

FY2017 Inter-University Exchange Project, Hiroshima University

Support for the Formation of Collaborative Programs with Russian and Indian universities

【Name of project】(Adopted year: FY2017, (Type A (India)))

International Linkage Degree Program for Developing Innovators Transforming Advanced Technology to Social Goals

【Summary of Project】

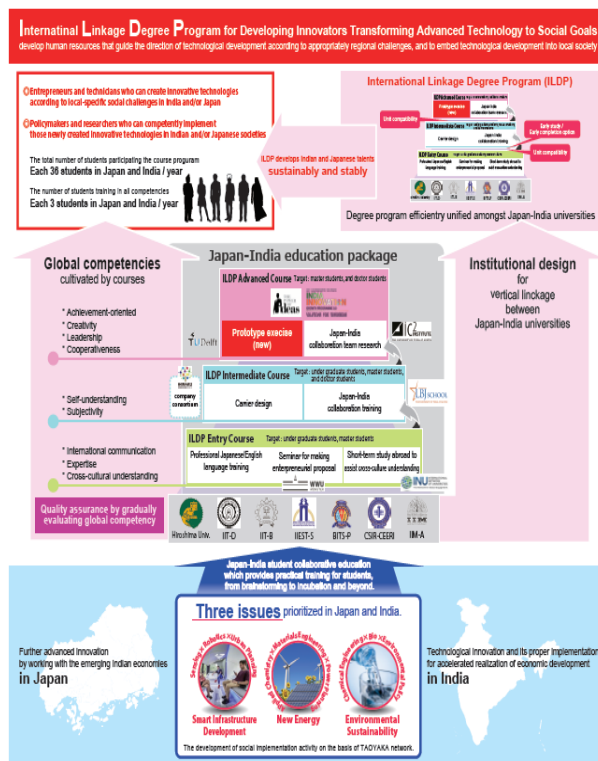
Through the scheme of "Japan-India Education Package", we develop innovators who can transform advanced technologies for the use of Japanese and Indian societies in three interdisciplinary fields: "Smart Infrastructure Development", "New Energy", and "Environmental Sustainability". To expand the educational exchange into a degree program, we will establish the International Linkage Degree Program (ILDP) in collaboration between Hiroshima University (HU) and six partner universities in India in order to develop leaders who can guide the direction of technological development according to regional challenges, and thus embed such technologies appropriately into local society.

【Summary of Exchange program】

The "Japan-India Education Package" scheme strengthens global competencies in a stepwise fashion. Eventually, we aim to establish an innovative ILDP between HU and its partner universities in India.

The Japan-India Education Package is composed of the following three courses:

- **ILDP Entry Course:** By targeting undergraduate and master program students, this course aims to allow students to acquire global competencies for international communication, expertise, and cross-cultural understanding through the following three educational practices: "specialized foreign-language training", "exercises in making entrepreneurial business proposals", and "short-term study abroad to assist in cross-cultural understanding". For quality assurance, the BEVI Test, an assessment tool used to measure learning outcomes, will be conducted before and after the study abroad period.
- **ILDP Intermediate Course:** This course is for undergraduate, master, and doctoral program students. Through the two initiatives of "Career design" and "Japan-India collaborative training", students will develop self-understanding and independence. Learning outcomes will be evaluated by practitioners at the host institutions.
- **ILDP Advanced Course:** This course is for master and doctoral program students. Students will acquire achievement-oriented competency and skills in creativity, leadership, and cooperativeness through "Prototype exercises" and "Japan-India collaborative team research". Learning outcomes will be evaluated based on two types of practical entrepreneurship contest.



【Global Human Resource project】

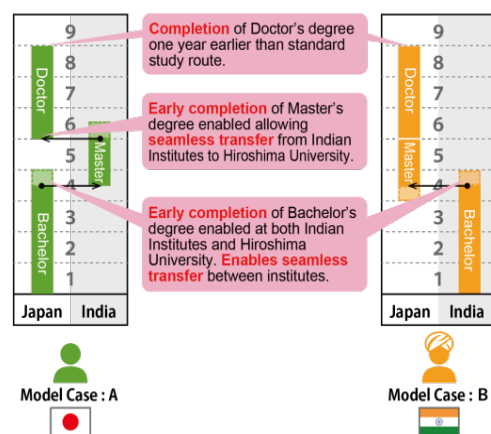
To train future leaders who can contribute to solving social problems in Japan and India through coordination with specialists in different fields. This project will develop

- Entrepreneurs and engineers who can create innovative technologies according to regional-specific social challenges in India and/or Japan.
- Policymakers and researchers who can competently implement those newly created technologies in Indian and/or Japanese societies.

【Features of the project】

1. Japan-India Education Package scheme to strengthen the global competencies of students by providing an education package consisting of various exchange programs, adding to and improving on existing programs at Hiroshima University in a stepwise fashion.
2. Proposal-based support system, which selects and supports excellent proposals made by Japanese and Indian students throughout the program.
3. Japan-India collaborative team training, which provides practical training in entrepreneurialism, from brainstorming to incubation.
4. Producing entrepreneurs, engineers, and policy-makers who can contribute to the development of the three interdisciplinary research fields of i) Smart Infrastructure Development, ii) New Energy, and iii) Environmental Sustainability.
5. Linkage-type degree program that, through the adjustment and utilization of the different educational systems that exist in Japanese and Indian universities such as unit compatibility, early study, and early completion options, does not require an extension to the standard study route. (See diagram, right)

International Linkage Degree Program (ILDP)



Degree program efficiently unified amongst Japan-India universities

【Projected number of participants】

	2017	2018	2019	2020	2021
Outbound	18	36	36	36	36
Inbound	18	36	36	36	36

1. FY2017 Progress

【Hiroshima University】

【Name of project】(Adopted year: FY2017, (Type A ,India)

International Linkage Degree Program for Developing Innovators Transforming Advanced Technology to Social Goals

■ Exchange Programs



Lecturer



Pilani Campus



Akinada Bridge



Workshop

〈ILDP-START+ Program in Bits Pilani (Mar. 7-20, 2018)〉

〈Inbound :ILDP-Idea Mining Workshop in HU (Dec. 12-18, 2017)〉

Student-Mobility

○ Outbound

In FY 2017, 27 students including 23 Japanese students at Hiroshima University are dispatched through the 3 of 7 programs in “Japan-India Education Package” scheme; ILDP-START+ (ILDP Entry Course), ILDP-Global Internship and ILDP-International On-Site Training (Intermediate Course).

○ Inbound

In FY 2017, Hiroshima University accepted 17 international students from 6 Indian universities and institution through the 5 of 7 programs in “Japan-India Education Package” scheme; ILDP-START+ and ILDP-Idea Mining Workshop (ILDP Entry Course), ILDP-Global Internship and ILDP-International On-Site Training (ILDP Intermediate Course) and ILDP-Prototyping Workshop (ILDP Advanced Course).

	2017	
	Plan	Results
Outbound	18	27
Inbound	18	17

■ Forming the University Network with Quality Assurance

- Direct discussion with responsible for international education and confirmation of facilities to launch new student exchange program by visiting Hiroshima University faculties and staff to 6 Indian universities and institutions.
- Sharing goals and policies of the project and building relationship among participating universities and institutions through the 1st International Linkage Degree Program (ILDP) Committee Meeting in Hiroshima on 17 January, 2018.
- Substantial discussions for sharing problems to solve launching student exchange program, such as difference of academic calendar and course evaluation system by holding the 1st ILDP Practical Meeting at Hiroshima University in January, 2018.



〈1st ILDP Committee Meeting(January 17, 2018)〉

■ Promotion of Student-Mobility Environment

- Establishment of "ILDP Steering Committee", organization in Hiroshima University responsible for promoting, planning, implementation and management of the project.
- Establishment of "ILDP office" which is exclusively in charge of planning the student exchange program and academic and living supports for students who participate in the student exchange program.
- Offering Courses and syllabus for the student exchange program by common organization at Hiroshima University and expressing the position of each student exchange program throughout the project.
- Offering the opportunities of visiting Japanese companies in India and lectures by Japanese staff in the dispatch program by requesting cooperation.

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

- Strong publications to the outside of universities by holding the 1st ILDP Committee Meeting with governmental and local governmental officials of Japan and India including the Indian Ambassador in Japan as well as representatives of 6 Indian Universities and Institutions and Hiroshima University.
- Self evaluation, checking the student exchange program in FY 2017 and concrete discussions to achieve final goal of the project, construction of the International Linkage Degree Program at the 1st External Evaluation Committee with authorities of inside and outside of Hiroshima University.



〈1st External Evaluation Committee (March 2, 2018)〉

■ Good Practices

- Promotion of efficiency of the period from the planning to substantial implementation of the student exchange program with Indian universities and institutions by using the existing student exchange scheme in Hiroshima University.

2. FY2018 Progress

【Hiroshima University】

【Name of project】(Adopted year: FY2017, (Type A, Country India)
International Linkage Degree Program for Developing Innovators Transforming Advanced Technology to Social Goals

■ Exchange Programs



◁ ILDP-START+ (Inbound) (June, 2018) ▷

◁ ILDP-Idea Mining Workshop (Outbound) (March, 2019) ▷

■ Exchange Students

○ Outbound

In FY 2018, 43 students including 35 Japanese students at Hiroshima University were dispatched to 5 Indian universities and institutions and completed under the 5 out of 7 programs in “Japan-India Educational Package” scheme; ILDP-START+ and ILDP Idea Mining Workshop (ILDP Entry Course), ILDP-Global Internship and ILDP-International On-Site Training (ILDP Intermediate Course) and ILDP-Prototype Workshop (ILDP Advanced Course).

	2018	
	Plan	Results
Outbound	36	43
Inbound	36	49

○ Inbound

In FY 2018, Hiroshima University accepted 49 international students from Indian universities and institutions and completed under the 5 out of 7 programs in “Japan-India Educational Package” scheme; ILDP-START+ and ILDP-Study Abroad Program (ILDP Entry Course), ILDP-Global Internship and ILDP-International On-Site Training (ILDP Intermediate Course) and ILDP-International Team Project and ILDP-Prototype Workshop (ILDP Advanced Course).

■ Forming the University Network with Quality Assurance

- Implemented student exchange programs developed through thorough discussion and facility inspection by HU and 6 Indian universities and Institutions, and repeatedly reviewed the programs to be improved.
- Identified needs and issues raised at individual discussion with each university and modified the programs by incorporating their requests as well as enhanced student support system.
- Concluded MOU pertaining to jointly supervising Ph.D. students with Indian Institute of Technology, Bombay (January, 2019) and Birla Institute of Technology and Science, Pilani (BITS-P) (March, 2019) and launched further efforts on establishing International Linkage Degree Program.



◁ MOU for Ph.D. Joint Supervision (March 2019) ▷

■ Promotion of Student-Mobility Environment

- Designed student exchange program by specially assigned academic / administrative staff and provided students with academic /living supports.
- Solicited cooperation to the program from Japanese companies in India and visited them to receive lectures from the Japanese practitioners working in India.

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

- Co-hosting International Conference with Indian Institute of Engineering Science and Technology, Shibpur (IEST) from March 6 to 8.
- Co-hosting joint seminar for teaching materials which can be used at both Hiroshima University and 6 Indian universities and institutions based on mutual educational needs.
- Self evaluation, checking the student exchange program in FY 2018 and concrete discussions to achieve final goal on the project, construction of the International Linkage Degree Program for Developing Innovators Transforming Advanced Technology to Social Goals at the 2nd External Evaluation Committee with authorities of inside and outside of Hiroshima University.

■ Good Practices

- Promotion of efficiency from the planning phase for robust substantial implementation of the student exchange program with Indian universities and institutions by utilizing the existing student exchange scheme in Hiroshima University.

3. FY2019 Progress

【Hiroshima University】

【Name of project】(Adopted year: FY2017, (Type A, Country India)

International Linkage Degree Program for Developing Innovators Transforming Advanced Technology to Social Goals

Exchange Programs



Students Symposium

〈ILDP-International On-Site Training (Inbound) (August, 2019)〉



Hearing with Local Residents



Lego Serious Play (Ideation)

〈ILDP-Idea Mining Workshop (Inbound) (February, 2020)〉



Lecture

Exchange Students

Outbound

In FY 2019, 17 students including 13 Japanese students at Hiroshima University were dispatched to 5 Indian universities and institutions and completed under the 3 out of 7 programs in “Japan-India Educational Package” scheme; ILDP-Global Internship and ILDP-International On-Site Training (ILDP Intermediate Course) and ILDP International Team Project (ILDP Advanced Course).

*Due to the pandemic of COVID-19, ILDP-START+ (21 students) (ILDP Entry Course) was canceled.

Inbound

In FY 2019, Hiroshima University accepted 51 international students from 6 Indian universities and institutions and completed under the 6 out of 7 programs in “Japan-India Educational Package” scheme; ILDP-START+, ILDP-Idea Mining Workshop and ILDP-Study Abroad Program (ILDP Entry Course), ILDP-Global Internship and ILDP-International On-site Training (ILDP Intermediate Course) and ILDP-International Team Project (ILDP Advanced Course).

	2019	
	Plan	Results
Outbound	36	17
Inbound	36	51

Forming the University Network with Quality Assurance

- Implemented student exchange programs developed through thorough discussion and facility inspection by HU and the 6 Indian universities and Institutions, and repeatedly reviewed the programs to be improved.
- Identified needs and issues raised at the individual discussion with each university and modified the programs by incorporating their requests as well as enhanced student support systems.



〈Joint Seminar at IIT Bombay〉

Promotion of Student-Mobility Environment

- Designed student exchange program by specially assigned academic/administrative staff and provided students with academic /living supports.
- Solicited cooperation to the program from Japanese companies in India and visited them to receive lectures from the Japanese practitioners working in India.

Internationalization of the University, Information Disclosure and Publication of Outcome

- Co-hosting International Conference with Indian Institute of Engineering Science and Technology, Shibpur (IEST) from March 4 to 6, 2020.
- Co-hosting joint seminar for teaching materials that can be used at both Hiroshima University and 6 Indian universities and institutions based on mutual educational needs.
- Self-evaluation, checking the student exchange program in FY 2019 and concrete discussions to achieve the final goal on the project, construction of the International Linkage Degree Program for Developing Innovators Transforming Advanced Technology to Social Goals at the 3rd External Evaluation Committee with authorities of inside and outside of Hiroshima University.
- Planning Student Workshop aimed for sharing experiences and outcomes with academic/administrative staff tackle cooperative education with Indian Education Institutes.

Good Practices

- Promotion of efficiency from the planning phase for robust substantial implementation of the student exchange program with Indian universities and institutions by utilizing the existing student exchange scheme in Hiroshima University.

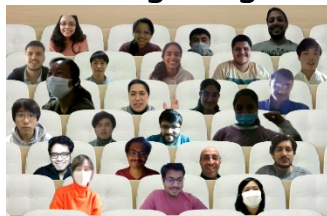
4. FY2020 Progress

【Hiroshima University】

【Name of project】(Adopted year: FY2017, (Type A, Country Russia or India)

International Linkage Degree Program for Developing Innovators Transforming Advanced Technology to Social Goals

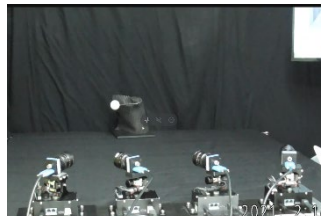
■ Exchange Programs



〈 START Program 〉
Dec. 15-23, 2020



〈 START Program: VR lab tours 〉
Dec. 15-23, 2020



〈 Joint Team Project 〉
Feb. 15 – Mar. 5, 2021



〈 Online Student Workshop 〉
Sep. 25, 2020

Student-Mobility

Four programs: ILDP STASR plus, Idea Mining Workshop, International On-site Training, and International Joint Team Project were implemented as online bidirectional programs. Two programs: Global Internship and PhD Joint Supervision were implemented online for both outbound and inbound.

	2020	
	Plan	Results
Outbound	36	23
Inbound	36	51

○ Outbound

Total 23 HU students were awarded academic credits and certificates of completion, with 19 students participated in 5 online bidirectional programs and 4 participated in the internship by online instruction.

○ Inbound

Total 51 students were awarded academic credits and certificates of completion, with 37 participating in 4 online bidirectional programs and 14 participating in Internship and Joint Supervision by online instruction.

■ Forming the University Network with Quality Assurance

[**Program as course subject**] Providing a syllabus by following the university regulation, and guaranteeing the quality of education through strict grade management by applying the university-wide standard GPA system.

[**Goal-oriented programs**] In each programs, the competencies that students should acquire are set as goals, and the students' own learning outcomes, efforts and changes are visualized.

[**Conclusion of agreements**] Concluded the memorandum agreement on the student exchange with each institutes, and clarified the project objects, role, and responsibilities.

■ Promotion of Student-Mobility Environment

[**University-wide operation**] By establishing the cross-departmental steering committee as a university-wide project, the agile management from the whole university viewpoint became possible. As the supporting organization, the administrative office enabled one-stop supporting service of the acceptances of the international student from India.

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

[**International student workshop**] Hosted an international student workshop along with 2 universities in Japan where the exchange programs with India are conducted and 4 of our/their partner institutions in India and shared the efforts of those universities. It enabled us to obtain knowledge on the execution of the student exchange programs and the future structure of the linkage program. The workshop was also an opportunity to publicize our efforts widely in Japan and India by opening it to the online public.

[**Teaching material development workshop**] Holding the workshop with exchange institutions led to the development of teaching materials that meet the needs of both Japan and India, acquirement of excellent students, and forming sustainable relationships with the institutions.

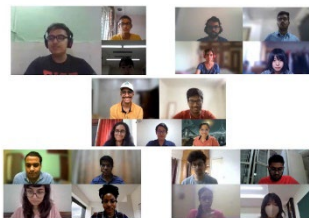
■ Good Practices

- The active dialogues at online seminars and workshops on social issues and research development in science and technologies in Japan and India led to the development of teaching materials that meets the needs of both countries.
- Holding an international student workshop and students presenting the study outcome among 3 universities in Japan and 4 universities in India enabled each university to share their outcomes and led to the advancement of the program.
- The project contributed to the development of international exchange and the internationalization of our university by promoting online academic exchange.
- The online bidirectional program provided students with project-based learning with a student-centric approach in a highly diverse environment.

5. FY2021 Progress

【Name of project】(Adopted year: FY2017)

Exchange Programs



〈 International On-site Training〉

〈Pitch contest〉

〈Award given at the Pitch contest〉

Student-Mobility

5 Programs (ILDIP STASR plus, Idea Mining Workshop, International On-site Training, International Joint Team Project and Prototype training) were implemented as online bidirectional programs. 2 programs (Global Internship and PhD Joint Supervision) were implemented online for both outgoing and inbound students.

○ Outbound

In total, 34 HU students were awarded academic credits and certificates of completion through the programs this fiscal year. 28 students participated in the 5 bidirectional exchange programs online, while 6 students joined the Global Internship with online supervision.

○ Inbound

In total, 40 students were awarded with academic credits and certificates of completion through the programs this fiscal year. 32 students participated in the 5 bidirectional exchange programs online, while 8 joined the Global Internship with online supervision.

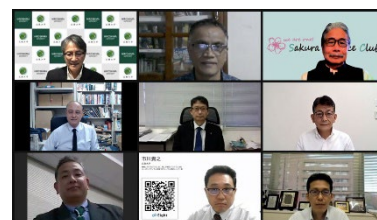
	2021	
	Plan	Results
Outbound	39	34
Inbound	39	40

Forming the University Network with Quality Assurance

[**Program as course subject**] Providing a syllabus by following the university regulation, and guaranteeing the quality of education through strict grade management by applying the university-wide standard GPA system.

[**Goal-oriented programs**] In each programs, the competencies that students should acquire are set as goals, and the students' own learning outcomes, efforts and changes are visualized.

[**Close collaboration with Partner Institutions**] Basing on the online collaboration and information sharing with 8 academic institutions in India, HU was able to recruit and acquire excellent international students as well as establish new bidirectional online educational programs.



〈HU-CSIR共同ワークショップ〉

Promotion of Student-Mobility Environment

[**University-wide operations**] Through the cross-departmental steering committee established for university-wide operations, agile management of the university as a whole was implemented successfully. In addition, through the administrative office specially appointed for carrying out support services, incoming international students from India were able to receive all necessary support services relating to enrollment procedures from a single office. Assistance in academic matters, and issues concerning life in Japan was provided by an assigned faculty member working full-time.

Internationalization of the university, Information disclosure and Publication of outcome

[**Joint workshop**] HU and the Council of Scientific & Industrial Research (CSIR) hosted a joint workshop with around 300 researchers participating from India. Information about Hiroshima University's efforts in India was able to be widely publicized through the workshops, thus enabling future collaborative options to vastly multiply. Making the workshops publicly available online further aided in strengthening these results.

[**Pitch contest**] A pitch contest was organized in order to expand industrial-academic collaboration initiatives. At the same time, the contest acted as a stage for students to present learning outcomes from the HU Prototype training program. With over 100 contestants, including Indian professionals from various industries, information about Hiroshima University's efforts was able to be widely circulated. The contest also greatly contributed to the substantiation of collaborative projects between industry organizations, governmental institutions, and the academia.

Good Practices

- Hosting the Joint Workshop enabled sharing of information on societal issues and needs in India – especially in regards to research and development for industrial players. The experience aids in further developing the teaching materials and contributes to HU research capabilities, which together connect to the expansion of future collaborative potential.
- Collaboration with Indian industrial organizations enabled the hosting of a pitch contest, through which information about the program, as well as students' learning results were widely publicized. Further, ties with the industrial organizations were strengthened and contributions were made toward the realization of cross-industry cooperation.
- Based on both the collaborative achievements and future plans, 2 Indian Universities (Indian Institutes of Technology, and CSIR Central Mechanical Engineering Research Institute) were added to HU's partner institutions, thus expanding students' options for international exchange in the future. These efforts can also be seen contributing to the continued internationalization of Hiroshima University.