

Report of the Japan-India Working Group
on the Cooperation Toward Establishment of a New IIT
October 22, 2008

1. Overview

In August 2007, then Prime Minister of Japan Shinzo Abe and Prime Minister of India Manmohan Singh agreed that “both sides will initiate a Working Group to study and explore possible collaboration in setting up a new Indian Institute of Technology (IIT).” This Working Group was instructed to “report progress of its study to the two leaders at their next Summit meeting.” The following is a report on the results of the discussion in the Working Group up to October 2008.

2. Activity of the Working Group

The 1st Working Group meeting was held in Tokyo on February 7, 2008, with the participation of representatives from government and academia of both countries. During the meeting, the participants exchanged views about possible academic areas of collaboration, location of the new IIT, and other specific modalities of cooperation. On May 1, 2008, the 2nd Working Group meeting was held in New Delhi, and participants deepened discussions on these matters.

Based on the result of the two Working Group meetings, an academic workshop was held at Tokyo University from June 18 to 19, 2008. Approximately 60 people participated from the government and academia of both countries. Some Japanese private companies also took part in the workshop. Participants were divided into five subcommittees and discussed possible modalities of cooperation regarding priority and focus areas, topics for joint research, necessary equipment, scale of human exchanges, and financial considerations.

Following up on the results of these Working Group meetings and workshop, the focal points of each collaboration areas have furthered their discussion.

3. Progress of the Working Group

Based on the above discussions, the Working Group is of the view that Japan and India can collaborate towards the establishment of a new IIT in the following manner.

(a) Objective

Establishing educational excellence: The new IIT to be set up under Japanese-Indian collaboration should be unique. The new IIT should be a symbol of joint efforts of both countries in creating a center of excellence that will attract the most talented students in India.

Mutually beneficial and complementary collaboration: Bilateral collaboration should

be based on close and broad exchange among relevant institutions of both countries and thus bring significant benefits to both countries. It is hoped that many students of the new IIT will choose Japan as the destination for their overseas education or job placement. Furthermore, while taking Indian needs into account, Japan and India should pursue collaboration in areas including research that both sides consider most productive and beneficial.

(b) Selection of the site

The Working Group identified Hyderabad, Andhra Pradesh, as the site for Japanese-Indian cooperation on a new IIT. Hyderabad is well connected domestically and internationally, and one of the fastest growing cities in India where numerous R&D centers, universities and multi-national companies are situated. IIT Hyderabad opened its doors in August 2008 to 120 undergraduate students at the temporary campus. The institute will continue to expand its programs and move into the official campus in 2010.

(c) Duration

Japanese-Indian collaboration on the new IIT should be implemented with a long-term perspective in mind, since the collaboration will be based on human exchange and joint work, both of which will require a certain amount of time in establishing the collaboration and in producing results. Thus, collaboration should be viewed possibly as a ten-year program.

(d) Areas of cooperation

Academic experts from both countries identified the following five areas where India's needs match Japan's strengths. More areas can be added later by mutual consent. In each of these fields, both sides nominated group leaders who are to further develop the modalities of cooperation that would be beneficial for both sides.

- (1) Environment & Energy
- (2) Digital Communication
- (3) Design & Manufacturing
- (4) Nano-technology & Nano-science
- (5) Civil Engineering

(e) Focus of cooperation

The IIT wishes to collaborate particularly at the post-graduate education level. In order to establish IIT Hyderabad as a unique institution for post-graduate education, intellectual cooperation from Japanese universities and industries should be sought for capacity building at the post-graduate level and for research especially in the five academic areas mentioned above, especially through joint research and exchange of faculty members and researchers. It would also be useful to introduce courses regarding Japanese-style business management, which is one strength of Japanese industry.

It is also important to enhance Japanese language education for IIT Hyderabad

students in order to make it easier for them to continue their studies or to find jobs in Japan. In the same light, introduction of Japanese culture and systems can also be useful.

(f) Means of cooperation

Japanese-Indian collaboration on IIT Hyderabad should be comprehensive and address in particular the following subjects:

Dispatch of faculty members: Japanese faculty members could be dispatched to IIT Hyderabad to assist in the development of post-graduate level curricula, training of IIT faculty, and implementation of international joint research. In each academic area, it is desirable that (two to five) faculty members from Japanese universities visit IIT Hyderabad every year from 2009 for either short or mid-term stints. Specific details will be further discussed between academic experts.

Dispatch of lecturers: Lecturers from Japanese industries could visit IIT Hyderabad to give specified courses in areas of mutual interest. In this regard, Hitachi has already started in October 2008 a series of lectures regarding Japanese advanced technology.

Exchange of IIT faculty members and students: The Japanese side welcomes faculty members and students (undergraduate and post-graduate) from IIT Hyderabad who wish to continue their research in Japanese universities or participate in internships at Japanese companies. Japanese universities and industries should actively work to receive IIT faculty members and students who wish to gain experience in Japan.

Facilities and equipment: Adequate facilities and equipment are indispensable to implement effective and productive joint research. Academic experts of both countries have discussed desirable facilities and equipment for the collaboration. They request relevant authorities of the respective governments to consider utilizing the existing Japanese ODA schemes toward providing equipment such as technical instructional and research equipment. Various schemes that support joint research, some of which may require matching funds, could be utilized for specified equipment and others. The development of a high-speed network infrastructure will enable long-distance education and thus facilitate cooperation. Necessary details will need to be further discussed among related parties of both sides including academic experts.

Japanese language education: IIT Hyderabad could set up a Japanese language course for students and may also consider the possibility of creating facilities for learning Japanese language. Japan encourages IIT Hyderabad's efforts to improve Japanese language education and considers possible assistance. Details of this cooperation will be discussed between relevant parties from both sides.

Members of the Working Group

<Japanese side>

Ministry of Foreign Affairs
Ministry of Education, Culture, Sports, Science and Technology
Keio University
Kyoto University
Kyushu University
Nagoya University
Osaka University
Ritsumeikan University
Tohoku University
The University of Tokyo
Waseda University
Hitachi, Ltd.
Mizuho Corporate Bank, Ltd.
Nissan Motor Co., Ltd.
Sanyo Electric Co., Ltd.
Suzuki Motor Corporation
Toyota Motor Corporation
Sony Corporation

<Indian side>

Ministry of Human Resource Development
Ministry of External Affairs
Ministry of Finance
Indian Institute of Technology Kanpur
Indian Institute of Technology Madras
Indian Institute of Information Technology Jabalpur

Member Universities / Companies in Each Academic Field

Area	University	Industry
Environment & Energy	Osaka University Kyoto University University of Tokyo Tohoku University Ritsumeikan University	Nissan Motor Sanyo Electric
Digital Communication	Keio University University of Tokyo	
Design & Manufacturing	Waseda University Kyushu University	Suzuki Motor
Nano-technology & Nano-Science	University of Tokyo Tohoku University Kyoto University Osaka University	
Civil Engineering	University of Tokyo Nagoya University	

Others: Hitachi , Mizuho Corporate Bank, Toyota Motor, Sony

List of Group Leaders

1. Environment & Energy

Dr. Toshifumi Ise, Professor, Osaka University

Dr. U.V. Varadaraju, Professor, IIT Madras & Member of IIT Hyderabad Task Force

2. Digital Communications

Dr. Jun Murai, Vice President, Keio University

Dr. R.David Koilpillai, Professor, IIT Madras & Co-Chair of IIT Hyderabad Task Force

3. Design & Manufacturing

Dr. Takahiro Ono, Professor, Waseda University

Dr. M. Govardhan, Professor, IIT Madras & Member of IIT Hyderabad Task Force

4. Nano-technology & Nano-science

Dr. Yasuhiko Arakawa, Professor, University of Tokyo

Dr. V. Chandrasekhar, Professor, IIT Kanpur & Member of IIT Hyderabad Task Force

5. Civil Engineering

Dr. Yozo Fujino, Professor, University of Tokyo

Dr. C.V.R. Murty, Professor, IIT Madras & Co-Chair of IIT Hyderabad Task Force