

# Re-Inventing Japan Project Nagoya University

【Name of project】(Adopted year: FY2011, Type B-1)

Japan-US Advanced Collaborative Education Program (JUACEP)

【Aim of project, Ideals for Global Human Resources on project】

To provide top-level research-based education for master's course students in Engineering, and to stimulate Japanese students and broaden their scope through co-study and co-work with overseas students in a multi-cultural environment.

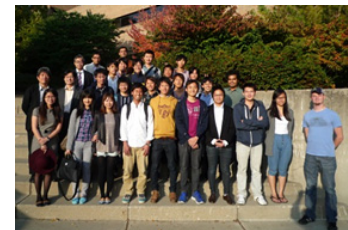
【Summary of project】

Co-education with the University of Michigan and University of California Los Angeles (UCLA). Exchange of students and faculty to promote collaborative research and develop a global educational program leading to a joint graduate school in the future.

## ■ Forming University Networks with Quality Assurance

Nagoya is called the "hub of Japanese technology." Nagoya University takes advantage of this to provide hands-on research education by closely working with local but global industrial companies. The official agreement between NU and U.S universities allows credit exchange and transfers that ensure the quality of the program.

〈Nagoya University students in Michigan〉



### ○ Short (Summer) Exchange Course (2 to 3 months)

**Outbound:** Master's course students visit U.S partner universities as research scholars with a J1 visa. Two credits are given by Nagoya University.

**Inbound:** Master's course students at U.S universities visit Nagoya to carry out independent research along with intensive lectures. Nagoya University gives a maximum of 3 credits, transferrable to the students' home universities.

### ○ Medium & Long Exchange Courses (6 to 12 months)

**Outbound:** Students carry out research leading to publication in scientific journals and presentations at academic conferences. They have opportunities to use state-of-the-art equipment and facilities at U.S universities as well as taking several lectures. A maximum of 4 credits are given by Nagoya University.

**Inbound:** Students carry out NU's unique research. A maximum of 3 credits are given by Nagoya University.

## ■ Program Contents, Preparation for the Start of the Programs



〈 Test drive of Mitsubishi i-Miev 〉



〈 Lecture on Lexus LFA 〉

### ○ FY2011

**Outbound:** Sixteen graduate students visited the University of Michigan for 2 months. A total of 4 students also participated in the medium & long courses and studied/are studying at the University of Michigan or UCLA.

**Inbound:** Ten Michigan students studied "Energy Storage and Green Vehicles" at Nagoya University for 2 months. The program consisted of a research internship, 10 intensive lectures, and automobile plant tours.

**Workshop:** To promote student exchange and partnership between universities, a student workshop was held in Michigan and a faculty workshop was held in Nagoya.

	2011	2012	2013	2014	2015
Outbound	37	50	14	32	22
Inbound	0	10	22	17	37

Note : FY2011-2012 actual results, FY2013 -2015 planned

## ■ Student Mobility

○ **Outbound:** 200 NU students are expected to visit U.S universities through student exchange and workshops.

○ **Inbound:** 70 students at U.S universities are expected to visit and study at Nagoya University.

## ■ Promotion of Student Mobility Environment

○ **Outbound:** The coordinators (faculty at U.S partner universities) support visiting students to maximize the productivity of their study. An English course is prepared at Nagoya University to increase their English.

○ **Inbound:** Nagoya University provides all kinds of support, including university dormitories, counseling, Japanese classes, and careful mentoring by the hosting professors, teaching assistants, and the JUACEP team.

〈Co-work by Nagoya and Michigan students〉



〈Michigan University students in Nagoya〉

## ■ Visualization of Education Content, Dissemination of Outcomes

○ **Program PR:** JUACEP is widely recognized publicly through the JUACEP homepage, <http://www.juacep.engg.nagoya-u.ac.jp>. The activities are updated every week.

○ **Networking through SNS:** To share information and experiences and maintain friendships after the program among Nagoya University and American university students, use of SNS such as Facebook is encouraged.



**【Name of project】**(Adopted year: FY2011, Type B-1)

Japan-US Advanced Collaborative Education Program (JUACEP)

**【Aim of project, Ideals of Global Human Resource on the project】**

Provide top-notch research-based education for master's course students in Engineering. Stimulate Japanese students and broaden their scope through co-study and co-work with foreign students in multi-cultural environment.

**【Summary of project】**

Execute co-education with the University of Michigan and University of California Los Angeles (UCLA). Exchange students and faculty to promote collaborative research and develop global educational program that leads to joint graduate school in the future.

## ■ Forming the University Network with Quality Assurance

Nagoya is called "hub of Japanese technology." Nagoya University takes this advantage and provide hands-on research education by closely working with local but global industrial companies. The official agreement between Nagoya and American universities allows credit exchange and transfer that ensure the quality of the program.

⟨Nagoya University student studying at UCLA⟩



### ○ Short (Summer) Exchange Course (2 to 3 months)

**Outbound:** Master's course students visit the partner American universities as research scholars with J1 visa. Four credits are given from Nagoya University.

**Inbound:** Master's course students at American universities come to Nagoya and carry out independent research along with auditing several lectures. Nagoya University gives maximum 3 credits that is transferrable to the students' home universities.

### ○ Medium & Long Exchange Courses (6 to 12 months)

**Outbound:** Students carry out researches that leads to publication to scientific journals and presentations at academic conferences. They get opportunities to use state-of-the-art equipment and facilities at the American universities along with taking several lectures. Four credits are given from Nagoya University.

**Inbound:** Students carry out Nagoya's unique researches. Maximum 3 credits are given from Nagoya University.

## ■ Contents of the Programs, Preparation for the Start of the Programs

⟨American university students working on assembly/disassembly of a model engine ⟩



### ○ FY2013

**Outbound:** Sixteen graduate students have visited the University of Michigan/UCLA for 2 months. Also total 10 students including the students who started the program in the previous academic year have participated in the medium & long courses and studied/are studying at the University of Michigan/UCLA.

**Inbound:** Total 18 students have joined the summer course and studied at Nagoya University. The program consisted of research internship, several lectures on automotive and production engineering, and an automobile plant tour.

**Workshop:** To promote student exchange and partnership between the universities, a student workshop was held at UCLA and University of Michigan. A faculty workshop was also held in Nagoya.

## ■ Student-Mobility

○ **Outbound:** Two hundred Nagoya students are projected to visit American universities through student exchange and workshop.

○ **Inbound:** Seventy students at American universities are expected to visit and study at Nagoya University.

	2011	2012	2013	2014	2015
Outbound	37	50	50	32	22
Inbound	0	10	18	17	37

Note : FY2011-2013 results, FY2014 -2015 planned

## ■ Promotion of Student-Mobility Environment

○ **Outbound:** The coordinators (faculty at the American universities) support the visiting students to maximize productivity of their study. An English course is prepared to increase their English proficiency at Nagoya University.

○ **Inbound:** Nagoya University provides all kinds of supports including university dormitory, counseling, Japanese class, and careful mentoring by the hosting professors, teaching assistants, and the JUACEP team.

⟨Party in Ann Arbor, MI. Both Nagoya University students and UM students who studied at Nagoya University in the previous year got together.⟩



## ■ Visualization of the Content of Education, Dissemination of the Outcomes

○ **Program PR:** The JUACEP is widely recognized by public through the homepage, <http://www.juacep.engg.nagoya-u.ac.jp>. The activities are updated every week.

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**【Aim of project, Ideals for Global Human Resources on Project】**

To provide top-level international research-based education for master's course students in Engineering, to stimulate Japanese students and broaden their English ability and scope through co-study and co-work with overseas students in a multi-cultural environment.

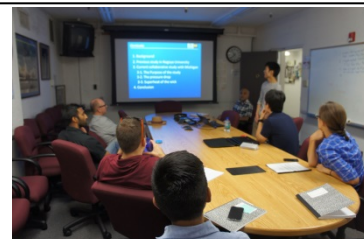
**【Summary of project】**

To carry out joint education with the University of Michigan and University of California Los Angeles (UCLA).

Exchange students and faculty to promote collaborative research and develop a global educational program that will lead to a joint graduate school in the future.

## ■ Forming a University Network with Quality Assurance

Nagoya is called the "hub of Japanese technology." Nagoya University takes advantage of this to provide hands-on research education by working closely with local but global industrial companies. The official agreement between NU and the American universities allows credit exchange and transfer that ensures the quality of the program.



(Nagoya student giving a presentation at U of M)

### ○ Short (Summer) Exchange Course (2 - 3 months)

**Outbound:** Master's course students visit our American partner universities as research scholars with a J1 visa. Four credits are given by Nagoya University.

**Inbound:** Master's course students at American universities come to Nagoya University and carry out independent research along with auditing several lectures. Nagoya University gives a maximum of three credits, which are counted as graduation credits for the participants from the University of Michigan.

### ○ Medium & Long-Term Exchange Courses (6 - 12 months)

**Outbound:** Students carry out research that leads to publication in scientific journals and presentations at academic conferences. They have opportunities to use state-of-the-art equipment and facilities at the American universities along with auditing several lectures. Two to six credits are given by Nagoya University.

**Inbound:** Students participate in NU's unique research program. Similar to the Short course, a maximum of three credits are given by Nagoya University.

## ■ Contents of the Programs, Preparation for the Start of the Programs



(Toyota plant tour)

### ○ FY2014

**Outbound:** 12 graduate students visited the University of Michigan/UCLA for two months. Also, 9 students participated in the medium course (6 months) and 1 student participated in the long course (12 months). Some students have presented their results through the program at academic conferences.

**Inbound:** 17 students from the University of Michigan/UCLA joined the two-month course and 2 students from UCLA joined the medium course. The program consisted of research internships, several lectures on automotive and production engineering, and an automobile plant tour.

**Faculty exchange:** Prof. Kurabayashi at the University of Michigan stayed in Nagoya for 3 months and educated Nagoya University students. Also a faculty workshop was held at Nagoya University. 5 U of M and 3 UCLA professors were invited. Approx. 50 Nagoya faculty and students joined the workshop.



(UCLA student doing experiment in his lab at Nagoya University)

## ■ Student Mobility

**○ Outbound:** 200 NU Graduate School of Engineering students are expected to visit the American universities through student exchange and workshops.

**○ Inbound:** 70 students from American universities are expected to visit and study at Nagoya University.

	2011	2012	2013	2014	2015
Outbound	37	50	51	22	22
Inbound	0	10	18	19	37

Note : FY2011-2014 results, FY2015 planned

## ■ Promotion of Student Mobility Environment

**○ Outbound:** The coordinators (faculty at the American universities) support the visiting students to maximize their productivity. An English course is offered to increase their English proficiency.

**○ Inbound:** Nagoya University provides all kinds of support, including university dormitories, counseling, Japanese classes, and careful mentoring by the hosting professors, teaching assistants, and the JUACEP team.



( Snapshots from the Faculty Workshop. (Left) networking between NU students and UM faculty; (right) Lab tour)

## ■ Internationalization of the university

### Information disclosure and publication of outcome

**○ Program PR:** JUACEP are lively publicized on the homepage at <http://www.juacep.engg.nagoya-u.ac.jp>.

**○ Publication and presentation:** Some students present their achievements through the program at academic conferences and publish papers.



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【Summary of project】

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Exchange students and faculty to promote collaborative research and develop a global educational program that will lead to a joint graduate school in the future.

## Forming the University Network with Quality Assurance

Nagoya is called the "hub of Japanese technology." Nagoya University takes this advantage to provide hands-on research education by working closely with local but global industrial companies. The official agreement between NU and the Michigan universities allows credit exchange and transfer that ensures the quality of the program.



〈Orientation in Nagoya〉

〈With friends at UM〉



### Short (Summer) Exchange Course (2 - 3 months)

**Outbound:** Master's course students visit University of Michigan (UM) or UCLA as research scholars with a J1 visa. Four credits are given by Nagoya University.

**Inbound:** Graduate students at UM/UCLA come to Nagoya University and carry out independent research along with auditing several lectures. Nagoya University gives a maximum of three credits, which are counted as graduation credits for the participants from the University of Michigan.

### Medium & Long-Term Exchange Courses (6 - 12 months)

**Outbound:** Students carry out research that leads to publication in scientific journals and presentations at academic conferences. They have opportunities to use state-of-the-art equipment and facilities at the American universities along with auditing several lectures. Nagoya University gives 2 to 6 credits.

**Inbound:** Students participate in NU's research groups and carry out researches. A maximum of three credits are given by Nagoya University.

## Contents of the Programs, Preparation for the Start of the Programs

〈Hands-on course and Research presentation〉 **FY2015**



**Outbound:** 5 graduate students visited the UM/UCLA for 2 months. Also, 11 students participated in the medium course (6 months). Some students have presented their results through the program at academic conferences.

**Inbound:** 23 students from the UM/UCLA joined the 3 month-course. The program consisted of research internships, several lectures on automotive and production engineering, and an automobile plant tour.

**Faculty exchange:** Prof. Kurabayashi at University of Michigan stayed in Nagoya for 1 month and educated Nagoya University students. Faculty and staff at Nagoya University, UM, and UCLA had meetings and successfully agreed that we continue this JUACEP program next year (after the end of the funding).

## Student-Mobility

**Outbound:** As planned, total 176 NU Graduate School of Engineering students have visited the American universities through student exchange and workshops.

**Inbound:** As planned, total 70 students from American universities have visited at Nagoya University.

	2011	2012	2013	2014	2015
Outbound	37	50	51	22	16
Inbound	0	10	18	19	23

## Promotion of Student Mobility Environment

**Outbound:** The coordinators (faculty at the American universities) support the visiting students to maximize their productivity. An English course is offered for Nagoya students to increase their English proficiency.

**Inbound:** Nagoya University provides all kinds of support, including university dormitories, counseling, Japanese classes, and careful mentoring by the hosting professors, teaching assistants, and the JUACEP team.



〈Program information session at UCLA〉

## Internationalization of the University, Information Disclosure and Publication of Outcome

**Program PR:** JUACEP are lively publicized on the homepage at <http://www.juacep.engg.nagoya-u.ac.jp>.

**Publication and presentation:** Several students have presented/will present their achievements through the program at academic conferences. Some have published/are preparing journal papers.