

This is with reference to the information required regarding fellowship offer by the Dow Chemical Company or its subsidiary to the Chemical Engineering Department.

1. Has IIT or any department within it received any offer of grant or financial assistance or expression of interest for setting up a fellowship / scholarship from the Dow Chemical Company or any of its subsidiaries? Please provide details such as copy of offer letter, grant amount, circulars on the same issued by IIT or any department within it, copy of the meeting minutes where the Dow offer was discussed; copy of decision taken; names, designations and contact details (phone, email) of people involved in decision-making.

The Office of Dean R & D is involved in promoting Research & Development in IIT Bombay. Research projects are undertaken as Sponsored projects and Consultancy projects from various agencies such as Government agencies, Public Sector Undertaking, Companies both Indian and Overseas, Overseas Universities and various international agencies.

Towards this end the Office of Dean R & D facilitates the process by interfacing between the interested faculty and the funding agencies.

The Office of Dean R & D is not aware of any expression of interest for setting up a fellowship / scholarship from Dow Chemical Company or any of its subsidiaries.

2. If no decision has been taken, kindly provide us information as to the process of decision-making, the people involved in the same and their contact detail, and the mechanism by which important and relevant information can be given to decision makers.

As mentioned earlier, we are involved in enabling R & D in IIT Bombay.

When a request is received from a company expressing interest in collaborative R & D projects, relevant information is sought (if such information is not provided by the company) to identify areas of research interest to enable us to identify the appropriate faculty, who might be interested.

IRCC has created a form "Initial Information Form" for visitors (see attached form).

If there is mutual interest expressed by the faculty and the company, a meeting is organized to interact and understand each other's areas of interest for collaboration.

In the due course of further interactions, once the faculty and the company identify project(s) of mutual interest, details for the execution of the projects are worked out and taken up under our standard terms and conditions or through a specific R & D agreement.

#### Interactions with Dow Chemical Company and its subsidiaries

In January 2006, a team from Dow Chemical visited IIT Bombay with an objective to get acquainted with the general capabilities available for R & D in India and more specifically in IIT Bombay and the models for collaborating with industry. This was a one time meeting. Another team visited in October 2006. No further meetings / correspondence have taken place

Recently in Feb 2007 Dow Corning has an exploratory meeting with a few IITB faculty to understand their strengths in specific technical areas on mutual interest. There has no further development.

INDIAN INSTITUTE OF TECHNOLOGY BOMBAY  
INDUSTRIAL RESEARCH AND CONSULTANCY CENTRE  
OFFICE OF DEAN R & D

A record of the Meeting of The Dow Chemical Company, USA and IIT Bombay held on January 4, 2006

It was a luncheon meeting held in the Mini-Dining Hall of the Guest House.

The objective of this meeting is for Dow to get acquainted with the general capabilities available for R & D in IIT Bombay and the models for collaborating with industry

The following attended the meeting

The visiting team members from Dow Chemical Company, USA and local office are

David Wentworth Frey	Corporate Finance Director, Corporate Treasury
Joe Asiala	Vice President of Manufacturing, Dow Automotive
Patrick Edward Gottschalk	Global Business Director, Solvents and Intermediates
Gary Lynn Hockstra	Business Manufacturing Director, Engineering Polymers
Theresa Guiton Kotancheck	R & D Technology Director
Molly P Zhang	Manufacturing Director
Ramakrishnan Subramanian	Director, Business Development

#### Faculty from IIT Bombay

Prof D. Ghosh, Dy. Director  
Prof. K C Khilar, Dean R & D  
Prof R. Malik, Department of Chemical Engineering  
Prof A Q Contractor, Head Department of Chemistry  
Prof. K K Rao, Head, School of Biosciences and Bioengineering  
Dr (Mrs). Krishna Lala, Technical Officer, IRCC, Dean R & D

#### Opening Remarks by Deputy Director, IIT Bombay

The Deputy Director welcomed the participants. In his brief remarks, Prof. Dipan Ghosh, Deputy Director, talked in general about the inception of IIT's in India when the focus was on providing technology which has now shifted towards Research and Development.

Prof. Ghosh talked about the administrative structure of IIT Bombay. He provided some statistics on student admission and the numbers of students graduating at various levels such as Bachelors, Masters and Doctoral.

#### Inputs by the Dean R & D

Prof. Khilar, Dean R & D spoke on the various possible modes of undertaking projects such as sponsored / consultancy. He provided some statistics on the expenditure and earning

R & D sponsored projects and consultancy projects. He briefly touched upon the IPR generated in IITB and the technology incubator.

Prof. Khilar talked about IRCC, its role in interfacing with funding agencies and Industry. He delineated the staff set up to undertake various administrative matters. He also talked on the issues pertaining to IPR management within IRCC.

#### **Inputs from Dow Chemical Company**

The visitors thanked IITB for providing the overview of IITB academic and R & D activities.

The main objective of the visit was to understand the Indian academic institutions and the visit to IITB's is a part of such a project.

#### **Areas of Interest expressed by the Dow Team**

1. Besides Chemistry and Chemical engineering, they expressed their interests in several other areas such as design, systems and controls group, nanotechnology, reliability engineering, energy systems to name a few. They showed special interest in the Industrial Design centre.
2. Dow group was keen on understanding the demography, economic and political situation conducive for their business operations in India. They were keen to understand appropriate location of their business with special reference to Automobile and Building Construction - single location or multi-location.
3. They were keen to know the academic set-up in such as faculty to student ratios, the faculty involvement with other universities - such as partnerships, benefits such as sabbatical etc.
4. They were keen to understand the number of graduates at Master's and Doctoral level each year in science subjects and their career placement.

#### **WAY AHEAD**

- The visitors were provided a copy of the Brochure of the Institute and IRCC updates and information on few departments.

INDIAN INSTITUTE OF TECHNOLOGY, BOMBAY  
IRCC, OFFICE OF THE DEAN R & D

DISCUSSION MEETING BETWEEN IIT BOMBAY AND DOW CHEMICAL  
COMPANY

Venue: Mini-Dining Hall, IITB Guest House

Date : Wednesday, January 4, 2006

Time: 12:30 PM

OBJECTIVE OF THE MEETING:

Dow is planning to put up a state of the art R & D Centre in India. As a part of the planning process, a senior level team is visiting to meet with the key stakeholders in the country to formulate a sound strategy. As a part of this effort, the team from Dow would like to meet with key research institutes and companies and discuss various issues, one of them being potential for R & D collaboration.

The objective of this meeting is for Dow to get acquainted with the general capabilities available for R & D in IIT Bombay and the models for collaborating with industry.

The visiting team is a cross functional one comprising of

David Wentworth Frey	Corporate Finance Director
Patrick Edward Gottschalk	Global Business Director
Wiljo E. Asiala, Jr.	Vice President, Manufacturing
Isidro Quiroga	
Gary Lynn Hockstra	Business Manufacturing Director
Theresa Guiton Kotanchek	Technology Director
Peifang Zhang (Molly)	Manufacturing Director
Ramki Subramanian	Director, Business Development

The team is being led by Dr. Theresa Kotanchek (Technology Director)

IIT Bombay

Prof. Kartic C. Khilar, Professor of Chemical Engineering and Dean R & D,  
Prof. A Q Contractor, Professor & Head, Department of Chemistry  
Prof. A K Suresh, Professor & Head, Department of Chemical engineering  
Prof. K.K. Rao, Professor and Head of School of Biosciences & Bioengineering  
Dr (Mrs) Krishna Lala, Technical Officer, IRCC, Office of Dean R & D

## The company

The Dow Chemical Company was incorporated in 1947. On February 6, 2001, the merger of Union Carbide Corporation ("Union Carbide") with a subsidiary of The Dow Chemical Company was completed, and Union Carbide became a wholly owned subsidiary of Dow.

The Company is engaged in the manufacture and sale of chemicals, plastic materials, agricultural and other specialized products and services.

Dow is a leading science and technology company that provides innovative chemical, plastic and agricultural products and services to many essential consumer markets.

In 2004, Dow had annual sales of approximately \$40 billion and employed approximately 43,000 people. The Company serves customers in 175 countries and a wide range of markets that are vital to human progress, including food, transportation, health and medicine, personal and home care, and building and construction, among others.

The Company has 165 manufacturing sites in 37 countries and supplies more than 3,300 products grouped within the various operating segments listed below:

Operating Segments	Businesses
Performance Plastics	Building and Construction Dow Automotive Engineering Plastics Epoxy Products and Intermediates Polyurethanes and Thermoset Systems Technology Licensing and Catalyst Wire and Cable Compounds
Performance Chemicals	Acrylics and Oxide Derivatives Dow Latex Specialty Chemicals Specialty Polymers
Agricultural Sciences	Dow AgroSciences
Plastics	Polyethylene Polypropylene Polystyrene
Chemicals	Core Chemicals Ethylene Oxide/Ethylene Glycol
Hydrocarbons and Energy	Hydrocarbons and Energy
Unallocated and Other	Dow Ventures

*Answer*  
15/10/2