

1. Outline

【Name of project】(Adopted year: FY2014, Country (India))

Cooperative Engineer Education Program with South Indian Universities based on the Long-Term Internship Experience

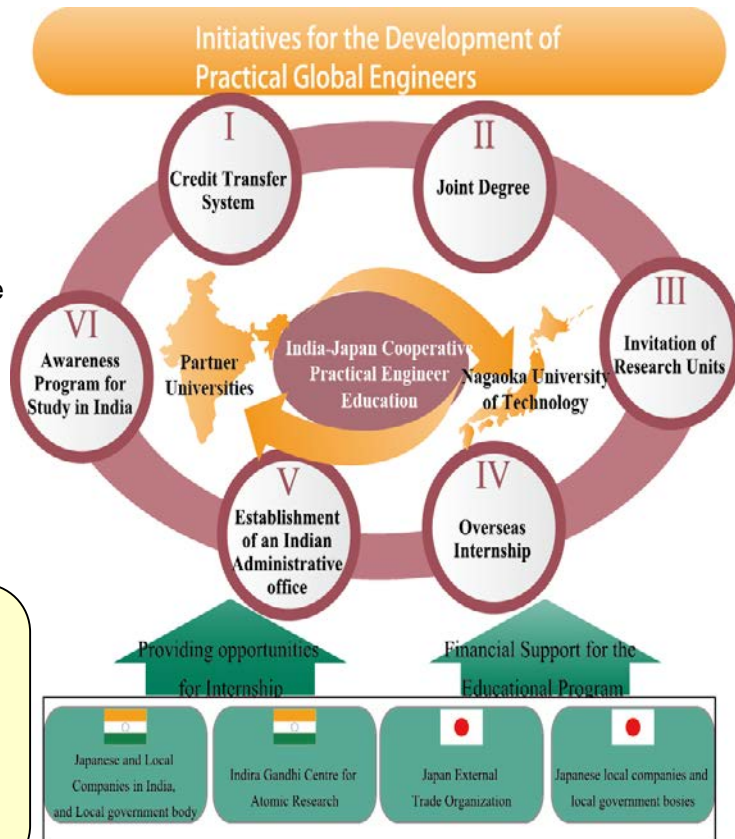
【Summary of Project】

Objective

To produce innovative and practical global engineers through a cooperative educational program with universities in India

Summary

- Establishment of a cooperative Gigaku educational system that includes a quality-assured credit transfer system and joint degree program
- Training of practical global engineers through a cooperative educational program that includes Jitsumu-Kunren overseas internships
- Development of global human resources capable of proposing solutions with cross-cultural understanding
- Production of practical Indian engineers who are sought after by Japanese companies based in India
- Future global development modelled on the joint degree program framework actualized from these concepts



Partner Universities

Indian Institute of Technology, Madras (IITM)

Indian Institute of Information, Technology and Design Kancheepuram (IIITD&M)

One of top engineering college among the world, who share philosophy of "GIGAKU" through long-lasting exchange activities.

【Summary of Exchange program】

Cultivating global practical engineer with experiences of stay in India, such as short-stay program, long-term internship and Joint degree program.

The program will also ascertain the level of accomplishments in research ability and English language ability through presentations on research results and TOEIC® examinations.

【Global Human Resource on the project】

This program strives to develop practical global engineers who can lead and communicate with an understanding of diverse values.

Specific abilities to be acquired by students:

- ✓ International research ability
- ✓ Communication ability as an Engineer(incl. English language)
- ✓ Creativity and innovation

【Feature on the project】

The project aims to develop a quality-assured cooperative educational program such as Joint degree program, as well as an industry-academia-government collaboration network program to provide an opportunity of internship in Japan for Indian students based on a Tripartite agreement with internationally influential engineering universities in India through the shared concept of "Gigaku".

【Exchange number】

	2014	2015	2016	2017	2018
Outbound	2	12	12	17	17
Inbound	4	10	10	23	23

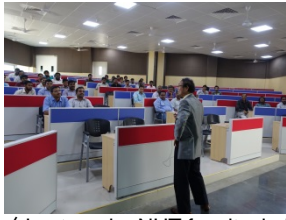
2. FY2014 Progress

【Nagaoka University of Technology】

【Name of project】(Adopted year: FY2014, Country (India))

Cooperative Engineer Education Program with South Indian Universities based on the Long-Term Internship Experience

■ Exchange Programs



〈 Lecture by NUT faculty in India 〉

In FY 2014, we exchanged faculties and students to discuss about establishment of Joint degree program and quality-assured credit transfer scheme and seek a possibility of overseas internship in both countries. As a part of faculty exchange and trail of cooperative education, both parties gave lecture and supervise experiment at partner university.

Student-Mobility

○ Outbound

In FY 2014, we dispatched 4 students to India, to seek a possibility of credit transfer scheme at graduate level.

○ Inbound

In FY 2014, we accepted 3 students from India, to establish a joint supervision system, as a trial implementation of Joint degree Program.

	2014	
	Plan	Results
Outbound	2	6
Inbound	4	3

■ Forming the University Network with Quality Assurance

An ultimate goal of the project is to establish a quality-assured student exchange program, such as credit transfer scheme and Joint degree program between partner universities.

From this point of view, we started adjusting curricula between partner universities in the field of Mechanical, Electrical, Management and Information for credit transfer scheme.

Also, we began reviewing each other's standards for course completion, degree conferral, etc. to establish a Joint degree program.

■ Promotion of Student-Mobility Environment

- Start serving vegetarian meal at university cafeteria, for accepting students with a diverse cultural background. This meal suits not only for Indian students, but also other international students.
- Assigned Indian professor in Japan and Japanese coordinator in India, to give an introduction of destination country and support exchange students.
- Held a lecture/seminar by dispatched students and faculties from partner universities, to motivate Japanese students to study in India.



〈 Vegetarian meal 〉

■ Internationalization of the university

Information disclosure and Publication of outcome

- Made a brochure to advertise the project among students, universities and industries, for the purpose of attracting students to study abroad as well as increase the number of participant companies.
- Have been creating website of the project.
- Renewed University's English website to enhance international public relation activities
- Prepare English guidebook and course guide for international students, to make their campus life smooth.
- Offered an intensive English language class for administrative staff, to accelerate internationalization of the university.

■ Notices

- As a result of FY 2014's activities, we exploited new overseas internship opportunities:
- For Japanese students: National Research Laboratory in India
- For Indian students: Japanese private enterprise with financial support
- A research paper co-authored by Japanese exchange student, Indian host professor and Japanese professor was published in an international journal.

3. FY2015 Progress

[Name of project] (Adopted year: FY2015, Country (India))

Cooperative Engineer Education Program with South Indian Universities based on the Long-Term Internship Experience

■ Exchange Programs



< Grant international student certificate >

In FY 2015, we worked on an establishment of quality-assured credit transfer system and joint degree program between IITM and IITD&M. For the sake of long-term overseas internship expansion, we negotiated with some companies and research institute in Japan and India.

In order to attract students to study abroad, we created motivating environment by giving student guidance and special lectures.

Student-Mobility

○ Outbound

In FY 2015, we dispatched 7 students as Jitsumu-Kunren overseas internship and 5 students in short-term, to develop credit transfer system at graduate level.

○ Inbound

In FY 2015, we accepted 9 students from India for establishment of a joint supervision system in credit transfer system, preparation for invitation of research unit and internship.

	2015	
	Plan	Results
Outbound	12	12
Inbound	10	9

■ Forming the University Network with Quality Assurance

- Since last year, we have continued to develop establishment of a quality-assured student exchange program, such as credit transfer system and Joint degree program between partner universities.
- We adjusted curricula between partner universities in the field of Mechanical, Electrical, Management and Information for credit transfer system.
- We came to an agreement with establishing the Joint degree program and started considering to establish a International program.

■ Promotion of Student-Mobility Environment

- Serving vegetarian meal at university cafeteria for lunch and dinner. Not only Indian students but also other international students have the meals.
- Assigned Indian professor in Japan and Japanese coordinator in India, to give an introduction of destination country at pre-departure guidance and support exchange students.
- Held a lecture/seminar by dispatched students and faculties from partner universities, to motivate Japanese students to study in India.



< pre-departure guidance by Indian professor >

■ Internationalization of the university

Information disclosure and Publication of outcome

- Made a brochure and updated website of the project to advertise the project among students, universities and industries, for the purpose of increasing the number of participant companies.
- Prepared English research laboratory guidebook for international students to make their campus life smooth.
- Held Indian Institute of Technology Madras - Nagaoka University of Technology Joint seminar at Embassy of India, as a part of promotion.
- In order to establish international cooperative educational system, the external evaluation committee which consists of external experts in various areas was held. We stated the objectives and progress of the project and exchanged of opinions.

■ Notices

- For Japanese students: dispatched 7 undergraduate students to India as Jitsumu-Kunren overseas internship (long-term internship) for 5 months.
- For Indian students: from May to July, accepted 2 students from India in accordance with tripartite agreement with a Japanese private company.
- For research unit: Invited 1 professor and 2 graduate students from IITM.

4. FY2016 Progress

[Nagaoka University of Technology]

【Name of project】(Adopted year: FY2014, Country (India))

Cooperative Engineer Education Program with South Indian Universities based on the Long-Term Internship Experience

Exchange Programs



〈 The presidents from NUT and IIITD&M at Signing Ceremony of credit transfer agreement〉

In FY 2016, we continued to work on an establishment of quality-assured credit transfer system and joint degree program between Indian Institute of Technology Madras (IITM) and Indian Institute of Information Technology Design & Manufacturing (IIITD&M).

To dispatch students from Japan and India as Jitsumu-Kunren overseas internship, we negotiated with a number of companies and institutes. As a result of negotiation, 1 Indian company and 2 Japanese companies had additionally agreed to accept students.

In order to attract students to study abroad, we created motivating environment by giving student guidance and increasing the chance to apply for a program to study abroad.

Student-Mobility

○ Outbound

In FY 2016, we dispatched 10 students as Jitsumu-Kunren overseas internship and 2 students in short-term.

○ Inbound

In FY 2016, under the agreement of a joint supervision system in credit transfer, we accepted 12 students from India for internship.

	2016	
	Plan	Results
Outbound	12	12
Inbound	10	12

Forming the University Network with Quality Assurance

- We have continued to develop establishment of a quality-assured student exchange program, such as credit transfer system and Joint degree program between the each of 2 partner universities. This is done so the students can study abroad without having to spend extra years at their home universities.
- Aiming to eventually establish a joint degree program in the future, we started to prepare to establish a double degree program. We will continue to exchange ideas and consider what needs to be organized with the Indian universities.

Promotion of Student-Mobility Environment

- Serving vegetarian meals at university cafeteria for lunch and dinner. Not only Indian students but also other international students are enjoying the meals.
- Assigned Indian professor in Japan and Japanese coordinator in India, to give an introduction of destination country at pre-departure guidance and support exchange students.
- Held a lecture/seminar by dispatched students and faculties from partner universities to motivate Japanese students to study in India.



〈 Pre-departure guidance / Report presentation by Japanese students who studied in India 〉

Internationalization of the university

Information disclosure and Publication of outcome

- Made a brochure (Japanese and English) and updated website (Japanese and English) of the project to advertise the project among students, universities and industries, for the purpose of increasing the number of participant companies.
- Prepared English version of research laboratory guidebook, program guide and disaster prevention manual for international students to make their campus life smooth.

Notices

- For Japanese students: dispatched 10 undergraduate students to India as Jitsumu-Kunren overseas internship (long-term internship) for 5 months.
- For Indian students: from May to July, accepted 1 student from India in accordance with tripartite agreement with a Japanese private company. Also, we have 2 new companies who additionally agreed to accept students for internship. We will continue to prepare for accepting students in FY2017.

5. FY2017 Progress

【Name of project】(Adopted year: FY2014, Country (India))

Cooperative Engineer Education Program with South Indian Universities based on the Long-Term Internship Experience

■ Exchange Programs

-In FY 2017, we concluded Memorandum of Agreement (MoA) between Indian Institute of Technology Madras (IITM) / Indian Institute of Information Technology Design & Manufacturing (IIITD&M) and company in Japan for Indian students internship.

-Based on MoA concluded in 2016, we newly dispatched 1 Japanese student to company in India for Jitsumu-Kunren overseas interns.

-In order to attract students to study abroad, we created motivating environment by offering various study programs and by holding a presentation session for students to introduce their experience in abroad.



〈Study Trip for Indian Exchange Students〉

Student-Mobility

○ Outbound

In FY 2017, we dispatched 8 students for Jitsumu-Kunren overseas internship, 1 student in long-term and 2 students in short-term.

○ Inbound

In FY 2017, we accepted 16 students from India for internship, invitation of research units and short-term student exchange.

	2017	
	Plan	Results
Outbound	17	11
Inbound	23	16

■ Forming the University Network with Quality Assurance

- Based on credit transfer system admitted in 2017, 1 Japanese student studied at IITM and earned credits by attending the lectures at IITM, which are approved at Nagaoka University of Technology (NUT) as credits required for completion. This scheme enables students to complete the course without having to spend extra years regardless of their study abroad.
- Aiming to eventually establish a joint degree program in the future, we have worked to establish a double degree program. We shared the schedule towards establishment of the program and what is to be organized with the Indian universities.

■ Promotion of Student-Mobility Environment

- Assigned Indian professor in Japan, to give an orientation before students start internship at Japanese institutes and to listening to exchange students so as to know their needs.
- Assigned Japanese coordinator in India, to give an introduction of destination country at pre-departure guidance and support exchange students from Japan. Her negotiation with IIITD&M leads improvements of sanitary environments of university cafeteria.



〈Lecture at IITM/ NUT Joint Seminar〉

■ Internationalization of the university, Information disclosure and Publication of outcome

- Hold a Joint Seminar with IITM at the Embassy of India in Japan, where Indian and Japanese professors, Indian students studying at NUT, and Japanese students having studied in India gave a presentation on what they have achieved under Re-Inventing Japan Project. We could widely share their achievement with other universities, companies and organizations concerning India.

■ Notices

- For Japanese students: dispatched 8 undergraduate students to India as Jitsumu-Kunren overseas internship (long-term internship) for 5 months. One of them was dispatched to a company which accepts internship students from 2017. Increase in partner companies enables more appropriate matching between companies and students, and leads to improvement in educational effect.
- For Indian students: accepted 4 students from India for internship in accordance with tripartite agreement with Japanese companies, including 2 companies newly accepted Indian students. The internship is financially supported by host companies, which is significant to continue our program.

6. FY2018 Progress

【Nagaoka University of Technology】

【Name of project】(Adopted year: FY2014, Country (India))

Cooperative Engineer Education Program with South Indian Universities based on the Long-Term Internship Experience

(Adopted year: FY2014, Country (India))

■ Exchange Programs



〈Field Trip to a Japanese company for Short-term program students, Dec.26, 2018〉

-In FY 2018, we have started a Joint-Supervision program which is essentially equivalent to the Joint-degree program. This Joint-Supervision program enables students to receive research advices by the multiple professors from home/host institutes and complete a more sophisticated degree for shorter period and with less financial burden.

-To dispatch Japanese students for Jitsumu-kunren overseas internship, we kept negotiations with Japanese and Indian companies and laboratories, and prepared to conclude the tripartite agreements between Japanese company, our university and IITM or IIITD&M.

Student-Mobility

○ Outbound

In FY 2018, we dispatched 8 students for Jitsumu-Kunren overseas internship and 4 students in short-term. We sponsored Indo-Japan Bilateral Symposium at India on July 16th and 17th 2018, and 3 of our students who had studied in India gave the presentations on their researches.

	2018	
	Plan	Results
Outbound	17	15
Inbound	23	18

○ Inbound

In FY 2018, we accepted 18 students from India for the internship, invitation of research units which accepts students and professors at the same time, and the short-term student exchange.

■ Forming the University Network with Quality Assurance

- 16 professors have been to India so far for the meetings about the education and collaboration programs as well as to check students' research progresses and living environments, and to ensure the educational standards and students safety.
- We have started a Joint-Supervision program which is essentially equivalent to the Joint-degree program, and through this Joint-Supervision program, professor at NUT started to teach 4 students in the doctoral course at IITM.

■ Promotion of Student-Mobility Environment

- A former specially-appointed professor at NUT who is from India had an orientation session to provide Japanese students with the local information for their fruitful internships. We also communicated with the exchange students from India so as to know their needs.
- We have assigned a Japanese coordinator in India to give the pre-departure guidance to Indian students, and to support exchange students from Japan.



〈At Indo-Japan Bilateral Symposium, with executives from NUT and IITM, July 16, 2018〉

■ Internationalization of the university, Information disclosure and Publication of outcome

- We sponsored Indo-Japan Bilateral Symposium at India, where Indian and Japanese professors, Indian students studying at NUT, and Japanese students having studied in India gave presentations on what they have achieved under Inter-University Exchange Project. We could widely share their achievement with other universities, companies and organizations concerning India.

■ Notices

- 4th year student from NUT had a research project at IIITD&M during his Jitsumu-kunren overseas internship, and his research project was published on an academic journal(Optics and Laser Technology) as a peer-reviewed paper with his name as the first author. Other achievements through the joint-research were also reported at the International conferences etc.
- 4 Indian students had internships at companies in Japan, and 10 students acquired credits at NUT and brought the credits to their home universities. As the number of companies who accept intern students was increased, it became easier for students to find a company where they can learn about fields related to their own researches, and it widened the learning effectiveness through the internships. We are in the process of the final coordination with other companies for future internships so that more students in more majors will be able to go on the internships.