# University

# Graduate School of

# Graduate School code：33

**Web site:** ***http://www.engg.nagoya-u.ac.jp/en/index.html***

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| **1. Graduate School code** | 33 | |
| **2. Maximum number of participants** | 2 participants for every year（for Graduate School of Engineering and Graduate School of Environmental Studies） | |
| **3. Fields of Study** | □Environmental Science □Marine Science □Meteorology ☑Natural Disaster/ Disaster Prevention Science □Tourism □Politics □Economics □Sociology □Education ☑Engineering □Agriculture (incl. Fisheries) □Geology □ICT □Medical Science □Others( ) | |
| **Sub Fields** | 【Engineering】Civil and Environmental Engineering | |
| **4. Program and Degree** | **Program** | Global Environmental Leaders Program / Graduate School of Engineering |
| | **Degree** | Master's Degree in Engineering |
| **5. Standard time table (Years needed for graduation)** | 2 years as a Master's Student (for 4.(1) Engineering) | |
| **6. Language of Program** | (1) Lecture: All lectures in English<br>(2) Text: English but Japanese text will be used partially while English instructions are given orally.<br>(3) Laboratory work: Safety instructions are written in English. Conducting of the research is generally instructed by the supervisor in English.<br>(4) Seminar: Seminars including Japanese students are generally in Japanese, but there are many occasions where foreign students can interact in seminars in English.<br>(5) Thesis Guidance by academic supervisor is regularly conducted in English. | |
| **7. Desirable English level and Necessary Academic background** | **Linguistic Ability** | (1) Submitting of obtained score of either TOEFL IBT:61, PBT:500, IELTS:5.0 or higher is Mandatory. |
| | **EJU, IELTS, GRE or else** | (2) At least 16 years of academic background or equivalent |
| **8. Prior Inquiry From Applicants (Before Submission of Application Documents)** | Ideal | |
| **9. Website** | (1) Global Environmental Leaders Program (NUGELP)<br>http://www.civil.nagoya-u.ac.jp/nugelp/index.html<br>(2) Department of Civil Engineering<br>http://www.civil.nagoya-u.ac.jp/index.html<br>(3) Graduate School of Engineering<br>http://www.engg.nagoya-u.ac.jp/en/index.html<br>(4) Nagoya University<br>http://en.nagoya-u.ac.jp/ | |
| **10. Professors and Associated Professors** | **Name** | **Research Subject、Contact (e-mail)、Special message for the Future students** |

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| | Contact Address | E-mail Address for inquiries:<br>To: fso-jica@civil.nagoya-u.ac.jp |
| | Kazuo TATEISHI<br>( Mr.)<br>Professor, Doctor of Engineering<br>(Graduate School of Engineering) | Research orientation:<br>Steel Structures, Maintenance Engineering<br>Research topics:<br>- Fatigue and fracture of steel bridges<br>- Fatigue of steel-concrete composite slab<br>- Extremely low cycle fatigue of steel structures |
| | Hikaru NAKAMURA<br>(Mr.)<br>Professor, Doctor of Engineering<br>(Graduate School of Engineering) | Research orientation:<br>Concrete Mechanics, Structural Engineering, Earthquake Engineering<br>Research topics:<br>- Non-linear analysis of concrete structures<br>- Durability mechanics of concrete<br>- Seismic design of concrete structures |
| | Norimi MIZUTANI(Mr.)<br>Professor, Doctor of Engineering<br>(Graduate School of Engineering) | Research orientation:<br>Coastal and Ocean Engineering<br>Research topics:<br>- Tsunami disasters and their countermeasures<br>- Study on dynamic interaction among wave, structure and foundation<br>- Flow dynamics in wave-current co-existing field and sediment transport |
| | Yuji TODA (Mr.)<br>Professor, Doctor of Engineering<br>(Graduate School of Engineering) | Research orientation:<br>River Engineering, Eco-Hydraulics<br>Research topics:<br>- Fluid flow-biological-chemical interaction<br>- Primary production of periphyton<br>- Nutrient transport in river |
| | Masaki NAKANO(Mr.)<br>Professor, Doctor of Engineering<br>(Graduate School of Engineering) | Research orientation:<br>Geotechnical Engineering<br>Research topics:<br>- Mechanical behavior of new geomaterial made from surplus soil and industrial by-product<br>- Mechanical behavior of intermediate-soils and problem soils<br>- Large compression of soil due to decay of structure |

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| | Toshihiro NODA<br>( Mr.)<br>Professor, Doctor of Engineering<br>(Graduate School of Engineering) | Research orientation:<br>Geotechnical Engineering<br>Research topicss<br>- Soil-water coupled dynamic/static finite deformation analysis<br>- Interactive behavior of soil-structure system<br>- Development/interpretation of principle in soil improvement/reinforcement method |
| | Toshiyuki YAMAMOTO<br>(Mr.)<br>Professor, Doctor of Engineering<br>(Graduate School of Engineering) | Research orientation:<br>Transportation Planning<br>Research topics:<br>- Travel Behavior Analysis<br>- Environmentally Sustainable Transport<br>- Intelligent Transport System |
| | Arata KATAYAMA<br>(Mr.)<br>Professor, Doctor of Engineering<br>(Graduate School of Engineering) | Research orientation:<br>Microbial Ecological Engineering, Environmental Engineering<br>Research topics:<br>- Microbial remediation of soil and ground water contaminated with polychlorinated aromatic compounds<br>- Passive Remediation Technologies such as Permeable Reaction Barrier<br>- Refinary technology for biological wastes |
| | Kiichiro HAYASHI (Mr.)<br>Professor, Dr. of International Studies (Graduate School of Engineering) | Research orientation:<br>Environmental Assessment, International Environmental Cooperation<br>Research topics:<br>- Development of EcoTopia Indicators for evaluating sustainable society<br>- Environmental and biodiversity and ecosystem service assessment<br>- Environmental policy development |
| | Yasuo KITANE<br>(Mr.)<br>Associate Professor, Ph.D.<br>(Graduate School of Engineering) | Research orientation:<br>Structural Engineering, Composite Structures<br>Research topics:<br>- Structural applications of fiber-reinforced polymer composites<br>- Repair strategy of corrosion-damaged steel structures<br>- Long-term performance of bridge rubber bearings |

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| | Mikito HIROHATA (Mr.) Associate Professor, Doctor of Engineering (Graduate School of Engineering) | Research orientation:<br>Structural Engineering, Steel Structures, Welding Engineering<br>Research topics:<br>- Application of welding and thermal technologies on repair / reinforcement and maintenance of steel structures<br>- Performance evaluation of welded structures |
| | Takeshi HANJI (Mr.) Associate Professor, Doctor of Engineering (Graduate School of Engineering) | Research orientation:<br>Steel Structures, Bridge Engineering<br>Research topics:<br>- Fracture and Fatigue in Steel Structures<br>- Seismic Assessment and Rehabilitation of Steel Bridges<br>- Applications of Image Technique to Infrastructures |
| | Yoshihito YAMAMOTO (Mr.) Associate Professor, Doctor of Engineering (Graduate School of Engineering) | Research orientation:<br>Concrete Mechanics, Structural engineering<br>Research topics:<br>- Non-linear analysis of concrete structures<br>- Durability mechanics of concrete<br>- Seismic design of concrete structures |
| | Shotaro YAMADA (Mr.) Associate Professor, Doctor of Engineering (Graduate School of Engineering) | Research orientation:<br>Geotechnical Engineering<br>Research topics:<br>- Progressive failure of soil accompanied with strain localization<br>- Liquefaction and reliquefaction phenomena of sandy soil<br>- Mechanical behavior of crushable soil |
| | Kentaro NAKAI (Mr.) Associate Professor, Doctor of Engineering | Research orientation:<br>Geotechnical Engineering<br>Research topics:<br>- Description and Interpretation of Cyclic Behavior of Sand<br>- Interpretation of the Difference between Sand and Clay<br>- Dynamic Analysis of Structured Soil |

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| | (Graduate School of Engineering) | |
| | Tomio MIWA(Mr.) Associate Professor, Doctor of Engineering (Graduate School of Engineering) | Research orientation:<br>Transportation Engineering<br>Research topics:<br>- Transport management using ITS<br>- Traffic network utilizing probe-vehicle system<br>- Understanding and modeling driver's route choice behavior |
| | Tomoaki NAKAMURA (Mr.) Associate Professor, Doctor of Engineering (Graduate School of Engineering) | Research orientation:<br>Coastal Engineering<br>Research topics:<br>- Stability of coastal structures and their foundations in fluid-structure-seabed-sediment interaction fields |
| | Ryota TSUBAKI (Mr.) Associate Professor, Doctor of Engineering (Graduate School of Engineering) | Research orientation:<br>Hydraulics, River Engineering<br>Research topics:<br>- Advanced field monitoring of fluid flow and sediment transport, High resolution inundation flow simulation and its application to mitigate physical and environmental risks |
| | Shinichiro NAKAMURA(Mr.) Lecturer Doctor of Engineering (Graduate School of Engineering) | Research orientation:<br>National Land Design , Hydrology<br>Research topics:<br>- Water resource management<br>- Urban river restoration<br>- Adaptation for climate change |
| | | For more information of professors listed above, please visit the following website:<br>http://www.civil.nagoya-u.ac.jp/english/faculty/index.html |

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| **11. Features of University** | Nagoya University (NU) was first founded in 1871 as a temporary hospital and medical school on the site of a local feudal council building in Nagoya. After undergoing several transitions, NU received its charter as a Japan's seventh Imperial University and it has grown to be one of the world's top research universities. After 1949, in the comprehensive post-war reform of the nation's educational system, Nagoya University was given a leadership role in the Chubu region. It has since grown into one of the foremost national universities in Japan. In April 2004, Nagoya University was reformed as a "National University Corporation". This transition to National University Corporation status has made it possible to manage the University under the strong leadership of the President founded upon university-wide consensus while still continuing to respect the independence and unique features of each school and department.<br>Throughout its history, NU has maintained a free and vibrant academic culture. Conducting research and education on all aspects of human beings, society, and nature, the university pursues its goal of contributing to the well-being and happiness of humankind. As an educational institution, NU aims at cultivate leaders with genuine courage and intellect. We call such leaders "Yuuki-aru chishiki-jin"; social contributors endowed with the powers of rational thought and creative imagination who have the ability to open up a new age.<br>The large and lush green campus of the University, only a short subway ride from the lively city center of Nagoya, provides a comfortable setting for students to focus on fulfilling ambitious goals and satisfying their thirst for knowledge Today, NU is taking new steps to become a globalized university where students are able to acquire comprehensive knowledge, develop personal ethics and aspire to international careers. |
| **12. Features of Graduate School** | The Department of Civil Engineering was founded within the Faculty of Engineering, Nagoya University, in 1961, immediately in the wake of the 1959 Isewan Typhoon which caused significant damage in the Tokai area.<br>The department has been committed to studies on Structural engineering and materials, River and maritime engineering, Soil mechanics and geotechnical engineering, Infrastructure systems planning and management, Environment cohabitation and ecological system, Infrastructure technology development and transfer, and National land design, with the strong cooperation of the Graduate School of Environmental Studies. Currently, there are twenty-seven faculty members in the department (including the Graduate School of Environmental Studies), and we maintain a low student-faculty ratio.<br>In the 50 years since the department was founded, the department has accepted many foreign students from various countries, and nearly 300 overseas students have completed courses and graduated from the department.<br>For more information, please visit our website: http://www.civil.nagoya-u.ac.jp/index.html |
| **13. Features and Curriculum of Program** | [Expected outcome of the program]<br>(i) Knowledge and experience in infrastructure and environmental conservation mainly based on civil |

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| | engineering<br>Nagoya University Global Environmental Leaders Program (NUGELP) aims to nurture so-called T-shaped human resources, which retain deep knowledge on a specific discipline (the vertical line of " T ") and broad knowledge in interdisciplinary approach (the horizontal line of " T ") in a balanced mixture. For the former knowledge, students will be able to acquire advanced knowledge and knowhow on infrastructure development and environmental conservation under the supervision of academic advisor(s) who specialize mainly in civil engineering and environmental studies. The students will then acquire cross-disciplinary perspectives on the programs, such as climate change, water and waste management, etc. through the course works.<br>(ii) International communication skills<br>Through the discussion-oriented course works, students will be able to acquire international communication skills. The program puts its focus on high level communication skills that are essential as policy makers or leaders such as correctly understanding the research and issues, making presentations and reports based on discussions with instructors and course mates, rather than putting its emphasis on literal English skills only.<br>(iii) Concrete policy making skills<br>Through discussion sessions (Seminars) with academic advisor(s) and lab mates, research oriented internship, presentations and reporting, students will be able to plan and propose appropriate countermeasures toward concrete issues.<br>(iv) Accomplishment as a future leader and network enhancement<br>The NUGELP curriculum is carefully designed to nurture future environmental leaders in Asia and Africa. The participants, both international and Japanese, are highly motivated and qualified as potential future global leaders, with whom the students will enjoy active interaction and give synergetic effects of learning each other. Such an environment will create close ties among instructors and students and give the students great opportunities to enhance their global human network.<br>(v) Continuous cooperation with NUGELP and Nagoya University<br>All alumni can receive newsletters from NUGELP and can attend online community sites managed by the program office, which enable sustained relationships between the JDS, PEACE, and ABE fellow returnees and the faculty. Besides, NUGELP will host a joint seminar and an overseas study tour in the fellows' home counties (or surrounding countries with similar situations) by making maximum use of our alumni network.<br>Nagoya University, together with some other universities, concluded a comprehensive academic agreement with a lot of universities in the world as part of an ongoing effort to facilitate academic cooperation. Such frameworks enable both Nagoya University and the students to establish a foundation for further cooperation after they return to their own countries. This program returnees can expect to see joint research opportunities, human resource exchanges and advice from their academic supervisors. |

[Outline of the usual program]

NUGELP can realize the above five outcomes, and its detail is described below.

1. Nagoya University Global Environmental Leaders Program (NUGELP)

NUGELP is an international master's/doctoral program which aims to nurture future environmental leaders in Asia and Africa. It offers a comprehensive curriculum through which students will be able to propose and implement concrete solutions toward problems related to development and environment under intensive instructions by academic advisors mainly specialized in civil engineering. The program had the first student intake in 2008 and receives students from various countries including the Philippines, China, Indonesia, Vietnam, Myanmar and Kenya who are learning in the international environment. NUGELP is implemented jointly by the Graduate School of Environmental Studies and the Graduate School of Engineering, and the students will be enrolled in the former schools as a full-time master's program students with a focus on civil engineering. This program offers the following special academic menus. Details and the latest information is available at our website. http://www.civil.nagoya-u.ac.jp/nugelp/index.html

2.Unique curriculum

(1)Basic knowledge and skills as a leader

In order to become leading policy makers (global leaders), students are required to retain international communication skills and good understanding toward important concepts regarding urban infrastructure development, and development and environment in a broad context. The courses such as English Communication in Environmental Issues, Sustainability and Environmental Studies, and Civil Engineering and Policies for Developing Countries provide essential knowledge and skills as a leader.

(2)Advanced technologies and knowhow mainly based on civil engineering and environmental studies

This program provides a variety of courses to enhance the vertical line (deep knowledge in a specific discipline) of the T-shaped human resources, mainly based on civil engineering. The courses such as Advanced Maintenance of Infrastructures, Advanced Soil Mechanic, Advanced Composite Materials, Environmental Systems Analysis and Planning, Transportation Systems Analysis, Advanced Traffic Engineering and Management, Advanced Infrastructure Planning, Advanced Maintenance of Infrastructures, Advanced Offshore Engineering, and Conservation and Ecotoxicology of Soil and Water provide advanced technologies and knowhow in each research area.

(3)Interdisciplinary topics

As for the horizontal line (broad knowledge in interdisciplinary areas) of the T-shaped human resources, the program offers quite a number of courses such as Low Carbon Cities Studies, Climate Change Policies, Water and Waste Management Policies, Water and Waste Engineering to broaden students' policy perspectives in each focal area.

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| | (4)Research-oriented internship and master's thesis project<br>Students will design and implement internship (Global Research Internship: two credits) in private companies and international organizations in the Nagoya-Chubu region or overseas survey sites in order to explore how the advanced knowledge and technologies which have been acquired from the course works can be applied to solve actual environmental problems in developing countries. Students will then compile a master's thesis under the intensive supervision of academic advisor.<br><br>NUGELP offers all its courses in English within a comprehensive and interdisciplinary curriculum. Master's program students are required to obtain a minimum of 30 credits mainly from the courses as well as to defend their Master's thesis. Syllabus details for each course are available at the program website.<br>http://www.civil.nagoya-u.ac.jp/nugelp/curriculum/syllabus.html |
| **14. Academic Schedule** | Graduate School of Engineering and Graduate School of Environmental Studies<br>FIRST ACADEMIC YEAR<br>October 1, 1st year<br>- Admission to the Nagoya University Global Environmental Leaders Program (NUGELP) as a Master Student<br>- Guidance for new students<br>October, 1st year-February, 2nd year (Fall Semester): First Semester<br>- Attend lectures, practices and seminars<br>- Individual instruction by academic advisor(s)<br>- NUGELP Workshop (Reference): Presentation and discussion by students and academic advisors<br>April, 2nd year-August, 2nd year (Spring Semester): Second Semester<br>- Attend lectures, practices and seminars<br>- Individual instruction by academic advisor(s)<br>- NUGELP Workshop (Reference): Presentation and discussion by students and academic advisors<br>September, 2nd year (Reference): Global Research Internship<br>- Group research project working in a group of international and Japanese students at private companies and local governments.<br><br>SECOND ACADEMIC YEAR<br>October, 2nd year-February, 3rd year (Fall Semester): Third Semester<br>- Attend lectures, practices and seminars<br>- Individual instruction by academic advisor(s)<br>- NUGELP Workshop (Reference): Presentation and discussion by students and academic advisors<br>March, 3rd year<br>- Interim reporting and discussion toward a Master's thesis |

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| | - Discuss with students and academic advisor(s)<br>April-August, 3rd year (Spring Semester): Fourth Semester<br>- Attend lectures, practices and seminars<br>- Individual instruction by academic advisor(s)<br>- NUGELP Workshop (Reference): Presentation and discussion by students and academic advisors<br>- Compile a Master's thesis<br>June, 3rd year: Submission and defense of the Master's thesis<br>September 30, 3rd year: Completion of the Master's program<br>- Receive a master's degree (Master of Environmental Studies or Master of Engineering) and program certificate |

## 15. Supporting service to International Students

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| International Students Support Center for Consulting or counseling about daily life, campus life, cross-cultural adjustment etc. | Counseling services and social services / Coordinating Japanese language & culture course for international students' family members.<br>For more information,<br>http://acs.iee.nagoya-u.ac.jp/en/ |
| Provision of Student Dormitory | Nagoya University has 6 dormitories for international students. For more information,<br>http://en.nagoya-u.ac.jp/academics/campus_life/housing/index.html |
| Japanese Language Education Program for International Students | International Center for Languages offers the following courses in Japanese language. (1) Standard Courses in Japanese / Intensive courses in Japanese, (2) Online Japanese Courses, (3) Kanji, (4) Introductory Lectures in Japanese Studies, (5) Intensive Course in Elementary Japanese, (6) Intensive Course in Advanced Japanese. |
| Cultural Activities | ・Day Trip for International Students which is deepen understanding of Japan through visiting historical and traditional sites including the world heritages.<br>・Cooperation to community-based sightseeing tours for international students. |
| Any special attention to Religious Practice | Halal food available in a restaurant on campus / Halal shop & restaurant near campus / Consideration to religious practices |
| facilities (Library etc) | The University Library is composed of the Central Library, the Medical Library, and departmental libraries within the faculties, institutes, and other research centers. The library holds 3,296,394 volumes of books. Each library is connected by an integrated library computer system at the Central Library via campus LAN.<br>http://www.nul.nagoya-u.ac.jp/index_e.html |
| Please state other particular supporting service you are endeavoring, if any. | Many outreach programs and opportunities of cultural exchange, global leadership, etc., on campus / Services for students with disabilities / supporting Japanese language & culture course for international students' family members. |

## 16. Message to Prospective International Students

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| **Message from University** | Nagoya University was first founded in 1871 as a temporary hospital and medical school. After undergoing several transitions, Nagoya Imperial University was established in 1939. The name of the university was changed to Nagoya University in 1949 and it has grown to be one of the world's top research universities. Throughout its history, NU has maintained a free and vibrant academic culture. Conducting research and education on all aspects of human beings, society, and nature, the University pursues its goal of contributing to the well-being and happiness of humankind. As an educational institution, Nagoya University aims to cultivate leaders with genuine courage and intellect. We call such leaders "Yuuki-aru Chishiki-Jin": Social contributors endowed with the powers of rational thought and creative imagination who have the ability to open up a new age.<br>The large and lush green campus of the University, only a short subway ride from the lively city center of Nagoya, provides a comfortable setting for students to focus on fulfilling ambitious goals and satisfy their thirst of knowledge. Today, Nagoya University is taking new steps to become a globalized university where students are able to acquire comprehensive knowledge, develop personal ethics and aspire to international careers.<br><br>Please refer to the Website for details. |
| **Voice of International Students** | Please see the Website. |