadjah Mada University

Japan

Nagoya University





New Zealand

University of Canterbury

South Africa

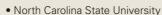


• Stellenbosch University









• University of Minnesota

r. Toshihide Maskawa





1 President Matsuo at AC21 IF 2018 2 Trustee/Vice President Watanabe at AC21 IF 2018 3 Closing Ceremony of AC21 IF 2018

AC21 Activities

AC21 is a dynamic consortium that fosters collaboration amongst members through the following programs and activities:

✓ Collaboration in Research & Education

-International Forums (IF)

Held every two years, the International Forums provide the AC21 members with the opportunities to reassess the role of higher education in society, through keynote addresses by prominent public figures, presentations and panel discussions.

—Special Project Fund (SPF)

The AC21 Special Project Fund, launched in 2009, endeavors to promote research and educational exchanges among the member institutions

☑ Programs for Students

—Student World Forums (SWF)

The Student World Forums are conferences where students from the member institutions are invited to exchange ideas on issues of international concern. The SWF facilitates international friendship, encourages students to develop a global mindset and strengthens the AC21 network

-International Graduate Schools (IGS)

While the SWFs target mainly undergraduate students, a new program was launched in 2013 in order to inspire graduate students of the member institutions. Lectures in the IGS are offered by leading scholars with outstanding credentials in their respective fields.

✓ Industry-Academia-Government Collaboration

Taking advantage of its international network, the AC21 facilitates collaboration among academia, industry and government at a global level.

9th AC21 International Forum 2018 at Jilin University, China

The 9th AC21 International Forum (IF) 2018 was organized by Jilin University, China from July 4 to 7, 2018, under the theme of, "University Innovation and Social Development", with its three sub-themes of; "Interdisciplinary Research and International Cooperation", "Reform in Higher Education and MOOCs" and "Innovation and Entrepreneurship".

Over 100 representatives of 30 universities and educational institutions from 10 countries participated in this forum. The 16th annual AC21 Steering Committee (STC) Meeting and the 9th biannual General Assembly (GA) were also held during this time. In the meetings, the key activities of AC21 from the previous

year as well as future event plans beyond 2019 were shared with the member universities. Following the financial report from 2017 and the announcement of plans for 2018, policies and strategic directions for future AC21 activities were discussed. At the closing ceremony of the forum, the next AC21 Presidency was passed on from Jilin University to Kasetsart University, Thailand, which will host the next IF in 2020. President Seiichi Matsuo, Nagoya University, delivered a closing address that emphasized, "Diversity and inclusiveness are the key to contribute to the happiness and sustainable development of human kind, in the era of digital revolution".

Global Network 41 Nagoya University

MIRAI - Connecting Swedish and Japanese Universities

through Research, Education and Innovation





As of April 2019

MIRAI member universities



- Hiroshima University
- Hokkaido University
- Kvushu University
- Nagoya University
- Sophia University
- Tokyo Institute of Technology
- The University of Tokyo
- Waseda University



Sweden

- Chalmers University of Technology
- Linköping University
- Lund University
- Stockholm University
- Umeå University
- University of Gothenburg Uppsala University



Panel Discussion at MIRAL Seminar

MIRAI is an academic consortium consisting of seven Swedish universities and eight Japanese universities; it was initiated as an outcome of the fruitful discussion at the "Japan-Sweden University Presidents' Summit" held in October of 2015. To further expand and strengthen academic exchanges and research collaborations between the two countries, MIRAI organizes an annual seminar, where researchers and students from the member universities meet to seek further opportunities for cooperation. MIRAI's activities include seminars, workshops, short courses for PhD students, and short-term mobility in its target disciplines; Sustainability, Ageing, Materials Science, and Innovation.

MIRAI Seminar 2018 in Tokyo

Following the first MIRAI Seminar in 2017 at Lund University in Sweden, the second MIRAI Seminar 2018 was successfully organized by Nagoya University in Tokyo, Japan, on October 9th-12th, 2018, in cooperation with the other Japanese MIRAI member universities. MIRAI Seminar 2018 also commemorated the 150th anniversary of diplomatic relations between Japan and Sweden. In its Plenary Session held at Yasuda Auditorium, the University of Tokyo, where government officials and funding agencies from both countries also attended, Professor Hiroshi Amano, a Nobel laureate, took the rostrum as one of the keynote speakers. The future of education and research support activities in the framework of MIRAI were also discussed by attendees from the MIRAI member universities, including President Seiichi Matsuo.

Parallel scientific sessions on the MIRAI's target disciplines were organized at Sophia University, the University of Tokyo and Waseda University, engaging the participants in lively discussions. MIRAI Seminar 2018 welcomed more than 300 participants from both inside and outside of the MIRAI membership and ended on a high note. MIRAI Seminar 2019 will be held at Stockholm University and Uppsala University, concluding the 2017-2019 phase of the current MIRAI Project. The second phase of MIRAI is now being discussed.





1 Prof. Anders Ynnerman(Linköping University) at MIRAI Seminar 2018 2 Prof. Hiroshi Amano(Nagoya University) at MIRAI Semi

Association of Pacific Rim Universities (APRU)



- Linking together the influential research universities in the Pacific Rim region



APRU Annual Presidents' Meeting 2018 © APRU

APRU is a unique association that brings together the leading universities in the Americas, Asia, and Australasia. It was established in 1997 as "the voice of knowledge and innovation" for the Asia-Pacific region. APRU aims to provide opportunities for thought leaders, researchers, and policy-makers to exchange ideas and collaborate toward effective solutions to the challenges of the 21st century. Over 50 universities that represent the Asia-Pacific region are the members of the association, with participation of Nagoya University in 2017. Through cross-border collaboration with multiple universities, Nagoya University will strengthen its involvement in the organization to address the challenges we face and to become one of the world's best research universities.

Japan-UK Research and Education Network

for Knowledge Economy Initiatives (RENKEI)





RENKEI was launched in March 2012, consisting of six Japanese and UK universities to promote strategic multilateral collaboration among academia, industry, government and society through education and research. In April 2018, the second phase of the five-year RENKEI scheme (2018-2022) started with two themes; "climate change" and "health". A new platform for researchers to initiate collaborations with industry, government and various stakeholders will further be developed. In November 2018, the annual Steering Committee meeting, Forum and Researcher Workshop were held in Kyushu and Tokyo, respectively.

Nagoya University Global Network 43



Phumzile Mlamho-Ngcuka, Executive Director of LIN Women and HeForShe IMPACT Champion

In addition to be well-known for producing many Nobel Prize-winning scientists, Nagoya University is also famous for its strong commitment to promoting gender equality. In response to the enactment of the Basic Law for a Gender-Equal Society in 1999, Nagoya University became the first Japanese university to establish a university-wide committee for promoting gender equality in 2002 and the Office for Gender Equality in 2003. Ever since, promoting gender equality has continued to be given high priority among Nagoya University's important goals. In July 2017, the existing Office for Gender Equality was upgraded to the Center for Gender Equality to enhance awareness of gender equality on campus further.

As the first initiative of promoting gender equality, Nagoya University established two nursery schools and an after-school childcare facility on campus. Those facilities became symbols to demonstrate the university's strong determination to achieve gender equality. Following the initiative, Nagoya University has introduced many other innovational approaches to promoting gender equality and women's empowerment, such as women-only positions in natural sciences, women's leadership programs both for faculty members and graduate students, and industry-university-government cooperation for gender equality. As a result of various efforts to promote gender equality, the Nagoya University's gender equality model has diffused to not only Japanese universities but also many other Asian universities through its satellite offices and partnership network in Asia.

Today, Nagoya University is promoting gender equality globally. Nagoya University has been selected as one of the ten University IMPACT Champions by UN Women to support the HeForShe initiative, together with University of Leicester, University of Hong Kong, Science Po, Georgetown University, Stony Brook University,

University of Waterloo, University of São Paulo, Kenyatta University, and University of the Witwatersrand, Johannesburg. HeForShe is a solidarity movement for gender equality on a global scale, and engaging men in gender equality is a major objective.

As a HeForShe University IMPACT Champion, Nagoya University has made three commitments. The first commitment is to build a center for gender equality to serve as the home for the gender equality movement. The second commitment is to drive parity from the top, increasing the representation of female faculty members and women in leadership positions to 20% by 2020. The third commitment is to work with the government and private sector to champion gender equality across Japan.

Gender Research Library, Nagoya University

Gender Equality benefits not only women but also men. Thus, men's commitment is as equally as important as women. As one of the world's leading universities of promoting gender equality, Nagoya University will continue striving to be a frontrunner of gender equality not only in Japan but also in the world.

Gender Research Library (GRL), Nagoya University, opened on November 1, 2017 for the purpose of the general advance in the gender research. GRL serves as a research center for researchers, students and the general public. GRL can hold a maximum of 40.000 volumes

Our primary collection is donated by the Tokai Foundation for Gender Studies (TFGS) and Professor Emerita Tamae Mizuta of Nagoya University of Economics, who is also an advisor of TFGS. As the gender research is the cross-disciplinary and comprehensive field, GRL gathers and preserves a wide range of books and materials. We are open to anyone who is interested in feminism and gender problems.

Academic Exchange Agreements

• = Inter-University Agreement o = Inter-School Agreement

Our Partner Institutions

Asia

BANGLADESH

- o Bangladesh Agricultural University
- o Bangladesh University of Engineering & Technology, Department of Physics
- University of Dhaka, Faculty of Social Sciences
- o SAARC Meteorological Research Centre

BHUTAN

The Centre for Bhutan Studies

CAMBODIA

- Royal University of Phnom Penh
- Royal University of Agriculture
- Royal University of Law and Economics

CHINA

- Nanjing University
- Jilin University
- . Huazhong University of Science and Technology
- Tsinghua University
- Fudan University
- · Xi'an Jiaotong University
- Zheiiang University
- Shanghai Jiao Tong University
- Tongji University
- Northeastern University
- Peking University
- · Harbin Institute of Technology
- University of Science and Technology of China
- Chinese Academy of Sciences. the Shanghai Institute of Organic Chemistry
- Dalian University of Technology
- o Central South University
- Beijing University of Technology
- O Chinese Academy of Sciences, Purple Mountain Observatory
- o Chinese Academy of Sciences, National Astronomical Observatories
- o China University of Political Science and Law
- o Chinese Academy of Social Sciences, Institute of Literature and Institute of Literature of National Minorities
- Peking University, School of International Studies
- o East China University of Political Science and Law
- o Chinese Academy of Sciences, Institute of High Energy Physics
- Beijing International Studies University
- Nanjing University of Aeronautics and Astronautics o Jiangsu Provincial Academy of Social Sciences (JSASS)
- o Chinese Academy of Sciences, Institute of Process Engineering
- o Polar Research Institute of China
- Southwest Jiaotong University, School of Economics and Management
- o Beijing Institute of Technology, School of Management and Economics
- o East China Normal University, Faculty of Education Sciences
- o Chinese Academy of Sciences, Research Center for Eco-Environmental Sciences
- o Chinese Academy of Social Sciences, Institute of Population and Labor Economics
- Tianjin University, School of Management and School of Public Administration

- o Chinese Academy of Sciences, Xinjiang Institute of Ecology and Geography
- China Meteorological Administration, Institute of Desert Meteorology

University of International Business and Economics,

- Chinese Academy of Sciences, Shanghai Institute of Ceramics
- o Hainan University, Law School
- o Renmin University of China, School of Law

As of December 1, 2018

School of International Trade & Economics

- Shenyang University of Technology
- o Ministry of Health, P.R.China-Japan Friendship Hospital
- o Sun Yat-sen University, Lingnan College
- o Beijing Normal University, Academy of Disaster Reduction and Emergency Management, State Key Laboratory of Earth Surface Processes and Resource Ecology
- o Xiamen University, School of Law
- o Chinese Academy of Sciences, Institute of Theoretical Physics
- Chinese Academy of Sciences, Institute of Geographic Sciences and Natural Resources Research
- Nanjing Normal University,
- School of Energy & Mechanical Engineering
- o Donghua University, College of Foreign Languages
- Shanghai International Studies University, School of Japanese Studies and School of Chinese Studies and Exchange
- Beijin Normal University, Faculty of Education
- o Institute of Science and Technology for Development of Shandong (ISTD)
- Xi'an International Studies University, School of Japanese Culture and Economy
- Renmin University of China, School of Foreign Languages
- o Institute of Geophysics, China Earthquake Administration
- o Tianjin University, School of Architecture

HONG KONG

- The Chinese University of Hong Kong
- The University of Hong Kong
- City University of Hong Kong
- o The Hong Kong University of Science and Technology, School of Engineering

INDIA

- University of Pune
- Indian Institute of Science, Bangalore
- Tata Institute of Fundamental Research
- o Tata Institute of Fundamental Research. Natural Sciences Faculty
- o Indian Institute of Technology Madras
- o Indian Institute of Technology Delhi

INDONESIA

- Gadjah Mada University
- The State University of Surabaya
- Institute of Technology Bandung
- Indonesian National Institute of Aeronautics and Space
- o Padjadjaran University, Faculty of Letters
- o Sviah Kuala University, Faculty of Basic Science
- o Diponegoro University, Pusat Studi Asia
- Agency for the Assessment and Application of Technology (BPPT), Center for the Assessment and Application of Environmental Technology
- University of Indonesia, Faculty of Engineering University of Indonesia, Faculty of Computer Science
- o Sepuluh Nopember Institute of Technology
- o Sriwijaya University, Faculty of Agriculture
- o Universitas Halu Oleo
- Indonesia University of Education (UPI)
- Syiah Kuala University, Faculty of Agriculture

REPUBLIC OF KOREA

- Gyeongsang National University
- Ewha Womans University
- Hanyang University
- Korea University
- Seoul National University
- Kyung Hee University
- Yonsei University
- Sungkyunkwan University
- Pohang University of Science and Technology
- Korea Advanced Institute of Science and Technology (KAIST)
- Korea Maritime and Ocean University Korean Research Institute of Standards and Science
- Astronomy Observatory Chungnam National University,
- College of Economics and Business Administration
- Korea University, College of Education
- O Korea Institute for Advanced Study, School of Mathematics
- o Seoul National University, College of Law
- O Kyungnam University, Industry Academic Cooperation Foundation o Korea Legislation Research Institute
- Pukyong National University, College of Fisheries Sciences o Pusan National University, College of Engineering
- Hankuk University of Foreign Studies, Graduate School and
- Graduate School of International Area Studies Chonnam National University,
- College of Business Administration University of Seoul, College of
- Public Affairs and Economics Chonbuk National University. Institute for North-East Asian Law
- Korea Institute of Geoscience and Mineral Resources. Geologic Environment Research Division
- Kyungpook National University, Faculty of Engineering
- o Institute of Sunchang Fermented Soybean Products
- Seoul National University Hospital Korean Space Weather Center
- o ASAN Medical Center
- o Dong-A University, College of Natural Resources and Life Science
- Korea Aerospace University, College of Engineering, Department of Materials Science, Center of Surface
- Technology and Applications Pusan National University.
- Professional Graduate School of Law Korea Institute of Ocean Science and Technology, Korea Ocean Satellite Center
- Chungnam National University,
- College of Agriculture and Life Sciences o Seoul National University Asia-Pacific Law Institute
- O Chonnam National University. School of Mechanical Engineering Automobile Research Center

- National University of Laos
- o National Agriculture and Forestry Research Institute
- o Champasack University

MALAYSIA

o MARA University of Technology, Faculty of Mechanical Engineering

o Universiti Putra Malaysia, Faculty of Science

MONGOLIA

• National University of Mongolia

Nagoya University

- Mongolian University of Science and Technology
- Ministry of Health and Sports, Mongolia
- The Ministry of Environment and Tourism of Mongolia
- Mongolian National University of Medical Sciences
- o Mineral Resources and Petroleum Authority of Mongolia, Geological Information Center
- o National Legal Center of Mongolia
- Mongolian University of Science and Technology, School of Geology and Petroleum Engineering
- Mongolian Academy of Sciences, Institute of Geography
- o Mongolian Academy of Sciences, Institute of Philosophy, Sociology and Law
- o Institute of Meteorology, Hydrology and Environment, Mongolia
- Mongolian National University of Education

MYANMAR

- University of Yangon
- o The University of Medicine 1, Yangon

NEPAL

o Kathmandu University, School of Science

PHILIPPINES

- University of the Philippines, Los Banos
- University of the Philippines
- o University of the Philippines, Diliman
- o University of the Philippines, Manila, UP College of Nursing
- o Gokongwei College of Engineering, De La Salle University

SINGAPORE

- Nanyang Technological University
- Singapore Management University
- National University of Singapore
- National University of Singapore, Yong Loo Lin School of Medicine. Alice Lee Centre for Nursing Studies
- National University of Singapore, NUS Business School
- National University of Singapore. Office of Safety, Health & Environment
- National University of Singapore, Center for Quantum Technologies
- Nanyang Technological University, National Institute of Education
- o National University of Singapore Centre for Asian Legal Studies (CALS)
- O National University of Singapore, Yong Loo Lin School of Medicine

SRILANKA

 University of Sri Javewardenepura. Faculty of Humanities and Social Sciences

- National Taiwan University
- National Chengchi University
- National Tsing Hua University
- National Chung Cheng University
- National Chenachi University, College of Law o National Taiwan Normal University, College of Education
- Soochow University, School of Law
- o Soochow University, School of Foreign Languages and Cultures
- National Taiwan University,
- Department of Atomospheric Sciences
- o Taiwan Ocean Research Institute
- National Chiao Tung University, College of Electrical and Computer Engineering
- National Chung Cheng University, Center for International Affairs and Exchange
- National Center for Theoretical Sciences. Mathematics Division
- o National Central University, Collage of Science
- o Academia Sinica, Institute of Chemistry

Fu Jen Catholic University, College of Foreign Languages

THAILAND

- Kasetsart University
- Chulalongkorn University
- Chulabhorn Research Institute/ Chulabhorn Graduate Institute
- Rajamangala University of Technology Thanyaburi
- Bangkok Dusit Medical Services Public Company Limited
- King Mongkut's University of Technology North Bangkok Science and Technology Research Institute
- Thammasat University, Faculty of Economics
- Mahidol University, ASEAN Institute for Health Development
- Chiang Mai University, Faculty of Economics
- o Mahidol University, Faculty of Medicine Ramathibodi Hospital
- o HRH Princess Chulabhorn College of Medical Science
- Kasetsart University, Faculty of Agriculture and the Faculty of Agriculture at Kamphaeng Saen [JD]

VIETNAM

- · Hanoi University of Science and Technology
- Vietnam National University, Hanoi
- The Ministry of Justice of the Socialist Republic of Viet Nam
- Vietnam Institute of State and Law
- Hanoi Law University
- Ho Chi Minh City University of Law
- o Vietnamese Academy of Science and Technology, Ho Chi Minh City Institute of Resources Geography
- Vietnam National University- Ho Chi Minh City, University of Science, Faculty of Environmental Science
- Foreign Trade University
- Hue University of Medicine and Pharmacy
- Vietnam Academy of Science and Technology, Institute of Mathematics
- o University Medical Center, Ho Chi Minh City

Pacific

AUSTRALIA

- University of Sydney
- Monash University
- Flinders University
- University of South Australia
- The University of Adelaide
- The Australian National University
- The University of Western Australia
- University of New South Wales
- o The University of Melbourne, Asian Law Centre o Commonwealth Scientific and Industrial Research
- Organization, Divison of Ecosystem Sciences (CSIRO) The University of Adelaide, Faculty of Health Sciences (JD)

NEW ZEALAND

- o National Institute of Water and Atmospheric Research University of Auckland, Center for Geophysical Research
- o University of Canterbury, Faculty of Science

Europe

ARMENIA

Yerevan Physics Institute

AUSTRIA

- University of Innsbruck
- o Johannes Kepler University Linz, Faculty of Law
- o The Medical University of Vienna

- o FH JOANNEUM Gesellschaft mbH University of Applied Sciences
- Universität Klagenfurt, Institute of Social Ecology. Faculty for Interdisciplinary Studies

BELGIUM

KU Leuven

BULGARIA

- Sofia University, Department of Astronomy
- Bulgarian Academy of Sciences, Institute of Electronics and Space Research Institute, Space Astronomy Division
- o Bulgarian Academy of Sciences, Institute of Mathematics

CZECH REPUBLIC

Czech Technical University in Prague

DENMARK

- University of Copenhagen
- Aarhus University

FINLAND

Finnish Meteorological Institute, Department of Geophysics

FRANCE

- Université de Strasbourg
- Ecole Nationale des Ponts et Chaussées (ENPC)
- Université Paris Diderot-Paris 7
- Université Jean Moulin-Lyon 3
- Communaute Universite Grenoble Alpes*
- Université Paris-Est
- École Normale Supérieure de Lyon
- Fondation Maison des Sciences de l'Homme
- Aix-Marseille Université
- Université Paris-Sud
- o Université Panthéon Assas, Paris 2 o École Nationale Supérieure d'Architecture Paris
- o Université de Technologie de Belfort-Montbéliard
- o Université de Reims Champagne-Ardenne
- University of Clermont Auvergne * Université Grenoble Alpes (UGA), Institut polytechnique de Grenoble (Grenoble INP), Institut d'Études Politiques de Grenoble (IEP), Ecole Nationale Supérieure d'Architecture de Grenoble (ENSAG), Université Savoie Mont Blanc (USMB) , Centre national de la recherche scientifique (CNRS), Commissariat à l'énergie atomique et aux énergies alternatives (CEA), Institut national de recherche en informatique et en automatique (INRIA), Doctoral College from the Communauté Université Grenoble Alpes

GERMANY

- Technische Universität Braunschweig
- Technische Universität München
- Technische Universität Chemnitz
- University of Freiburg
- RWTH Aachen
- o University of Freiburg, Faculty of Economics and Behavioral Sciences
- University of Cologne, I Physical Institute
- Johannes Gutenberg University Mainz, Faculty of Chemistry, Pharmaceutical Sciences and Geoscience
- German Aerospace Center, Institute of Aerospace Medicine
- University of Ulm, Faculty of Mathematics and Economics
- o University of Freiburg, Faculty of Medicine o University of Regensburg, Faculty of Law
- o University of Münster, Faculty of Chemistry and Pharmacy
- Ruhr-Universität Bochum, Faculty of Physics and Astronomy and Faculty of Electrical Engineering and Information Technology Technische Universität Kaiserslautern, Faculty of Architecture,
- Spatial and Environmental Planning and Civil Engineering o Freie Universität Berlin, Environmental Policy Research Centre

- o The Research Center for Eastern and South Eastern Europe o Moscow State Engineering and in Regensburg, Institute for East European Law
- o Technische Universität Darmstadt. Department of Civil Engineering and Geodesy
- o Ruhr Universität Bochum, Faculty of Mathematics
- O University of Duisburg-Essen, Institute of East Asian Studies
- o Fraunhofer Institute for Chemical Technology ICT, Fraunhofer-Gesellschaft
- CFK Valley Stade e.V.
- o FRS Law School
- o Johannes Gutenberg University Mainz, Faculty of Physics, Mathematics and Computer Science
- Leibniz Institute of Ecological Urban and Regional Development
- University of Freiburg, Faculty of Medicine (JD)
- o Innovations for High Performance Microelectronics (IHP) o Heinrich Heine University Duesseldorf.
- Faculty of Mathematics and Natural Sciences Forschungszentrum Jülich GmbH
- o University of Applied Sciences Kempten

HUNGARY

o Hungarian Academy of Sciences, Institute for Legal Studies

ICELAND

University of Iceland

- National Institute of Nuclear Physics (INFN)
- University of Catania
- University of Bologna
- Sapienza University of Rome
- o University of Padova, Department of Information Engineering o University of Padova, Department of Civil,
- Environmental and Architectural Engineering University of Modena and Reggio Emilia, Department of Sciences and Methods for Engineering

Legislation Research Institute, Republic of Kazakhstan

KAZAKHSTAN

- Kazakh Humanitarian and Law University
- LATVIA

Latvian State University **NETHERLANDS**

- University of Twente Radboud University
- NORWAY
- University of Oslo University of Tromso, Faculty of Science Norwegian University of Science and Technology,

POLAND

- University of Warsaw
- Institute of High Pressure Physics (UNIPRESS), Polich Academy of Sciences

Faculty of Medicine and Health Science

- Medical University of Gdańsk
- Warsaw University of Technology
- o Polish Academy of Sciences, Institute of Geological Sciences, Krakow Research Centre

RUSSIA

- loffe Institute
- Rzhanov Institute of Semiconductor Physics Siberian Branch of Russian Academy of Sciences Institute of Theoretical and Experimental Physics
- Ministry of Health of Russia, Institute of Biomedical Problems

Lomonosov Moscow State University, Faculty of Physics

- Physics Institute (Technical University-MEPhI)
- Russian Academy of Sciences, Institute of Computer Aided Design
- Russian Academy of Sciences, Far Eastern Branch. Institute of Cosmophysical Research and Radiowave Propagation (IKIR)
- Russian Academy of Sciences, Siberian Branch. Institute of Solar-Terrestrial Physics (ISTP)
- M.V. Lomonosov Moscow State University, Department of Chemistry
- Russian Academy of Sciences, Siberian Branch, YuG. Shafer Institute of Cosmophysical Research and Aeronomy (IKFIA)
- The Polar Geophysical Institute, Murmansk

SPAIN

- University of Barcelona
- Institute of Space Studies of Catalonia (IEEC)
- Basque Centre for Climate Change

SWEDEN

- Uppsala University Royal Institute of Technology
- Lund University, Faculty of Law o Swedish Institute of Space Physics
- SAFER Vehicle and Traffic Safety Centre at Chalmers o Lund University, Faculty of Medicine [JD]

SWITZERLAND

- University of Geneva University of Bern,
- U.K.
- The University of Sheffield The University of Warwick
- University of Bristol University of London.

Interdisciplinary Center for General Ecology (IKAOe)

- School of Oriental and African Studies (SOAS) The University of Leeds
- The University of Edinburgh University of Cambridge, St John's College

Durham University

- University of St Andrews
- The University of Nottingham, School of Biosciences
- o University of East Anglia, Faculty of Social Sciences, School of International Development
- o The University of Manchester, Faculty of Life Sciences
- University of Leicester, Department of Physics and Astronomy o The University of Oxford, Department of Physics
- o The University of Manchester,
- School of Environment & Development The University of Warwick The University of Edinburgh,
- College of Science & Engineering, School of Chemistry The University of Edinburgh, Higgs Centre for Theoretical Physics
- College of Science and Engineering[JD] o University of Glasgow

UKRAINE

UZBEKISTAN

The University of Edinburgh,

- Ukrainian Academy of Sciences, Institute of Theoretical Physics
- Tashkent State University of Law (TSUL) University of World Economy and Diplomacy
- Tashkent State Technical University named after Abu Raykhan Beruniy The Academy of Public Administration under the

President of the Republic of Uzbekistan

Samarkand State University

North America

CANADA

- York University
- University of Toronto, the Faculty of Arts and Science
- Université de Montréal
- University of Alberta
- University of Calgary
- University of Ottawa
- o Carleton University, Faculty of Science
- O University of Toronto, Ontario Institute for Studies in Education (OISE)

USA

- St. Olaf College
- New York University
- University of Minnesota
- The University of North Carolina at Chapel Hill • University of California, Davis
- University of California, Berkeley
- Iowa State University
- University of Michigan, College of Engineering
- Department of Education o University of Houston, Cullen College of Engineering
- O University of California, Berkeley, Department of Physics

College of Natural Resources

- University of California Berkeley,
- o National Oceanic and Atmospheric Administration, Space Environment Laboratory
- Massachusetts Institute of Technology. Haystack Observatory
- o Tulane University, School of Medicine o University of Pennsylvania, School of Medicine
- Center for Astrophysics and Space Sciences
- o Duke University, School of Medicine
- o Johns Hopkins University, School of Medicine o University of Wisconsin Law School University of Wisconsin Law School.
- University of Maryland, Department of Mechanical Engineering
- o University of California, Los Angeles, California NanoSystems Institute
- O University of California, Berkeley,
- Michigan State University,

Center for Global Metropolitan Studies

o Northwestern University, Materials Research Institute

University of Victoria. Centre for Asia-Pacific Initiatives

- Oberlin College
- North Carolina State University
- Harvard-Yenching Institute
- University of Cincinnati
- Southern Illinois University, Carbondale
- University of Illinois at Urbana-Champaign
- University of Kentucky
- University of California, Los Angeles
- University of Florida
- University of Oregon
- University of California, Los Angeles.
- o University of North Carolina at Chanel Hill. School of Medicine.
- o University of Alaska Fairbanks, Geophysical Institute
- National Oceanic and Atmospheric Administration. National Geophysical Data Center
- o Harvard Medical School
- University of California, San Diego.

o Colorado School of Mines

- University of Alaska Fairbanks, Geophysical Institute
- East Asian Legal Studies Center
- o University of Washington, Genetically Engineered Materials Science and Engineering Center
- Department of Physics and Astronomy o Green Mountain College
 - Global Network 47

- O University of California, Santa Barbara, Bren School of Environmental Science and Management
- University of Michigan, College of Engineering, Macromolecular Science and Engineering Center
- University of Pittsburgh, School of Education
- o The Ohio State University, Center for Cosmology and AstroParticle Physics; College of Arts and Sciences, Department of Physics and Department of Astronomy
- o Virginia Polytechnic Institute and State University, Center for Space Science and Engineering Research
- University of Colorado Boulder, Laboratory for Atmospheric and Space Physics
- o University of Washington, College of Engineering
- o The University of Akron, School of Law
- o The Ohio State University, College of Education and Human Ecology
- o University of Michigan, College of Literature, Science, and the Arts, Department of Chemistry
- o The Ohio State University, Translational Data Analytics
- Mississippi State University,
- Center for Advanced Vehicular Systems (CAVS)

Latin America and the Caribbean

ARGENTINE

- National University of Rosario, Faculty of Biochemical and Pharmaceutical Sciences
- Luis F, Leloir, Campomar Foundation, The Research Institute of Biochemistry

o Universidad Mayor de San Andres, La Paz, Faculty of Sciences, Chacaltaya Cosmic Ray Observatory

- Universidade de Brasília
- Universidade de São Paulo
- National Institute for Space Research
- Fundacao Joaquim Nabuco

GUATEMALA

o Del Valle de Guatemala University, School of Engineering

HONDURAS

O Honduran Institute of Anthropology and History in Honduras

- Universidad Nacional Autonoma de Mexico
- Universidad de Sonora
- o Autonomous University of Nuevo Leon

Middle East

IRAN

- o University of Kurudistan, Faculty of Engineering University of Kurdistan, Institute of Materials
- and Systems for Sustainability

TURKEY

- Bilkent University
- o Istanbul Technical University

o Tel Aviv University Raymond and Beverly Sackler School of Physics and Astronomy

Africa

EGYPT

- Cairo University
- o Tanta University, Faculty of Engineering
- o Assiut University, Faculty of Science

GHANA

University of Ghana, Faculty of Social Studies

- University of Nairobi
- o African Institute for Capacity Development (AICAD)

SOUTH AFRICA

- Stellenbosch University
- South African Astronomical Observatory
- o The Human Sciences Research Council (HSRC)

International Organization

- Southeast Asian Regional Center for Graduate Study and Research in Agriculture (SEARCA)
- European Organization for Nuclear Research (CERN)
- United Nations Centre for Regional Development (UNCRD)
- o International Institute for the Unification of Private Law

Multilateral

- Chulalongkorn University (Thailand); Hanoi University of Science and Technology (Vietnam) and National University of Laos (Laos)
- Tashkent State Technical University named after Abu Raykhan Beruniy (Uzbekistan); University of Tsukuba (Japan)
- The University of Adelaide. Faculty of Health Sciences (Australia); University of Freiburg, Faculty of Medicine (Germany)
- Jus Commune Triangle Agreement for Academic Exchange (Establishment of a supportive core for CAMPUS Asia and Cooperation)

Agreements for Industry-**University Collaboration**

Europe

- University of Warwick
- o NCC Operations Ltd. as legal entity for the University of Bristol National Composites Centre

North America

North Carolina State University

Multilateral

Pôle EMC2 (France); IRT Jules Verne (France); Gifu University, Composite Materials Center (Japan); Kanazawa Institute of Technology, Innovative Composite Materials Research and Development Center (Japan)

Agreement for **International Joint Research**

Asia

REPUBLIC OF KOREA

 Sungkyunkwan University, Center for Advanced Plasma Surface Technology

Agreements for Internship

International Organization

- Food and Agriculture Organization of the United Nations (FAO)
- o The United Nations Educational Scientific and Cultural Organization, Asia and the Pacific Regional Bureau for Education (UNESCO Bangkok)
- The International Organization for Migration (IOM)

Memorandum of Understanding on the Establishment of the Office

Asia

THAILAND

 Chulalongkorn University, Research Services Center of Petroleum and Petrochemical College

International Networks

- Academic Consortium 21 (AC21)
- Association of Pacific Rim Universities (APRU)
- Japan Academic Network in Europe(JANET)
- Japan-Canada Academic Consortium(JACAC)
- · Japanese-Swedish University Connection (MIRAI) Japan-UK Research and Education Network
- for Knowledge Economy Initiatives(RENKEI)
- Japanese Universary Network in the Bay Area (JUNBA)
- Open Education Consortium
- University Based Institute for Advanced Study (UBIAS)
- University Mobility in Asia and the Pacific(UMAP)

Overseas Research and Education Bases

- China Center for International Exchange (Shanghai, China)
- Uzbekistan Office (Tashkent, Uzbekistan)
- European Center (Freiburg, Germany)
- Bangkok Office (Bangkok, Tailand) • Technology Partnership, Inc. (North Carolina, USA)
- · Centers for research and education in the field of law(Tashkent, Uzbekistan • Ulaanbaatar, Mongolia • Hanoi/Ho Chi Minh City, Vietnam
- · Phnom Penh, Cambodia · Yangon, Myanmar • Yogyakarta, Indonesia • Vientiane, Laos) • Field Research Center (Ulaanbaatar, Mongolia)
- Asian Satellite Campuses Institute (Phnom Penh, Cambodia/Ulaanbaatar, Mongolia/ Hanoi, Vietnam/Tashkent, Uzbekistan/ Vientiane, Laos/Los Banos, Philippine)
- Nagoya University/Mongolian National University of Education Joint Support Center for Child Development(Ulaanbaatar, Mongolia)
- The Cooperative Center for Resilience Research, National University of Mongolia and Nagoya University (Ulaanbaatar, Mongolia)

Nagoya University Outline

- Organizational Structure
- Figures / International Exchange
- Access / The City of Nagoya



Campus Consortiums Technical Center

Figures

Staff

		As of	May 1, 2018
Members	of the Board of Trustees		
Presiden	nt		1
Trustees			7
Auditors			2
Total			10
Staff (Ful	I-time)		
Faculty	Professors	652	(62)*1
	Associate Professors	518	(95)
	Lecturers	161	(110)
	Assistant Professors	393	(351)
	Research Associates	3	
	Researchers	0	(188)
Specialis	st	4	(2)
Universi	ty Research Administrator	1	(34)
School T	eachers at Affiliated Schools	35	
Adminis	trative / Technical Staff*2	2,190	(150)
Total		3,957	(992)

^{*1} Data in parenthesis show the number of staff under limited-time contracts.

International Students by School

	FY2017
School / Graduate School	
Humanities(Letters)	359
Education	83
Law	356
Economics	201
Informatics	102
Informatics and Sciences	8
Science	137
Medicine	190
Engineering	540
Agricultural Sciences	163
International Development	218
Mathematics	14
Languages and Cultures	76
Environmental Studies	214
Information Science	44
Pharmaceutical Sciences	4
Institute of Materials and Systems for Sustainability	2
Institute for Space-Earth Environmental Research	5
Research Institute of Environmental Medicine	3
Research Center of Health, Physical Fitness and Sports	1
International Education & Exchange Center	95
International Language Center	67
Student Exchange Division	6
Total	2,888

Student Enrollment

As of May 1, 2018

Name of Schools / Graduate Schools	Undergradi	uate Courses	Graduate Courses		Total
Name of Schools / Graduate Schools	Degree seeking	Non-degree seeking	Degree seeking	Non-degree seeking	TOTAL
Humanities	588	77	403	24	1,092
Education	318	21	221	15	575
Law	678	30	217	56	981
Economics	948	28	173	7	1,156
Informatics	281	25	360	12	678
Informatics and Sciences	208	-	_	-	208
Science	1,222	31	554	7	1,814
Medicine	1,537	61	978	25	2,601
Engineering	3,186	49	1,721	21	4,977
Agricultural Sciences	758	10	430	10	1,208
International Development	-	_	233	10	243
Mathematics	-	-	153	8	161
Languages and Cultures	_	_	59	-	59
Environmental Studies	_	_	432	33	465
Information Science	-	-	61	-	61
Pharmaceutical Sciences	-	_	92	2	94
Human Informatics	-	_	1	-	1
International Education & Exchange Center	_	5	_	-	5
International Language Center	_	54	_	-	54
Research Institute of Environmental Medicine	-	3	-	-	3
Institute for Space-Earth Environmental Research	-	1	_	-	1
Institute of Materials and Systems for Sustainability	_	1	_	-	1
Research Center of Health, Physical Fitness and Sports	-	1	-	-	1
Total	9,724	397	6,088	230	16,439

^{*}English names for the above organizations are tentative.

^{*2} Data include medical staff of the University Hospital.

International Exchange

International Students by Country / Region

internatio		
Asia	Bangladesh	26
Asia	Bhutan	4
	Cambodia	77
	China	1,162
	East Timor	2
	Hong Kong	22
	India	37
	Indonesia	106
	Republic of Korea	254
	Laos	24
	Malaysia	55
	Mongolia	61
	Myanmar	31
	Nepal	7
	Pakistan	5
	Philippines	36
	Singapore	20
	Sri Lanka	17
	Taiwan	90
	Thailand	119
	Vietnam	142
	Subtotal	2,297
Pacific	Australia	26
Pacific		
	Fiji	1
	Republic of the Marshall New Zealand	
	Republic of the Marshall New Zealand	Islands 1
	Republic of the Marshall	Islands 1
	Republic of the Marshall New Zealand Palau	Islands 1
	Republic of the Marshall New Zealand Palau Papua New Guinea Samoa	1 1 3
	Republic of the Marshall New Zealand Palau Papua New Guinea Samoa Solomon Islands	1 1 3 2
	Republic of the Marshall New Zealand Palau Papua New Guinea Samoa Solomon Islands Kingdom of Tonga	Slands 1 1 1 3 2 1
	Republic of the Marshall New Zealand Palau Papua New Guinea Samoa Solomon Islands Kingdom of Tonga Subtotal	Slands 1 1 1 3 2 1 2 38
Europe	Republic of the Marshall New Zealand Palau Papua New Guinea Samoa Solomon Islands Kingdom of Tonga Subtotal Armenia	Islands
Europe	Republic of the Marshall New Zealand Palau Papua New Guinea Samoa Solomon Islands Kingdom of Tonga Subtotal Armenia Austria	Islands
Europe	Republic of the Marshall New Zealand Palau Papua New Guinea Samoa Solomon Islands Kingdom of Tonga Subtotal Armenia Austria Azerbaijan	Islands
Europe	Republic of the Marshall New Zealand Palau Papua New Guinea Samoa Solomon Islands Kingdom of Tonga Subtotal Armenia Austria Azerbaijan Bulgaria	Islands
Europe	Republic of the Marshall New Zealand Palau Papua New Guinea Samoa Solomon Islands Kingdom of Tonga Subtotal Armenia Austria Azerbaijan Bulgaria Belgium	Islands
Europe	Republic of the Marshall New Zealand Palau Papua New Guinea Samoa Solomon Islands Kingdom of Tonga Subtotal Armenia Austria Azerbaijan Bulgaria Belgium Republic of Cyprus	Islands 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Europe	Republic of the Marshall New Zealand Palau Papua New Guinea Samoa Solomon Islands Kingdom of Tonga Subtotal Armenia Austria Azerbaijan Bulgaria Belgium Republic of Cyprus Republic of Croatia	Islands 1 1 1 1 1 1 2 2 38 1 1 2 1 1 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Europe	Republic of the Marshall New Zealand Palau Papua New Guinea Samoa Solomon Islands Kingdom of Tonga Subtotal Armenia Austria Azerbaijan Bulgaria Belgium Republic of Cyprus Republic of Croatia Czech Republic	Islands 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Europe	Republic of the Marshall New Zealand Palau Papua New Guinea Samoa Solomon Islands Kingdom of Tonga Subtotal Armenia Austria Azerbaijan Bulgaria Belgium Republic of Cyprus Republic of Croatia Czech Republic Denmark	Islands 1 1 1 1 3 2 1 2 38 1 2 1 3 1 1 1 1 1 1 1 1 1 1
Europe	Republic of the Marshall New Zealand Palau Papua New Guinea Samoa Solomon Islands Kingdom of Tonga Subtotal Armenia Austria Azerbaijan Bulgaria Belgium Republic of Cyprus Republic of Croatia Czech Republic	Islands 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1

France	28
	45
	3
	3
	4
	13
	5
Kyrgyz Republic	1
Latvia	1
Republic of Lithuania	1
Montenegro	1
Netherlands	1
Norway	5
Poland	10
Romania	4
Russia	9
Serbia	1
Slovak Republic	2
Spain	5
Sweden	10
Switzerland	3
U.K.	30
Ukraine	5
Uzbekistan	38
Subtotal	249
Canada	15
United States	91
United States Subtotal	91
Subtotal	
Subtotal Argentina	106
Subtotal	106
Subtotal Argentina Brazil Chile	106 3 17
Subtotal Argentina Brazil Chile Colombia	106 3 17 1 3
Subtotal Argentina Brazil Chile Colombia Republic of Costa Rica	106 3 17 1 3
Subtotal Argentina Brazil Chile Colombia Republic of Costa Rica Ecuador	106 3 17 1 3 1 3
Subtotal Argentina Brazil Chile Colombia Republic of Costa Rica Ecuador El Salvador	106 3 17 1 3 1 3
Subtotal Argentina Brazil Chile Colombia Republic of Costa Rica Ecuador El Salvador Honduras	106 3 17 1 3 1 3 1
Subtotal Argentina Brazil Chile Colombia Republic of Costa Rica Ecuador El Salvador Honduras Jamaica	106 3 17 1 3 1 3 1 1 2
Subtotal Argentina Brazil Chile Colombia Republic of Costa Rica Ecuador El Salvador Honduras Jamaica Mexico	106 3 17 1 3 1 3 1 1 1 2
Subtotal Argentina Brazil Chile Colombia Republic of Costa Rica Ecuador El Salvador Honduras Jamaica Mexico Peru	106 3 17 1 3 1 1 1 2 10
Subtotal Argentina Brazil Chile Colombia Republic of Costa Rica Ecuador El Salvador Honduras Jamaica Mexico	106 3 17 1 3 1 3 1 1 1 2
	Germany Greece Hungary Republic of Iceland Italy Kazakhstan Kyrgyz Republic Latvia Republic of Lithuania Montenegro Netherlands Norway Poland Romania Russia Serbia Slovak Republic Spain Sweden Switzerland U.K. Ukraine Uzbekistan Subtotal

	Afghanistan	FY201
Middle East	Bahrain	
	Iran	-
	Israel	
	Lebanese Republic	- 2
	Oman	-
	Saudi Arabia	
	Syria	
	Turkey	1.
	Yemen	
	Subtotal	5
	Algeria	-
Africa	Benin	
	Cameroon	
	The Democratic Republic	
	of the Congo	;
	Egypt	2
	State of Eritrea	
	Ethiopia	
	Republic of The Gambia	
	Ghana	
	Guinea	
	Ivory Coast	
	Kenya	
	Madagascar	
	Malawi	
	Republic of Mali	
	Kingdom of Morocco	į
	Mozambique	
	Nigeria	-
	Senegal	
	Seychelles	
	Tanzania	
	Tunisia	
	Uganda	
	Republic of Zimbabwe	
	Zambia	
	Subtotal	8
Total (115 Count	tries / Regions)	2.88

Students Going Abroad by Country / Region

Asia	Cambodia	57
	China	53
	Hong Kong	5
	India	8
	Indonesia	39
	Republic of Korea	52
	Laos	24
	Malaysia	18
	Mongolia	30
	Myanmar	10
	Nepal	9
	Philippines	26
	Singapore	13
	Sri Lanka	1
	Taiwan	13
	Thailand	104
	Vietnam	9
	Subtotal	471
Pacific	Australia	63
	Kingdom of Tonga	1
	New Zealand	3
	Papua New Guinea	1
	Subtotal	68

Europe	Austria	10
	Belgium	1
	Denmark	6
	France	49
	Germany	61
	Greece	3
	Iceland	2
	Italy	7
	Netherlands	2
	Kyrgyzstan	6
	Norway	6
	Poland	5
	Portugal	1
	Russia	4
	Spain	3
	Sweden	8
	Switzerland	13
	U.K.	42
	Uzbekistan	18
	Subtotal	247

		FY 201
North America	Canada	34
	United States	159
•	Subtotal	193
Latin America	Chile	2
and the Caribbean	Colombia	3
	Mexico	2
	Nicaragua	1
•	Subtotal	8
Middle East	Iran	1
	Subtotal	1
Africa	Cameroon	2
	Egypt	2
	Ghana	2
	Kenya	7
	Mozambique	1
	Nigeria	3
	Republic of South Africa	2
	The Democratic Republic of the Congo	1
	Uganda	2
	Subtotal	22
Total (56 Countries / Regions)		

Access For Gifu For Seto Nagoya Dome-mae Yada For Kyoto · Osaka Daiko Campus For Takabata Nagoy For Fujigaoka Nakamura Nagoya Daigaku 🗞 For Osaka For Akaike · Toyota Kanavan For Toyohashi Kinjo-Futo

Subway Sakura-dori Line Subway Meijo Line Subway Kamiiida Line Subway Meiko Line JR Tokaido Shinkanser JR Tokaido Line JR Chuo Line JR Kansai Line

----- Meitetsu Line

+---- Kintetsu Line

Aonami Line

To Higashiyama Campus

From Nagoya Station: Take the Subway Higashiyama Line to Motoyama Station (16 min), then transfer to the Subway Meijo Line to Nagoya Daigaku Station (2 min). Higashiyama Campus is just off the subway exit.

From Centrair (Central Japan International Airport): Take the Meitetsu Line to Kanayama Station (24 min), then transfer to the Subway Meijo Line to Nagoya Daigaku Station (21 min).

To Tsurumai Campus

From Nagoya Station: Take the JR Chuo Line (bound for Tajimi) to Tsurumai Station (6 min), then walk 5 min.

To Daiko Campus

From Nagoya Station: Take the Subway Higashiyama Line to Sakae Station (5 min), transfer to the Subway Meijo Line to Nagoya Dome-mae Yada Station (12 min), then walk 5 min.

To Nagoya Station

From Centrair (Central Japan International Airport): Take the Meitetsu Line (28 min). From Tokyo Station: Take the Shinkansen (101 min). From Shin-Osaka Station: Take the Shinkansen (52 min).

The City of Nagoya



Located in the heart of Japan, the Chubu region has played a central role in Japan's history and has long enjoyed a flourishing culture and economy. The area is well known as the home of Oda Nobunaga, Toyotomi Hideyoshi and Tokugawa Ieyasu, the three leaders who unified Japan over 400 years ago, bringing an end to the "Period of Warring States." Nagoya Castle, originally built by Tokugawa leyasu and famous for the pair of golden dolphins on top of its donjon, serves as the region's landmark.

Today, this vibrant metropolis occupies an important place in Japan's political and economic spheres. With a population of 2.3 million, Nagoya is the nerve center of the Chubu Industrial Zone, a merger of both traditional and modern industries, most notably the automotive industry. Nagoya offers a variety of urban conveniences, with shops, restaurants and leisure activities that cater to any taste, making it an exciting place to live, work and study.

Nagoya University

^{*}Regional classification is based on the standards of the Ministry of Foreign Affairs in Japan.

^{*}Regional classification is based on the standards of the Ministry of Foreign Affairs in Japan.