

Report on Utilization of Funds Received From IIT Bombay Alumni for The Year 2007



**Office of the Dean, Resource Mobilization,
Indian Institute of Technology Bombay
Mumbai, India**

July 2008

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INTRODUCTION

By Prof. R.K. Shevgaonkar, Dean Resource Mobilization

Dear Alumnus/Alumna,

Greetings!

It is my pleasure to present to you this annual report on Utilization of Alumni Funds for the year 2007. However before that lets have a quick look at the notable events of the year.

The 45th Convocation of IIT Bombay was held on 10th August 2007. The Convocation address was given by the Chief Guest, Mr. Lakshmi N. Mittal, Preseident & CEO, Arcelor Mittal. The Award of Degree of Doctor of Science (Honoris Causa) was conferred on Prof. M.G.K. Menon for his outstanding research contributions.

IIT Bombay Golden Jubilee celebrations were launched on 5th September 2007, graced by the presence of the former President, Dr A P J Abdul Kalam. Numerous events and activities such as seminars, conferences and lectures by distinguished personalities are being conducted on the campus as part of these celebrations.

The Distinguished Lecture series started with Astronaut Sunita Williams addressing the young and old alike in the packed Convocation hall. She talked about both technical and personal experiences of her extra terrestrial 'holiday' as she called it, and enthralled the audience.

Golden Jubilee Alumni Day was celebrated on December 29, 2007. The Silver Jubilee Reunion of Class of '82 was celebrated in a grand fashion on December 28 & 29, 2007. In the formal Alumni Day function, IITB Director Prof. Misra presented Distiguated Service Awards. Representatives of class of 1980 and 1981 gave legacy project implementation updates. Donation of Rs. 25 lakhs was announced by the representatives of Class of 1981 to S.I.N.E. as Entrepreneurship Alumni fund and IIT Bombay Alumni Association announced launching of Benevolence Fund for the members of IITB family. Silver Jubilee batch of Class of 1982 announced donation of Rs. 4 crores to Prof. Misra towards their legacy

project 'Project Joining Bonus to Young Faculty'. IIT Bombay would use these funds to attract talented young scholars from around the globe to take up faculty positions at the Institute.

Another important event has been the Golden Jubilee Foundation Day celebrated on 10th March 2008. On this occasion, Mr. Anand Mahindra, Vice Chairman & Managing Director, Mahindra & Mahindra Ltd., and the Chief Guest for the occasion, presented the Distinguished Alumnus awards.

During the Golden Jubilee year, the Institute has launched various projects like Convention Centre, Students' Gymkhana Revamp, construction of Lecture Hall complex, new Hostels, etc. The Institute looks forward to your continued involvement and active support for achieving its mission - *'to be the fountainhead of new ideas and innovators in technology and science'*.

--- Prof. R.K. Shevgaonkar
{*Dean, Resource Mobilization*}

ENDOWMENT – EXCELLENCE IN TEACHING AWARDS

1. Introduction:

The 'Excellence in Teaching Award' was approved by the Senate in its 136th meeting held on 4th December 1996 with a provision for 8 awards every year. The 8 awards recommended were among the following lines:

Common core courses (B. tech. Program)	-	2
Departmental B. Tech. Programs	-	3
Post Graduate Programs	-	2
M. Sc. Programs	-	1

The award process has been fully streamlined and these awards have come to be highly valued by the Faculty. The procedure of selection of these awards is as follows:

- Questionnaire for student feedback for identification of the Faculty for Excellence in Teaching Awards is given to all passing out students
- Faculty involvement is minimal except as the Convener of Staff/ Student Committees for conducting the assessment
- Acquisition of the feedback form from the students and calculation of the scores
- Review by a committee consisting of the Dean - Academic Program, Dean - Faculty, two Heads of the Departments and two student representatives
- Feedback from the Alumni (if feasible)

2. Awards Ceremony

The Teachers' Day was celebrated on September 5, 2007. The Chief Guest on the occasion was Dr. APJ Abdul Kalam, former President of India. The Awards for 'Excellence in Teaching' and 'Technology Development Award' were presented at the function held at PC Saxena Auditorium. The Award consists of a cash award of Rs. 10001 each and a certificate. Students introduced their Professors and highlighted their achievements and most memorable moments in the Institution. The P.K. Patwardhan Technology Development Award was presented to Prof. Abhiram Ranade of Department of Computer Sciences and Engineering for developing an excellent website.

The Excellence in Teaching Awards were presented to the following Faculty members –

S.N	Name of Faculty	Name of Department
o.		
1.	Prof. K.V. Krishna Rao	Civil Engineering
2.	Prof. G.K. Srinivasan	Mathematics
3.	Prof. J. Vasi	Electrical Engineering
4.	Prof. R.K. Malik	Chemical Engineering
5.	Prof. J.K. Nayak	Energy Systems Engineering
6.	Prof. Abhiram Ranade	Computer Science and Engineering
7.	Prof. K. Sudhakar	Aerospace Engineering
8.	Prof. N.B. Ballal	Metallurgical Engineering & Materials Sciences

2. Funds received

Particulars	Year	Date of receipt	Nature of Fund	Amount US \$	Amount Rs.
Alumni IITBHF	1997	September 9, 1997	One time	1,500	52,376
Alumni IITBHF	1999	October 18, 1999	One time	1,500	64,860
Alumni IITBHF	2001	March 28, 2001	Endowment	20,000	9,28,472
Total				23,000	10,45,708

4. Utilization of Funds:

A. Previous Years

Academic year	Total Amount Available during the year	Amount paid	Balance Rs.
1997 -1998	52,376	30,006	22,370
1998 -1999	64,860	80,008	(15,148)
1999 -2000	0	80,008	(80,008)
2000 -2001	81,028	80,008	1,020
2001 -2002	97,490	60,006	37,484
2002 -2003	97,490	80,008	17,482
2003 -2004	70,458	60,006	10,452
2004 -2005	74,228	00	74,228
2005 -2006	74,228	1,20,012	(45,784)
Total		5,90,062	22,096

B. Year 2006-2007

a). Total Amount Available in year 2007

Balance at end of year 2006	= Rs. 22096
Interest earned on all Endowments in 2007	= Rs. 74228
Total	= Rs. 96324

b). Total Expenditure incurred during the year 2007 = Rs. 80008

Balance = Rs. 16316

5. Remarks

IIT Bombay deeply appreciates the efforts of IITBHF for creating an Endowment Fund to support the “Excellence in Teaching Awards” at the Institute. This important initiative will go a long way in promoting and sustaining “Excellence in Teaching” in IIT Bombay.

ENDOWMENT – LIBRARY JOURNALS

1. Introduction

The Central Library, IIT Bombay is one amongst the six major technological libraries in the country in the area of Science, Engineering and Technology. It has completed 50 years and has built a large collection of books, journals and CDs. It also has a rich collection of resources in electronic media available locally on the Institute Intranet and accessible on the Web. It caters to the needs of large groups of users including more than 5000 students including 1000 research scholars, 400 Faculty and a large number of supporting staff. It has computerized all its house keeping activities using a software developed in – house that is being maintained and updated regularly. It uses state – of – the – art technology in its functioning and services.

IIT has received substantial contributions from Alumni through IIT Bombay Heritage Fund towards ‘Endowment for Library Journals’. This augmentation has not only eased the ever worsening situation vis – a – vis Library funding due to an unfavorable exchange rate and growing costs of Journal subscriptions, but has also given strong impetus to new areas of research, thus enriching the research output of IIT Bombay Faculty and research scholars. The list of journals subscribed using this Endowment is appended.

2. Financial Report

A. Funds received through IITBHF

Particulars	Year	Date of receipt	Amount US \$	Amount Rs.
Alumni IITBHF	1999	7th June, 1999	28,000	12,02,880
Alumni IITBHF	2000	26th April, 2000	25,000	10,88,500
Alumni IITBHF	2001	5th February, 2001	50,000	23,15,195
Alumni IITBHF	2004	28th May, 2004	25,000	11,40,500
Parag Saxena	2001			1,42,00,000
Bala Sagrithaya (for Sci finder)	2002	17th Sept., 2002	150,000	72,13,467
Bala Sagrithaya	2004	28th May, 2004	100,000	45,62,000

Arvind Ghanekar (for naming reading lounge)	2003	23rd July, 2003	200,000	91,82,000
Total			578,000	4,09,04,542

B. Utilization of funds

For the year 2007-08, the Institute Library Committee continues to subscribe journals. The list of journals along with their subscription amount is given below –

S.No.	Name of the Journal	Subscription Amount (Rs.)
1.	Biometrics	18944.31
2.	Canadian Geotechnical Journal	14619.57
3.	Chemical Engineering	7091.98
4.	Corrosion Science	146990.20
5.	Engineering Failure Analysis	32488.40
6.	Interfaces	14817.88
7.	International Journal of Transport Phenomena	21275.94
8.	Journal of Geology	7805.14
9.	Journal of Process Control	53209.66
10.	Journal of Sandwich Structures and Materials	57324.99
11.	Journal of the Electrochemical Society	44651.74
12.	Nuclear Technology	69255.76
13.	Process Biochemistry	67472.86
14.	Quarterly Journal of Mechanics & Applied Mathematics	29277.57
15.	CA on CD	598324.00
16.	JSTOR Full Collection – Online	81869.00
17.	.Project MUSE Online	238500.00
18.	Science On-Line	207108.00
	Total	1711027.00

a). Total Amount Available in year 2007

Balance in year 2006	= Rs. 4454172
Interest earned on all Endowments in 2007	= Rs. 2537803
Total	= Rs. 6991975

b). Total Expenditure incurred during the year 2007 = Rs. 1711027

Balance = Rs. 5280948

Remarks:

The role played by IITBHF through these endowments to enhance the research infrastructure has been very significant. IIT Bombay deeply appreciates the generous contributions made by the Alumni in USA.

IIT BOMBAY HERITAGE FUND NAMED SCHOLARSHIPS

In the year 2007-08, IITBHF had transferred funds for 13 new endowed scholarships for BTech/ Dual Degree students of IIT Bombay, raising the total number to 106 Endowed Scholarships. The details of the funds received through IITBHF for this purpose and the scholarships awarded are given in the following sections.

1. Financial Report -- Funds Received through IITBHF

S.No.	Particulars	Date of receipt	Amount US \$	Amount (Rs.)
1	6 Named Scholarships	8th June 1999	24,000	10,31,040
2	10 Named Scholarships	26th April 2000	40,000	17,41,600
3	10 Named Scholarships	2nd Dec 2000	46,700	21,76,834
4	9 Named Scholarships	2nd Dec. 2000	36,300	16,92,057
5	8 Named Scholarships	5th Feb 2001	32,000	14,81,725
6	1 Named Scholarship	8th March 2002	4,000	1,94,640
8	1 Named Scholarship	17th Sept. 2002	4,000	1,92,200
9	5 Named Scholarships	14th Nov. 2002	20,000	9,57,976
10	9 Named Scholarships	13th March 2003	36,000	17,02,080
11	5 Named Scholarships	23rd July 2003	20,000	9,18,200
12	6 Named Scholarships	1 st July 2004	28,000	12,77,360
13	Additional amount from Kishor Kulkarni	1 st July 2004	2,000	91,240
14	Additional amount from Deepak Kamath	1 st July 2004	4,000	1,82,480
15	2 Named Scholarships Abraham Thomas	21 st Jan. 2004	8,000	3,60,560
16	5 IITBHF Scholarships	9th March 2005	25,000	10,86,500
17	Rajendra Agarwal	9th March 2005	4,000	1,73,840
18	Additional amount from Kishor Kulkarni	9th March 2005	2,000	86,920
19	13 Named Scholarships	4th January 2006	65,000	30,08,530
20	5 Names Scholarships	20 th March 2007	25,000	10,67,764
21	6 Named Scholarships	9 th July 2007	30,000	12,08,058
22	1 PG and 1 UG Scholarship	25 th Sept. 2007	15,000	5,90,772
	Total		471,000	2,12,22,376

2. Award of IITBHF Named Scholarships for year 2007-08

The Institute Scholarship Committee has awarded these scholarships to students from July 2007 to April 2008 (Academic year 2007-08) at the rate of Rs. 1000 per month per scholarship for ten months based on the academic performance in terms of CPI. It may be noted that Dr. Kishor M. Kulkarni Scholarship and Prof. Mohan M. Kulkarni Scholarship are awarded at the rate of Rs. 1500/- per month for ten months. Also, the Deepak Kamat Scholarship for first year B.Tech. students is awarded at the rate of Rs. 1500/- per month.

List showing the names of the II year B.Tech./ DD students, III year BTech./ DD students and IV year

BTech/ DD students recommended for IIT Bombay Heritage Fund Scholarships for the period from July 2007 to April 2008

S.No.	Roll No.	Name of the student	Name of the Scholarship	Name of the Donor
1	06d11029	Deepak Vadera	Jagjivan Ujamshi Talsania Schp	Abhay Talsania
2	06002004	Agyeya Sharma	Vasant Himatlal Talsania Schp	Abhay Talsania
3	06002034	Mayank Goyal	Indira Manudhane Scholarship	Avi Nash Mandhane
4	06010042	L S V Tapovan	Vidyadhar and Radhika Kulkarni Scholarship	Vidyadhar Kulkarni
5	06d02016	Ms. Neeta Dixit	Dina Nath & Gayatri Nath Schp	Samir & Vinaya Kapoor
6	06011006	Patil Niranjan	Mrs Meenakshi Vishwanathan Schp	Vishwanathan Bhalchandra
7	06d07033	Ms. Sai Priya Mahajan	Dr P Ramadevi Menon Memorial Schp.	Vinod Menon
8	06d07039	Shobhraj	Mr. Badruddin Sonawalla Scholarship	Noorali Sonawalla
9	06d11007	Sangle Abhijit	David J. Dunn Scholarship	Dev Purkayastha
10	06d07023	Padmawar Aditya Abhay	Shri C.K. Apte Scholarship	Ravi Apte
11	06007017	Sanket Kabra	Dr. Vijaya Apte Memorial Scholarship	Ravi Apte
12	06010034	Rishabh Kumar	T. R.S. Anand and Bhanumati Anand Scholarship	Pradeep Anand
13	06005018	Aditya Somani	Mr and Mrs Ranganathan Scholarship	Giridhar Iyengar
14	06005012	Anirudh Shekhawat	Jayant Sathe Scholarship	Jayant Sathe
15	06005020	Saransh Gupta	Mr Balkrishna K. Mundhe Schp.	Rajiv Mundhe
16	06005014	Prateek Poddar	Sandra Lee Purkayastha Scholarship	Dev Purkayastha
17	06d10013	Kawle Ameya	Anonymous Schp.	IITBHF(Subodh Ghonge
18	06d11004	Kshitiz Saxena	-do-	IITBHF(Subodh Ghonge
19	06d10040	Arvind Krishna	IIT Alumni@Microsoft Scholarship	
20	06026010	Tanuj Saxena	-do-	
21	06005013	Shashank	-do-	
22	06010016	K P Ashwin Kumar	IIT Bombay Heritage Fund Schp.	
23	06007006	Tikekar Mehul Deepak	IIT Bombay Heritage Fund Schp.	

S.No.	Roll No.	Name of the student	Name of the Scholarship	Name of the Donor
24	05002058	Sheshlok Samal	Burjor S. Dadyburjor Scholarship	Dady Dadyburjor
25	05007020	Athawle Viraj	Samir Shah - Prakash Peres Memorial Scholarship	
26	05d10019	Gauri D Joshi	Mr. Shantilal H. Goradia Scholarship	Tarak Goradia
27	05026016	Ashish Goyal	Abraham Thomas Schp.	Abraham Thomas
28	05001007	Khadilkar Harshad	IIT Bombay Heritage Fund Schp.	
29	05005024	Pranav Kashyap	IIT Bombay Heritage Fund Schp.	
30	05007008	Aditi Goyal	Mr. S.S. Shiralkar Scholarship	Bharat Shiralkar
31	05004011	Ms Vidushi Jain	Kanitkar Scholarship	Jayant Kanitkar
32	05011009	Jitendra Singh Mavalia	Rajesh Radhakrishnan Scholarship	Rajesh Radhakrishna
33	05010010	Tarun Gupta	Vidyadhar and Radhika Kulkarni Scholarship	Vidyadhar Kulkarni
34	05026006	Mihir R Khadilkar	Lata Vijaykar Schp	Sandeep Vijayakar
35	05002018	Dhruv Tiwari	Anisbert & Kumarie Sequeria Schp	Samir & Vinaya Kapoor
36	05007027	Ranjan Panda	Prof M V Hariharan Schp	Deepak Sabnis
37	05d26003	Rohit Garg	Mrs. Minaz Sonawalla Scholarship	Noorali Sonawalla
38	05d10025	Ashwin Zade	Usha Purkayastha Scholarship	Dev Purkayastha
39	05d10038	Anish Aryan	Nagesh C. Chaudhari Scholarship	Dev Purkayastha
40	05010003	Apoorv Kalyankar	N S Rajaraman Schp	Rajesh Rajaraman
41	05010044	B Sai Sunil	Mr S. J. and Mrs S.S. Kulkarni Scholarship	Abhay Kulkarni
42	05010040	Saurabh Harsh	Gajendra Chandra Malakar Scholarship	Dev Purkayastha
43	05001010	Abhishek	Late Shri Gopaldas D Dattani Schp.	Private Scholarship
44	05010006	Shashank Nawathe	IIT Alumni@Microsoft Scholarship	
45	04d07016	Suyog Gupta	George Tharakan Scholarship	George Tharakan
46	04d07022	Abhishek Patil	Mrs. Ila Chandrakant Scholarship	Sunil Shah
47	04d10003	Siddhartha Chadha	Dr. Kishor M. Kulkarni Scholarship*	Kishor Kulkarni
48	04001009	Rahul Goel	Prof. Mohan M. Kulkarni Scholarship*	Kishor Kulkarni

S.No.	Roll No.	Name of the student	Name of the Scholarship	Name of the Donor
49	04d07020	Hitendra M Rohra	Prof. K. Shankar Scholarship	Deepak Sabnis
50	05004015	Ankit Gupta	Abbas Bhatia/ John A. Martin Jr. Scholarship	Hussain Bhatia
51	04004027	Pushkaraj R Sherkar	Prabhakar D. Mahajan scholarship	Milind Mahajan
52	06d04004	Valentine Victor Fargose	-do-	Milind Mahajan
53	04d02019	Abhinav Arora	Soonu Daduburjor Schp	Dady Dadyburjor
54	04d04007	Prashant Khandelwal	Kanitkar Scholarship	Jayant Kanitkar
55	05d11016	Siddharth Ashith Rao	Madho & Radha Agarwal Schp	Dwarika Agarwal
56	04007004	Abhijit Gupta	Suresh & Varsha Nihalani Schp	Suresh Nihalani
57	04007005	Chirag Singhla	Suresh & Varsha Nihalani Schp	Suresh Nihalani
58	04011025	Pulkit Jain	Himangshushekhar Purkayastha Scholarship	Dev Purkayastha
59	04d10002	Pravar Joshi	Mr. Kasamali Virani Scholarship	Noorali Sonawalla
60	04d07006	Saurabh Shintre	Bijoya Chaudhari Scholarship	Dev Purkayastha
61	04010034	Deep Gupta	Lionel J D'luna Scholarship	Lionel D'luna
62	04d02001	Anshul Gupta	Bibha Nandi Scholarship	Dev Purkayastha
63	04002058	Nitin Verma	Dwarka Nath Shuklo Baidya Scholarship	Dev Purkayastha
64	04002026	Prabhu Arun Laxman	IIT Bombay Heritage Fund Schp.	IITBHF
65	04005024	Prasang Upadhyay	Mr Roop Kumar & Mrs Suraj Devi Agarwal Schp.	Rajendra Agarwal
66	05d10004	Neha Khandelwal	Virendra Kumar Scholarship	Mr. Anil Kumar
67	04d07018	Sharayu Arun Moharir	Anonymous Schp.	IITBHF(Subodh Ghonge)
68	04026016	Vamasi Pritham Pingali	Anonymous Schp.	IITBHF(Subodh Ghonge)
69	04d07039	Nannuru Santosh	IIT Bombay Heritage Fund Schp.	
70	07528008	Sayan Ghosh	Radha Rani Agarwal Merit Scholarship	Mr. Brijesh Agarwal
71	05002042	Kshitiz Gupta	Abhay Himatlal Talsania Scholarship	Abhay Talsania
72	05011029	Abhishek Srivastava	Narendra Joshi Merit Schp.	Narendra Joshi
73	05d07037	Bamdev Mishra	IIT Alumni@Microsoft Scholarship	
74	05002019	Aniket Kasliwal	IIT Alumni@Microsoft	

S.No.	Roll No.	Name of the student	Name of the Scholarship	Name of the Donor
			Scholarship	
75	05002045	Abhinav Priyadarshi	IIT Alumni@Microsoft Scholarship	
76	05010031	Nitish Kumar	IIT Alumni@Microsoft Scholarship	
77	06026002	Sardesai Shardul	P K Seshambal Scholarship	Bala Subramanian

List showing the names of the I year B.Tech./ DD students recommended for IIT Bombay Heritage Fund Scholarships for the period from July 2007 to April 2008

S. No.	Roll No.	Name of the student	Name of the Scholarship	Name of the Donor
1	07007031	Subhasis Das	R N Limaye Schp.	Dilip Limaye
2	07002034	Aaray Singhal	Ruyintan & Monica Mehta Family Foun. Schp.	Ruyintan Mehta
3	07d07012	Abhinav Sinha	Prof G N Revankar Schp.	Deepak Sabnis
4	07002058	Varshney Ankur	Ruyintan & Monica Mehta Family Foun. Schp.	Ruyintan Mehta
5	07007030	Vivek Kumar Jha	Vijaya Patil Schp	Uday Patil
6	07010026	Anubhav Jain	Manohar & Sunita Kamat Schp.	Deepak Kamat
7	07010025	Ankur Tulsian	Dr G V Bakore Memorial Schp.	Ravi Apte
8	07011030	Amrit Raj	Shri Raman K Rao Scholarship	Raman Rao
9	07005028	Vivek Jhunjhunwala	Ms A J Majmudar Schp.	Raj Mashruwala
10	07d10039	Khushboo Agrawal	IITB Alumni Microsoft Schp.	
11	07001004	Himanshu Pandey	Manohar & Sunita Kamt Schp.	Deepak Kamat
12	07d07022	Abhinav Mittal	Dr Chandrakant Thanawala Schp.	Sukumar Thanawala
13	07007024	Mudit Jain	IITB Alumni Microsoft Schp.	
14	07d11011	Rungta Siddharth Vijay	C Vimla & M R K Menon Schp.	Rajesh Radhakrishna
15	07d07021	Aakash Shantaram Patil	IITB Alumni Microsoft Schp.	
16	07d07007	Arpit Agrawal	Ashish Prasad Nandi Majumdar Schp.	Dev Purkayastha
17	07010030	Pushkal Dharmendra	Kumar and Susan Shah Schp.	Kumar and Susan Shah

S. No.	Roll No.	Name of the student	Name of the Scholarship	Name of the Donor
18	07004003	Ankit Kishor Agrawal	Subodh Ghonge Schp.	Subodh Ghonge
19	07004027	Aashish Sharma	Mr. G M Nabar Schp.	Prafulla Nabar
20	07001014	Ravula Vasantha Rayalu	Subodh Ghonge Schp.	Subodh Ghonge
21	07d11016	Tiwale Nikhil Milind	H J Talsania Schp.	Abhay Talsania
22	07002017	Anurag Garg	Indira Manudhane Schp.	Avi Nash Mandhane
23	06002050	Rohan Gupta	Chamanlal and Labhkunwar Kothary Schp.	Niraj Shah
24	07512004	Krishna Mohan P	Abraham Thomas Schp.	Abraham Thomas

List showing the names of the Post Graduate students recommended for IIT Bombay Heritage Fund Scholarships for the period from July 2007 to June 2008

S. No.	Roll No.	Name of Student	Name of Scholarship	Name of Donor
1	07304011	Manish Rathore	Prabhakar D Mahajan Scholarship	Milind Mahajan
2	07304301	Adarsh S	-do-	Milind Mahajan
3	07307902	Sundaresan K M	Subha & Anand Talwalkar Schp.	Niranjan Talwalkar
4	07307911	Vekhande Vishal Y.	-do-	Niranjan Talwalkar
5	07307922	Datar Mandar Jayant	-do-	Niranjan Talwalkar

These scholarships were paid in addition to the TAschips awarded by the Institute for a period of 12 months. It may be noted that Milind Mahajan Scholarships were paid at the rate of Rs. 500 per month and Niranjan Talwalkar Scholarships at rate of Rs. 650/- per month.

3. Utilization of Funds

Amount paid for Scholarships

No. of Scholarships	Scholarship amount per month	Period	Total Scholarship Amount (Rs.)
72	Rs.1000	10 Months (July 07 to April 08)	720,000
4	Rs.1500	10 Months (July 07 to April 08)	60,000
10	Rs. 1000	10 Months (July 07 to April 08)	1,00,000

No. of Scholarships	Scholarship amount per month	Period	Total Scholarship Amount (Rs.)
13	Rs. 1000	4 Months (Jan 08 to April 08)	52,000
2	Rs.1000	12 Months (July 07 to June 08)	24,000
2	Rs. 500	12 Months (July 07 to June 08)	12,000
3	Rs. 650	12 Months (July 07 – June 08)	23,400
106			9,91,000

FACULTY DEVELOPMENT FUND

1. Introduction

The contributions made by the Alumni for Faculty Development Fund have made a very significant impact on the research activities of the Faculty members of the Institute. This fund is used by Faculty members essentially for international travel related to professional pursuits and dissemination of R&D results.

2. Utilization of Funds

The following Faculty members were given travel assistance from the Faculty Development Fund for the year 2007 –

S. No.	Name of the Faculty	Department	Details of Visit	Amount (Rs.)
1	Prof. Krishnendu Sinha	Aero Engg.	Participation in the 45 th AIAA Aero Sc. Meeting held at Reno, NV, USA on 8-11 Jan. 07	36,588.00
2	Prof. D.N. Manik	Mech. Engg.	Participation in the International Conference held at Hawaai, USA from 3 rd to 6 th Dec.06	30,000.00
3	Prof. Deepankar Choudhury	Civil Engg.	Participation in the International Conference Geo-Denver-2007 held at Denver, USA from 18-21 Feb. 07	23,422.00
4	Prof. V. Jothiprakash	Civil Engg.	Participation in the 6 th Int. Symposium of Eco-Hydraulics held at Christchurch Convention Centre, New Zealand from 18-23 February 07	25,426.00
5	Prof. K. Moudgalya	Chemical Engg.	Visit to University of Amsterdam from 8 th -10 th June 2006	23,993.00
6	Prof. R. Robinson	HSS	Participation in the workshop on Trajectories in the World Christian held at London, UK from 16-17 Feb.07	13,953.00
7	Prof. Ashok Misra, Prof. R.K. Shevgaonkar, Prof. D.V. Khakhar, Prof. R. Banerjee Prof. Anuradha Ganesh	PANIIT	Air Fare/Visa Charges	7,19,910.00

S. No.	Name of the Faculty	Department	Details of Visit	Amount (Rs.)
8.	Prof. A. K. Verma	Reliability Engg.	Participation in the International Conference on Modeling & Stimulation held at Montreal, Canada from 24-26 May 07	15,892.00
9	Prof. Ajit Srividya	Reliability Engg.	Participation in the International Conference in Canada from 24-26 May 2006	15,740.00
10	Prof. V. S. Raja	MEMS	Visit to University of Technology, Faculty of Mech. Engg.	1,357.00
11.	Prof. V. S. Raja	MEMS	Gdansk University of Technology, Faculty of Mechanical Engg. for Registration fee	30,465.00
12.	Prof. R. K. Shevgaonkar	EE	Executive Development Program At Kellogg School Of Mgmt., Northwestern University, USA from 14 th Oct.07 - 2 nd Nov.07	5,77,693.00
13.	Prof. R. Ghadially	HSS	Participation in PAN/FAN IIT Global meet during 6-8 July 2007 at USA	11,827.00
14.	Prof. R. Dusane	MEMS	Participation in PAN/FAN IIT Global meet during 8-9 July 2007 at USA	86,225.00
15.	Prof. Sudarshan Kumar	Aero. Engg.	Participation in the 4 th International Conference at Japan during 26-28 th Sept.2007	20,000.00
16.	Prof. Prasanna Gandhi	Mech. Engg.	Visit to NUS, Singapore during 29 th Aug.07- 02 nd Sept.07	4,269.00
17.	Prof. R.P. Kulkarni	Mathematics	Participation in the 9 th Intl. Conf. On Integral Methods in Sci. & Engg. held at Niagara Falls, Canada from 23-27 July06	10,470.00
18.	Prof. Krishnendu Sinha	Aero. Engg.	Participation in 46 th AIAA Aero. Engg. Meeting & Exhibit held at Reno, NY, USA from 7-10 th Jan.08	53,629.00
19.	Prof. S. L. Dhingra	Retd.Civil Engg.	Participation in 11th World Conference on Transport Research June 24-28 & PAN IIT 2007	28,789.00
20.	Prof. Anand S. Khanna	MEMS	Participation in the PACE 2007 -- International Conference on Surface Protective Coatings at Dallas, Texas, USA from 11-14 Feb.'07	50,000.00
21	Prof. Sudha Shastri	HSS	Participation in the VIII Conference on Women's Studies, Sites of Female Terror at Madrid, Spain from 12-14 March, 2007	80,000.00
22.	Prof. J. C. Mandal	Aerospace	Participation in the ICFD Conference on Numerical Methods for Fluid Dynamics held at University of Reading, U.K.	99,740.00
23.	Prof. S N DATTA	Chemistry	Participation in the 233rd ACS National Meeting & Exposition held at Chicago, USA from 25-29 March 07	49,448.00

S. No.	Name of the Faculty	Department	Details of Visit	Amount (Rs.)
24.	Prof. A. K. Suresh	Chemical Engg.	Participation in Conference on Energy & Environment of the MC Donnell International Scholars Academy at St. Louis from 4th -7th May 2007	93,640.00
25.	Prof. S.P. Mahulikar	Aero. Engg.	Visit to Seattle, USA for receiving O/S Reviewer Award for Journal of Heat Transfer, in Intl. Mech. Engg. Congress & Exposition during 11-15th Nov. 2007(IMECE'07)	1,00,000.00
26.	Prof. J. Venkateswaran	IE & OR	Participation in the IEEE International Conference on Industrial Engg. & Engg. Mgmt. held at Singapore during 2-5 December 2007	55,000.00
	Total			22,57,476.00

a). Total Amount Available in year 2007

Balance in year 2006	= Rs. 13,82,267
Amount received from IITBHF in 2007	= Rs. 21,35,527
Total Funds Available	= Rs. 35,17,794

b). Total Expenditure incurred during the year 2007 = Rs. 22,57,476

Balance in 2007 = Rs. 12,60,318

3. Remarks

IIT Bombay deeply appreciates the efforts of IITBHF in raising funds for Faculty Development Fund.

ENDOWMENT – HOSTEL MAINTENANCE (Class of '72)

The Alumni from the “Class of '72” have set up an endowment fund for Hostel maintenance through Alumni donations.

Funds received from Alumni through IITBHF and Alumni in India

Particulars	Year	Date of Receipt	Amount US \$	Amount (Rs.)
Alumni IITBHF	1998	22 nd Sept 98	22,000	9,30,380
Alumni IITBHF	1999	18 th October 99	7,800	3,37,272
Alumni India	1997-98		0	7,77,501
Alumni India	1998-99		0	83,701
Total			29,800	21,28854

The amount has been invested in Fixed Deposit and the interest earned is being transferred to the Hostel Development Fund for maintenance of hostels.

The Institute deeply appreciates the efforts of Alumni in mobilizing donations for Hostel Maintenance. The contributions from Alumni serve to catalyze the Institutional efforts towards appropriation of funds from its internal resources towards maintenance and upkeep of hostels.

FACULTY HOUSING PROJECT (Class of '77)

The Class of '77 had donated Rs. 46,63,310 towards the purpose of building houses for Faculty of the Institute. The project was undertaken to built multi storey buuilding consisting of 60 'B' type flats costing Rs. 13.00 Crores. The project was completed in the year 2006. 60 Faculty members have been allotted housing in the newly constructed building named 'Anantha'.

A view of the new Faculty Building named 'Anantha'



IIT Bombay deeply appreciates the Alumni from the Class of 1977 who have donated generously for the Faculty Building project.

POWAI LAKE PROJECT (CLASS OF '80)

1. Introduction

The Legacy Project of the class of 1980 was chosen to reach beyond the academic community of IIT Bombay. Powai Lake is an important determinant of the green environment of IIT campus. It was decided to make a contribution to the rejuvenation of this natural habitat.

With activist enthusiasm and contagious generosity the batch made a donation of approximately Rs. one crore for Powai Lake Rejuvenation Project. Since the magnitude of work required for desilting and water hyacinth removal is enormous, it was decided to pursue a two part strategy. In phase one to do specific developments near the Lake, to make it a recreational destination for campus community, and in phase two to lobby and actively pursue the rejuvenation efforts which need to be implemented by governmental agencies.

As part of phase one it was decided to develop the space behind the Convocation Hall and stretching upto the Lake into a garden and gathering space. An oversight committee was formed and a CEO was appointed by this committee, to be stationed at IIT to implement this work.

The oversight committee of the Legacy Project of class of 1980 is now pleased to inform that this garden is ready. The ground has been landscaped and a walking path has been created winding through the trees. On June 5, World Environment Day, representatives of the oversight committee and mentors from the IIT community came to plant saplings and trees which will give the garden its final shape. We thank especially prof R K Shevgaonkar and Mrs. Rashmi Misra for gracing the occasion. Formal inauguration and dedication are being planned for the near future.

The committee is also happy to share that Mr. Jayraj Phatak, Commissioner MCGB and alumnus of IIT Bombay has taken efforts to include the IIT side of the Lake in the initiative of the MCGB to spruce up the environs of the Lake. Desilting and cleaning activities have also now started. The Legacy Project will sustain its supervisory and supporting role in this effort.

ENDOWMENT – FACULTY DEVELOPMENT FUND (Class of '87)

1. Introduction

The Class of '87 had started a fund collection drive at the time of their tenth year re – union. The funds were targeted at Faculty Development. Funds were raised in India and US. The statement below gives the current position of the Endowment.

2. Activity Report

It was decided by the representatives from the Class of '87 that the endowment fund for Faculty Development would be utilized as per the following guidelines. The responsibility for selecting the Faculty for extending assistance has been entrusted to the Institute Advisory Committee constituted for purposes of examining requests for assistance to present papers at International Conferences.

Guidelines for Utilization of Funds:

1. The funds would be used for travel by young Faculty for presenting papers in International Conferences/ Seminars/ Symposia.
2. The term “Young Faculty” is used to cover full time Faculty up to and inclusive of Assistant Professors, who have joined the Institute preferably during the preceding two years.
3. Full actual round trip airfare should be covered under this assistance.
4. It should be possible to assist at least two (and possibly more) Faculty depending upon the conference venues, taking into account the fact that annually around Rs. 1.3 lakh is expected to be available.
5. Any unutilized amounts are to be carried forward to next year.
6. In case the guidelines indicated above do not cover all eventualities, the Committee may use additional criteria/ norms as deemed appropriate.

3. Financial Report

Funds received from alumni in US through IITBHF and Alumni in India

S.No.	Particulars	Year	Date of receipt	Amount US \$	Amount (Rs.)
1	Alumni in US	2000	26th April, 2000	26,115.28	11,37,059
2	Alumni in India	1997 -98			2,37,101
	Total			26,115.28	13,74,160

The amount has been invested in a Fixed Deposit and the interest earned is being transferred to Faculty Development Fund.

The Institute deeply appreciates the efforts of Class of '87 in mobilizing funds for “Faculty Development”. This endowment can make significant impact in faculty recruitment efforts.

FINANCIAL AID PROGRAM (Class of '81)

1. Introduction

The Class of '81 has initiated two projects – a Loan Scholarship and an Entrepreneurship Alumni Fund. The Loan Scholarship provides soft loans at minimal interest rates to needy students. This initiative is called the “*Financial Aid Program*”.

The Financial Aid Program (FAP – 81) is a Class of '81 Initiative. The motto of FAP- 81 is “*To make IIT Education Financially Achievable*”. As per the tradition of IIT Bombay, the students of class of 1981 met on the campus in December 2006 for the Silver Jubilee Reunion and regaled in nostalgia. Following on the footsteps of several previous batches, they resolved to fund legacy projects including Student Scholarship.

An extensive discussion was held on the nature of the student scholarships, i.e. Financial Aid Program [FAP]: whether they should be grants or loans. Finally, majority voted in favour of Loan Scholarships and they christened it as FAP - 81 [Financial Aid Program by Class of 1981]. Various factors considered were: erosion of endowment corpus over years due to inflation, low interest rates, spiraling cost of education, very few grant beneficiaries and of course the ability of an IITian to repay once he/she passes out. Thirty seven students of the class of 1981 donated over Rs 54 lakhs for FAP - 81. The donors constituted the FAP - 81 Committee and authorized it to implement the program.

The FAP - 81 scholarship is essentially a loan given by past students to the present students, who will repay it back with interest [and hopefully, generous donations] for the benefit of future students so as to keep the endowment perpetual and growing. The aid is given to fund tuition fees, mess bill, purchase of computers/ laptops, travel assistance for projects abroad and other miscellaneous needs of the students.

FAP - 81 was launched toward the end of July 2007. In its first academic year of operation, over 300 students inquired and over 150 applications have been submitted. After careful screening of the applications, majority of the applicants were personally interviewed to understand the “financial needs” profile of the students. In its first year, FAP - 81 has identified 65 needy students for financial aid and so far, over Rs 21 lakhs have been sanctioned/ disbursed to them. This compares well with the amount of annual Named Grant scholarships [Around Rs 8 lacs per annum] disbursement of IIT Bombay. Roughly 50% of the beneficiaries belong to SC/ST/OBC category, however financial need has been their

2. Financial Report

Funds received from Alumni

S.No.	Particulars	Date of receipt	Amount US \$	Amount (Rs.)
1	Alumni from USA (class of '81)	29 th July 2007	49,625.24	19,98,339.34
2	Alumni in India (Class of 1981)			2,55,000.00
	TOTAL		49,625.24	2253339.34

IIT Bombay is sincerely thankful to the Alumni who have donated for the Entrepreneurship Alumni Fund for fostering the spirit of enterprise amongst the Faculty and students of the Institute.

ENDOWMENT – YOUNG FACULTY JOINING BONUS (Class of '82)

The “Young Faculty Joining Bonus”, a Class of '82 Legacy Project, came into being on July 7, 2007 when the Alumni met the senior IITB Professors in the PAN – IIT meeting in Silicon Valley. The legacy project focuses on supporting young Faculty in their academic pursuits for the following reasons –

- Attracting good young Faculty to replace retiring Faculty and to augment current Faculty is a key element for IIT to maintain its long term competitiveness
- IIT is increasingly competing with private engineering colleges who have more latitude with their higher pay scales
- While IIT can never match Industry pay scales, a small “delta” during the initial years helps the Faculty and their family and shall make IITB more competitive compared to other Academic Institutes, thus making a tremendous impact in the long term
- IITB’s experience indicates that once Faculty members join IIT, they rarely quit. Hence, supporting the recruitment of junior Faculty can also help boost IIT’s chances of recruiting the best talent

The Alumni supporting this Legacy Project have envisaged to create a Corpus which would grant Rs. 1 lakh per year for up to 3 years to the recruited Assistant Professor. The Alumni of Class of '82 received an overwhelmingly positive response for this initiative and some significant quotes are given below –

“For IIT Bombay to join and successfully compete in the league of world class research universities, the most important objective is recruiting and retaining the most talented and dynamic young faculty members. The proposed 1982 batch Legacy Project is a critically important contribution - it will have a long term impact on future generations of students and faculty at IIT Bombay.”

- Prof. Pramod Khargonekar, Dean, University of Florida, School of Engineering

“Your approach is path breaking. It is innovative and it addresses a very important need at IIT. Your pioneering efforts will make a difference to the students, will make an impact in the community and you would have outdistanced the alumni efforts being championed by the other IITs.”

SUMAN MASHRUWALA ADVANCED MICRO MECHANICAL SYSTEMS LABORATORY

Department of Mechanical Engineering,

1. Introduction

Suman Mashruwala Advanced Microengineering Laboratory was inaugurated by our Alumnus, Mr. Raj Mashruwala, on 13th April 2007. Mr. Mashruwala has generously donated for setting up the Suman Mashruwala Lab. (Inauguration snaps and the snaps of facility created are available on the lab web site: www.me.iitb.ac.in/~mems). The laboratory hosts several state-of-the-art equipments including Microstereolithography, Excimer laser micromachining, MicroPIV, and Micromap 5010. The ongoing research activities in this lab span several areas including Microstereolithography, MEMS, Microfluidics, Micromechanics etc.

The Suman Mashruwala MEMS laboratory project was initiated with clear research and teaching deliverables. The specific objectives are as follows:

- To create a laboratory to trigger the young minds of undergraduate students by exposing them to the world of micromechanical systems simulation and experiments
- To create the infrastructure needed to start fundamental and applied research in the areas of engineering design, manufacturing and thermal & fluid technology related to MEMS
- To create a unique state-of-the-art facility in the Institute

2. Laboratory Activities:

The lab activities encompass design, analysis and development of micro mechanisms for various applications including xy nanostages, logic gates and mechanical circuits for future computation in harsh environments of high electromagnetic radiation. The work done in the lab has contributed in successful development of affinity sensor for myocardial infarction (point-of-care sensor for early detection of heart attack). A similar work on development of a sensor for explosive (RDX, DNT, TNT) vapor detection is ongoing. A technology (patent pending) for building true 3D polymer microcomponents is being developed in-house.

The process involves layer-by-layer building of microcomponent by using Ar⁺ ion laser scanning. The novel design with flexure mechanism enables fast fabrication of microcomponents with higher precision. Another technology for fabrication of coated nanoparticles in plasma chamber is under development. Recently research on dynamics and control of micromirrors for future display applications has been initiated. The nonlinear phenomenon of electrostatic pull-in instability has been investigated and novel methods to avoid the instability have been developed. The micromap facility at the lab is being used for characterization of these moving MEMS devices.

Research on microfluidics in SMA μ L focuses on understanding flow in microchannels, which are integral part of several microfluidic systems including lab-on-chip, micro-totalanalysis system (μ -TAS), and micro fuel cells. Numerical studies conducted have resulted in deeper understanding in the crucial areas like effect of surface roughness on the pressure drop in the microchannels, electrokinetic driven flows, and flow through micro-fuel cell where microfluidic channels are used to convectively transport the fuel in the flow-field. Lab facilities have been exploited for visualization and measurement of flows in such channels, using laser-based non-intrusive techniques. The fundamental understanding of micro-scale transport is also used for developing a low-volume whole-blood sensor,

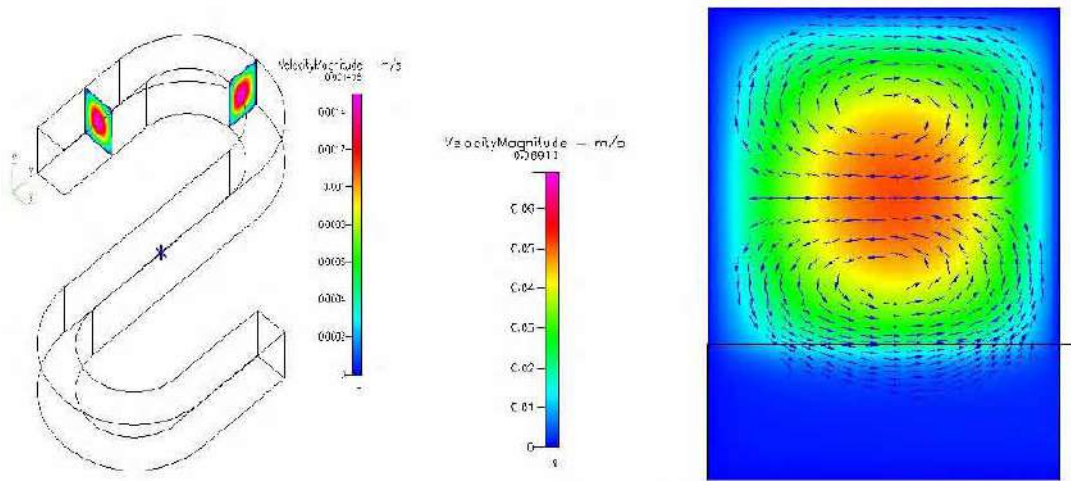
which may lead to a leap-frog development in point-of-care testing. Novel sensor architecture, comprising combined microfluidic/nanofluidic features, to filter/control whole blood flow, with an integrated nano-patterned gold electrode impedimetric sensor, is under development. The transport mechanism is investigated in the presence of porous transport layers (gas diffusion layers) of different permeability adjoining a microfluidic channel. Newer design of the porous layer is explored, which can be readily integrated with a micro-fuel cell.

Investigation has been carried out on micromachining of several materials with excimer laser micromachining. The research output is being used in fabrication of novel microfluidic devices for practical applications mentioned above. The work of developing new processes like excimer laser LIGA is ongoing.



(a) Micro mechanical NOT gate realized using flexure mechanism in polysilicon (total size 600 μm X 600 μm with minimum feature of 3 μm)

(b) SEM micrograph of Flexural xy nanostage (minimum feature size 3 μm)



(b) Microfluidic Simulations –

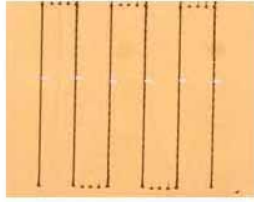
1. (a) Electroosmotic driven flow in serpentine microchannel
2. (b) Flow pattern in a μ -Fuel Cell
3. a). Microstereolithography (patent pending): being developed for the first time in India
- b) Plasma chamber in SMA μ L for fabrication of coated nanoparticles



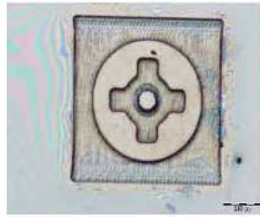
μ -PIV and micromap 5010 Systems – the first of their kind in India



Excimer Laser Facility and clean room setup of SMA μ L



Line Scanning of 6 μm width



Circular features



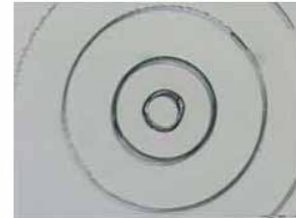
Text Writing within 800 μm



Gear with diameter
500 μm

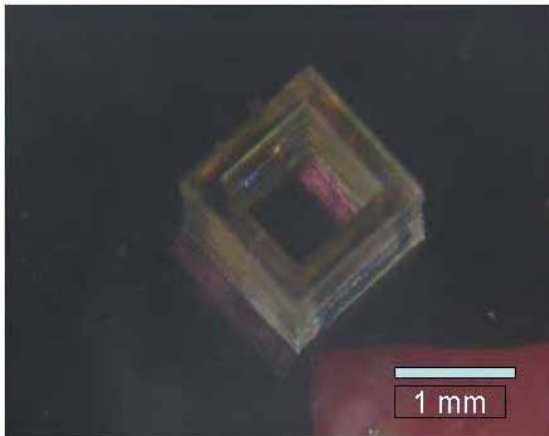


Complex Shape



Concentric Circles
100, 250, 500 and 1000 μm with
width 26 μm

Two Dimensional Structures fabricated by indigenously developed
Microstereolithography system



**Square tank with
1mm outer size,
800 μm inner size
wall thickness of 200 μm
Height of 500 μm
10 layers**



**Pyramid with 1mm size
fabricated inside a tank of
size 1.6mm
Height of the structure is
750 μm
15 layers**

Three Dimensional Structures fabricated by indigenously developed
Microstereolithography system

3. Manpower

The active team at the Suman Mashruwala Lab consists of 20 Faculty members and students from the

Department of Mechanical Engineering. Details are given below:

Faculty Members:

1. Amit Agrawal
2. Upendra Bhandarkar
3. Prasanna S. Gandhi
4. Suhas S. Joshi
5. Sushanta. K. Mitra
6. Dnyanesh N. Pawaskar
7. S. V. Prabhu

Research assistant: (M Tech 07)

1. Vishal Barde: “Development of Micromachining Processes using Excimer Laser”(SSJ)

Institute RA: (M Tech 08)

1. Amit Pathak

Ph.D. students:

- Suhas Deshmukh: “Design and Analysis of Microstereolithography” (PSG)
- Auro Saha “Microchannel fluid flows” (SM)
- Rahul Shukla “PiezoMEMS based energy scavengers” (PSG, Lim@NUS)
- Prabhakaran “Biosensor based on magnetic nanoparticles” (DB, SoumyoM, PSG)
- Prashant Waghmare “Nanofluidic bases bio-sensor” (SM)
- Manish Jogalekar “Extending travel range of electrostatic actuators” (DNP)

B.Tech students: On an average, 6 BTech students work for their projects in the lab. Since the lab activities involve experimentation (which most BTech students are not comfortable with the same) not many students sign up for the lab projects. The team is strong with 7 Faculty members, 4 PhD scholars, more than 15 MTech students and several BTech students working at any point of time on the topics related to the research deliverables of SML project or topics of future expansion of the lab. However

lack of full time TAs and office support on a continued basis are perennial problems being faced by the lab. It is hoped that these problems will be resolved in the near future for better functioning of the lab and the further advancement of research activities.

4. Financial Statement:

A. Funds received through IIT Bombay Heritage Fund

Donor	Date of Receipt	Amount in USD	Amount (Rs.)
Rajesh Mashruwala	1 st July 2004	100,000	45,62,000
	1 st July 2004	400,000	1,84,56,000
	9 th March 2005	400,000	1,73,84,000
	15 th Jan 2008	100,000	39,31,121
Total		1000,000	4,43,33,121

B. Expenditure Statement (up to 2007)

Nature of Expenditure	Amount (Rs.)
Equipment	2,50,03,040
RA Fellowship	2,94,758
Salaries	2,64,832
General Expenses	7,87,975
Purchase of Equipment (to be paid in 2008)	59,91,117
Total	3,23,41,722

a). Total Funds Received **Rs. 4,43,33,121**

b). Total expenditure incurred up to Dec. 31, 2007 **Rs. 3,23,41,722**

The total expenditure of Rs. 3,23,41,722 includes committed expenditure towards purchase of equipment and will be paid during the year 2008.

INDIRA MANUDHANE FOUNDATION PROJECT
Department of Chemical Engineering,

The activities undertaken under the Indira Manudhane Foundation funding under Phase I have now been completed. In the first phase, the activities undertaken have been in the areas of recognition of excellence and infrastructural improvement. Under the first, the Manudhane awards instituted for faculty and students under various categories are now in their fourth year. The award structure and processes for selection have been honed over this period and the awards have had a motivating influence overall. For faculty, these awards recognize excellence in teaching and research (fundamental and applied). For students, the awards recognize overall excellence and academic merit. Eighteen Faculty, six UG students and ten PG students have so far received these awards.

Under infrastructural, development, two main activities have been completed with additional funding support from the Institute. The first is the renovation of classrooms whereby all classrooms in the department (4 large and 3 small) have been completely transformed with better acoustics, new furniture, audiovisual teaching and projection aids. These are now among the best in the Institute. In the second activity, undergraduate laboratories have been brought under one roof with a comprehensive overhaul of all experiments, and a fully-equipped instruction facility has been created. An indirect influence of this upgradation has been an overhaul of laboratory instruction as well, in the departmental curricula and this has been outlined in Annexure IV of this report. Apart from the salutary effects on instruction, this activity has led to availability of valuable space in the main departmental building for research activities, and these spaces are now being renovated with Institute support.

1. Introduction

This Project was funded through a handsome donation of \$1 million, pledged by Mr. Avinash Manudhane, an alumnus of the department. The MoU drawn up towards the utilization of funds identified several activities to be undertaken in two phases. The first phase is now substantially complete and this report describes the status. The following sections describe the major activities taken up under the Project.

2. Manudhane Awards

The objective of these awards is to promote excellence in teaching and research among faculty, and to foster academic excellence among students. Three student awards and six awards for faculty are being conferred every year. The selection procedures have evolved over the years keeping the spirit behind the awards in focus. Presently, faculty members are automatically considered without any nomination, and the Head of the Department is excluded from consideration of all but the Teaching award.

The details of the awards are given in the Annexure I and have been taken from the announcement for 2007. Three rounds of awards have now been completed and the fourth (for 2007) is in the final stages of implementation. So far, six B.Tech students, five Masters' students and five Doctoral students have been conferred these awards. A list of awardees is attached in Annexure II.

It is generally perceived by the faculty that the quest for excellence had seen a dramatic change over the past few years, partly due to the institution of these awards. The Best Teacher Awards for 2007 could not be given because the student votes were more or less evenly divided (indicating a generally high quality of teaching) and the award criteria require a minimum percentage of votes for eligibility (33% for UG teaching and 25% for PG teaching). The research record of the department, both fundamental and applied, has seen an upward trend and it is likely that the awards have had some influence here also.

3. Infrastructure Development I: Classroom Renovation:

Under the project, the original intent was to renovate six classrooms. With additional support from the Institute the seventh (Room 230) was also added and thus all seven classrooms in the department have now been renovated. The details are given below:

<i>Classroom number</i>	<i>New name</i>	<i>Seating Capacity</i>	<i>Remarks</i>
118	Creativity Hall	100	Seminar Hall
149	Humility Hall	90	
130	Integrity Hall	90	
230	Discovery Hall	65	
228	Perseverance Hall	35	
235	Excellence Classroom	35	
301	Inspiration Classroom	35	

All rooms have been designed for better acoustics and are equipped with audio-visual teaching aids.

Some photographs together with impressions of faculty and students are given in Annexure III.

4. Infrastructure Development II: Undergraduate Laboratories

Previously the instructional laboratories were located in different parts of the Department building. The experiments were old and it was generally felt that the lab program was the weak link in the chain of UG training. Efforts were made to revitalize the labs but funding problems have prevented qualitative changes.

Under the funding from Indira Manudhane Foundation and with additional support from the Institute, a large hall (in a location called S-2 bay) was completely revamped, new instructional facilities created, and all the labs were moved there. In addition to the laboratory space, an instructional-cum-analysis facility has been created for students to carry out simulations, analyses, calculations etc. The facility is also useful in delivering lectures associated with the labs. This lab has now been functioning for two years and is continuously being upgraded with new experiments. Concurrently with this development, the departmental faculty also undertook a major overhaul of the laboratory courses, rationalized the number of experiments in the different labs and also the methods of instruction and evaluation.

While there have been curriculum changes from time to time, the overall change in the lab program that has now happened is easily the most important milestone that UG Education in Chemical Engineering department has seen at IIT Bombay. The students initially felt an increase in the work involved in the laboratory and had mixed feelings about it, but have soon come to appreciate the learning component. Annexure IV gives the background and details of the changes that the departmental curriculum has seen in UG lab work. It also presents some visuals of the lab and student impressions.

5. Departmental Performance and Challenges

On other fronts, the erstwhile computer aided centre of the Institute has now become a part of Chemical Engineering and has been housed in recently renovated environs. The department has done well in faculty recruitment, with the current strength of 33 making it the largest for Chemical Engineering in the country. The performance indicators, whether in research publications, sponsored research and

industrial consulting or educational outreach, have been on an upward trend. All this has resulted in the department emerging as a place of first choice for students in all programs of study. The department now boasts of over a hundred students in the PhD program, up from about 30-40 about five years ago which is a very encouraging trend.

While the overall performance has been on the upswing, there are several challenges facing the department. The department building is now old and is continuously in need of maintenance. Some of the modern work needs the kind of quality space that is difficult to provide in the existing building. The increasing research focus and manpower demands high quality technical and administrative manpower at the support level in sufficient numbers and this is a problem area both because of the constraints on recruitment and because of poor availability of skilled support manpower. Impending increases in student numbers demand corresponding increases in faculty strength, space and research infrastructure. The Departmental Policy Committee has decided on 60 as the target number for faculty; achieving this and providing adequate facilities for all is a huge challenge.

6. Financial Report:

A. Funds Received

Donations Received	Amount (USD)	Amount (Rs.)
Avinash Manudhane	25,000	11,40,500
Avinash Manudhane	125,000	54,00,000
Avinash Manudhane	125,000	57,05,287
Total	275,000	1,22,45,787

B. Expenditure Statement

Nature of Expenditure	Amount (Rs.)
Civil Work	83,50,767
Equipment & General Expenses	48,06,522
Total	1,31,57,289

Balance – There has been a deficit of **Rs. 9,11,502** and this amount has been paid from the Institute Funds.

Expenditure for Excellence Awards

S.N o.	Name of the Award	Amount (Rs.)
1.	Indira Manudhane B.Tech. Student Excellence Award	30000
2.	R.G. Manudhane M.Tech. Student Excellence Award	10000
3.	R.G. Manudhane PhD Student Excellence Award	20000
4.	Indira Manudhane Best Undergraduate Teacher Award	0
5.	Indira Manudhane Best Post Graduate Teacher Award	0
6.	RG Manudhane Faculty Research Excellence Award	0
7.	Indira Manudhane Applied Research Project Award	30000
	Total	90000

7. Future Plans:

Looking further, the following plans are on the anvil under the Indira Manudhane projects --

7.1 Chair Professorship:

Prof. S.K. Gupta, a distinguished Polymer Scientist currently at IIT Kanpur, has been identified for the first Avi Nash chair. Prof. Gupta, with his vast experience in the areas of Systems and Polymer Reaction Engineering, and with his extensive contacts in Industry, is expected to bring together the polymers activity in the department and give it a boost. His appointment will also be of great help in the Membrane Science activity being proposed (see below). Details will be sent to the donor from the Office of the Dean (RM).

7.2 Membrane Science & Technology Research Facility

About Rs 40 lakh has been raised through project funding for the new activity of Membrane Science and Technology which brings several types of expertise in the department together towards a focused application area. Further plans to upgrade and enable the formation of a centre are being made.

7.3 Postgraduate / Research Laboratory Upgradation

This is an identified Phase II activity. The Departmental Policy Committee will generate proposals for this and apprise Mr. Avi Nash about the same.

8. Conclusions

The infusion of funds through The Indira Foundation Project has released the department from financial constraints in several areas and has helped propel the department forward on the road to greater levels of achievement. There are significant challenges facing the department however, and the department through its Policy Committee and the help of the Institute is formulating strategies to face these challenges in an adequate manner.

In summary, the Indira Manudhane Projects have played a significant role in propelling the department forward. The department has done well overall and is being seen as one of the foremost departments of Chemical Engineering in the country. Some areas of concern remain however. The department's existing building is showing its age. The problem of finding quality manpower for administrative and technical support in sufficient numbers is acute. The impending increase in student numbers requires significant infusion into faculty ranks, and finding talented people in required numbers and providing them with the necessary space and research infrastructure is a major challenge. The department and the Institute are working together to address these issues.

ANNEXURE – I

Manudhane Excellence Awards - 2007

The Manudhane Excellence Awards have been made possible through a donation from the Indira Foundation, a trust promoted by the 1975 alumnus of the Chemical Engineering Department, Mr. Avi Nash. The individual awards are named after his parents Mr. R. G. Manudhane and Mrs. Indira Manudhane and are intended to encourage excellence in learning, teaching and research (particularly applied research) in the Department of Chemical Engineering, Indian Institute of Technology – Bombay. The awards are given each year according to the rules given below. The 2007 awards were announced in May and August 2007.

Head, Department of Chemical Engineering

IIT Bombay

April 3, 2007

1. Indira Manudhane Best Undergraduate Teacher Award 2007

One prize Rs. 70,000

- The award will be decided based on voting by students.
- Students eligible to vote: 4th year B.Tech students and 4th year DD students.
- Eligible teachers: Those who have taught the students at least one course

2. Indira Manudhane Best Postgraduate Teacher Award 2007

One Prize: Rs. 40,000/-

- The award will be decided based on voting by the students.
- Students eligible to vote: final year DD students, final year M.Tech students, and Ph.D. students who completed their coursework in 2007 April.
- Eligible teachers: Those who have taught the above students at least one course and who have not received the same award in the last 3 years.

3. Indira Manudhane BTech Student Excellence Award 2007

Best student prize: Rs. 30,000

- *Criteria:* (i) Commendable academic performance (say greater than 7.75 CPI) with (ii) strong participation in extracurricular activities and (iii) integrity.
- *Eligible students:* 4th year BTech and 4th year dual degree students.
- The top 3 candidates will be selected by voting by 4th year BTech and 4th year dual degree students.
- Final selection from the top 3 vote getters by a faculty committee comprising Head, Chemical Engineering, plus two faculty members, taking inputs from all faculty members.

4. R. G. Manudhane Student MTech Excellence Award 2007

Best MTech Thesis: Rs. 10,000

- HOD will invite nominations from faculty supervisors after MTech thesis submission.
- A committee with three faculty members and two outside members will make the selections based on quality and scope of work done. The committee will have at least one outside member.
- The award will be declared at the convocation

5. R. G. Manudhane Student PhD Excellence Award 2007

Best PhD Thesis prize: Rs. 20,000

- HOD will invite nominations from faculty supervisors in July .
- A committee with three faculty members and two outside members will make the selections based on quality and scope of work done. The committee will have at least one outside member.
- The award will be declared at the convocation

6. R. G. Manudhane Faculty Research & Development Excellence Award 2007

One Award - Prize amount: Rs. 40,000

- The award will be given annually recognizing "research" excellence and "development" excellence in alternate years (Award for 2007 will be for development excellence)
- Criteria for "research" award: high quality publications in high impact journals in the previous two years. The cumulative Impact Factor of journals in which papers are published greater than a threshold value (say 6).
- Criteria for "development" award: excellent process or product development implemented in industry, or outstanding patents granted in the previous two years.
- No award will be given if criteria are not met.
-

7. Indira Manudhane Applied Research Project Awards 2007

3 awards of Rs. 30,000 each

- *Eligibility:* Faculty members with a project funded by industry greater than some specified amount (say Rs. 1.5 lakh)
- In case of more than 3 projects the top 3 based on value would be selected. In case of ties (very similar value) preference would be given to repeat orders.
- No award will be given if criteria are not met.

ANNEXURE - II

The Recipients of the **RG Manudhane Excellence & Indira Manudhane Excellence** Awards during 2007 are as follows:

Year	IM BTech. Student Excellence	RGM MTech. Student Excellence	RGM PhD Student Excellence	IM Best UG Teacher	IM Best PG Teacher
2007	Sumedh R. Risbud / Miss Shweta Shah	Sachin Kadu	Prashant Bapat / Meka Srinivasa Rao	--not awarded--	-- not awarded--

The Recipients of the **RG Manudhane Faculty Research Excellence & Indira Manudhane Applied Research Project** Awards during 2007 are as follows:

Year	RGM Faculty Research Excellence Award	Indira Manudhane Applied Research Project Award
2007	Not recommended	Prof. Mahesh Tirumkundulu

ANNEXURE-3

Selected visuals and User impressions of renovated Classrooms



Fig.1: Creativity Hall: (left) The signage outside; this signage is typical of what has been used in other lecture halls as well.

(Right) A view of the interior - Creativity Hall is used for lectures for second year UG as well as for Departmental seminars.



Fig.2: The interiors of (left) Integrity Hall and (right) Humility Hall. The former is used for 4th year UG classes and the latter, for 3rd year UG classes.



Fig.3: Interiors of the smaller classrooms used for PG/UG elective teaching.

Left: Perseverance classroom; Right: Excellence classroom.

New classrooms: Some impressions

The newer classrooms has better acoustics, excellent projector, computer facilities which made listening lectures, giving presentations a lot more convenient to students and also professors. - *Rajesh Grandhe, Final Year Undergrad, 2007-08*

The ambience of the classroom provides a calm atmosphere for attending lectures. -- *Saurabh Baid, Final year (Dual Degree), 2007-08*

The best feature of the lecture rooms is the airconditioner. Needless to say, classrooms of Chemical Engg. Dep are now one of the best in the campus - *Ankit Dixit, 2007 passed out student*

[Note from HoD: AC is fitted only in the Creativity Hall which is also used for Departmental Seminars]

It is a pleasure to teach in this classroom (Creativity Hall)...

-- *Prof. Y.M. Desai, Department of Civil Engineering, who taught a course on Solid Mechanics to Chemical Engineering students*

The layout of the (Creativity) hall makes it possible to maintain eye contact with even the last benchers in a class of 100...teaching is therefore very effective...The smaller classrooms also have great acoustics and students find it possible to follow the lecture with ease no matter where they are sitting... they are also great for holding presentations and meetings...

-- *Prof. A.K. Suresh, who has taught in the Creativity Hall, Discovery Hall and Perseverance classroom, also the previous Head of the Department*

ANNEXURE-4

Undergraduate Laboratory Upgradation

Background

The need for major upgradation and renovation of the UG laboratory was felt due to following reasons. The different laboratories in the past used to operate in isolation and were managed separately by the staff/faculty associated with them. The interaction among them and overall co-ordination was minimal. This had resulted in non-uniformity in the nature of the labs and the evaluation pattern. Also the limited funds for UG Labs received from time to time resulted only in a piecemeal upgrade in terms of new setups and maintenance of the equipment.

Taking into consideration the above facts, a UG Lab Task force was set up in September 2002, which consisted of about 6-8 department faculty members. The taskforce met on a regular basis to plan the major revision of the UG labs, assigned activities to different members and completed the upgradation project over a period of about two years. The major financial support for this activity came from Indira Foundation Fund raised through the donation from an Alumnus of the Department, Mr. Avi Nash. Institute also contributed by providing the matching grant mainly used for civil and electrical renovation work. The total expenditure for renovation and equipment is close to Rs 500 lakh.

Location

The experiments from different laboratories of the Department are moved to a single common location to enable efficient maintenance and management. An area of about 12000 sq ft (N1 bay and S2 bay labs) was identified for this purpose. Old equipment installed in this area was dismantled, scraped and the space was cleaned out. More than 40 new and old experimental rigs were installed. Apart from the facility for the laboratory setups, a dedicated computer room with 25 machines was constructed and is being exclusively dedicated to lab. related activities. The students use this facility to perform the experiment-related computational work such as analysis of experimental data, modeling, simulation and for working on commercial simulators such as ASPEN, FLUENT etc.

New Experiments

In the new structure all the experiments come under a single umbrella “Chemical Engineering Lab”. Nevertheless the experiments were broadly categorized based on the area, viz Heat Transfer, Mass Transfer, Kinetics, Thermodynamics, Process Control, Fluid Mechanics and Miscellaneous. Each member of the Taskforce committee headed a subcommittee comprising additional faculty members working in common area. The subcommittee was given the responsibility of reviewing experiments in the concerned area. Separate meetings of the subcommittees were arranged to plan modifications in the existing experiments, elimination of obsolete experiments and identification of new experiments. A thorough evaluation of the old setups, their functionality and suitability in context to the current curriculum was performed. Table 1 gives the consolidated list of the proposed experiments. A strategy to introduce the new experiments was worked out. Some experimental rigs were fabricated internally and some of them were procured from reputed suppliers such as PIGNAT, France, Texol Engg. India, SLR equipment, India etc. Apart from the new experiments non-functional models of equipment (e.g. distillation column, heat exchangers) and chemical plants have been procured for demonstration purpose.

Content and Schedule

A thorough survey of the lab content in the curriculum of selected universities in India and abroad was conducted. The number of experiments in the old structure was found to be relatively high (about 54). It was decided therefore to bring the number down to 40 high-quality experiments. On an average, in the past, there was not much emphasis on open-ended experiments and detailed analysis of experimental results. The extra time available by reducing the number of experiments is now being utilized for this purpose. The entire chemical engineering lab program is spread over the four semesters (Semester 4 to Semester 7) and each student performs about 10 experiments per semester.

Evaluation

It was thought necessary to introduce a uniform method of evaluation for all the labs. Unlike the old

pattern, the students now independently perform experiments as a part of their examination. Pre- and post-viva, laboratory reports and tutorials also have a due weightage in overall evaluation. The students in the final year lab are encouraged to perform innovative experiments. The performance in the same is evaluated through poster presentation at the end of the semester. A scheme of evaluation has been worked out based on the discussions in several taskforce and faculty meetings.

Laboratory Staff

The new UG lab is run by the following staff:

- 1 Laboratory Manager
- 3 Senior Technical Assistants
- 2 Attendants
- 40 Teaching Assistants: The teaching assistants who form the main work-force to run the labs on day to day basis are either Masters or Ph.D. students. They give instructions to the students, monitor the performance of them and also have a share in the overall evaluation.

Table 1 - List of UG Laboratory Experiments (Semester IV to VII)

- | | |
|----|--|
| 1 | Flow through hoppers and pneumatic conveying |
| 2 | Fluidisation |
| 3 | Batch settling of solid slurries |
| 4 | Size reduction and sieving |
| 5 | Plate heat exchanger |
| 6 | Finned tube heat exchanger |
| 7 | Heat transfer a submerged helical coil in an agitated vessel |
| 8 | Heat transfer in Laminar flow |
| 9 | Heat transfer in turbulent flow |
| 10 | Gas -Liquid absorption |
| 11 | Differential Distillation |
| 12 | Continuous Distillation |
| 13 | Cooling Tower |
| 14 | Ion Exchange |
| 15 | Batch distillation |
| 16 | Temperature control in stirred tank |
| 17 | Level Control (Interacting system) |

- 18 Level Control (Non-Interacting system)
- 19 Strain Guages / Temperature Measurements
- 20 Characterization of Control Valves
- 21 Flow through piping network (Friction Factor)
- 22 Nature of flow
- 23 Porosity measurement
- 24 Determination of partial molar enthalpies by adiabatic calorimetry
- 25 Ebulliometric determination of vapor pressure
- 26 Ebulliometric determination of infinite dilution activity coefficient
- 27 Vapor liquid equilibrium
- 28 Determination of dynamic surface tension by using Tensioner
- 29 Kinetics of esterification reaction (Solid -Liquid)
- 30 Batch reactive distillation
- 31 Miceller Catalysis
- 32 Homogeneous reaction
- 33 Interfacial nitration
- 34 Residence time distribution
- 35 Gas Chromatography
- 36 Metal recovery from dilute solution with electrochemical method

What the students say:

The department lab with more number of computers helps a great deal in the lab work - *Onkar Dalal, Final Year Dual Degree, 2007-08.*

The renovation in S2 bay is done nicely. The labs where Prof. Jadhav & Prof. Sarika Mehra now sit has also been renovated very well. It looks pretty 'pseud'! overall...seems like the money is being well spent - *Preshit Dandekar , 4th year B.Tech, 2007-08.*

UG Labs at IITBChE -- The new face: Looks and impressions



Clockwise from top left: New logo for the UG Lab, View from the entrance, Computer-aided instruction room, A typical set up (reaction kinetics).

ENDOWMENT – WADHWANI ELECTRONICS LABORATORY

Department of Electrical Engineering

1. Introduction

The Wadhvani Electronics Lab (WEL) was formally inaugurated by Dr. Romesh Wadhvani on February 12, 2001. This laboratory has significantly enhanced the electronics related activity in the EE Department both qualitatively and quantitatively. Several new instruments of the low-end type have been purchased from the Wadhvani donation fund to serve UG as well as PG students working in the WEL. A few high-end instruments have also been acquired, and these are being used for special requirements. A large number of PCs (70) have been purchased to facilitate PCB design, programming of FPGA chips, ARM Processors, basic microcontrollers and accessing data sheets on the Internet etc.

Broadly, the following activities are supported by WEL:

- 1) Electronics Lab courses (Digital circuits, Semiconductor Devices and Circuits, Analog circuits) for UG students in the second and third year in the EE Department.
- 2) Basic electronics lab courses for UG students from other department in the institute, viz., Mechanical Engg., Metallurgical Engg., Chemistry, Chemical Engg., and Computer Science.
- 3) Electronics Design Lab, which involves a number of novel projects carried out by 3rd and 4th year students. Some of the projects are expected to be converted to products.
- 4) Microprocessor Lab course (UG, 3rd year).
- 5) Embedded Systems Lab (M. Tech.)
- 6) Techfest activities during which students from IIT and other colleges participate in competitions involving electronics.
- 7) WEL Innovation cell activities where lab lectures are conducted for the 1st year UG students and small experiments and projects are assigned to them for training purposes.
- 8) Some of the Continuing Education Programme (CEP) courses are conducted in the Wadhvani lab.

The following courses have been held:

- a) “Mechatronics” for industry professionals.
- b) “Digital Electronics and Microprocessors” for employees of Indian Petrochemicals Corporation Ltd (IPCL).

- c) “Teaching Engineering Effectively” for engineering college faculty members and industrial professionals. The programme conducted in the Wadhvani Lab focused on “How to conduct lab Courses.”

Many of the activities had not been possible earlier (at least not on the same scale), because of infrastructural limitations or sometimes simply because the various electronics activities were physically apart. WEL has made it possible to bring almost the entire Electronics activity in EE under one umbrella. This has also boosted the enthusiasm among students.

WEL currently caters to over 700 students every year. The lab has a large variety of Microprocessor kits, cross assemblers and other utilities for these processors, single-board computers, online EPROM programmers, logic analysers and in-circuits emulators, for use in the Microprocessor lab course. WEL also supports experimental instruction in analog and digital circuits and projects in electronics design and is equipped with the latest series of oscilloscopes, function generators, FPGA programmers, digital multimeters etc.

The Operating amount of \$15,000 that is received annually is used for the purchase of consumables, electronic components, salaries, contingencies, and maintenance of instruments.

2. Report of Activities:

Several design courses are currently running in the lab, and they have a significant amount of project work. In addition, some of the electronics lab courses also incorporate some project work in order to supplement the concepts taught in the class room and make the courses more application-oriented.

i). Electronics Design Lab (EE 318/ EE389) Projects:

EDL Projects - Year 2007

- 1) High speed USB interface for a digital processor system.
- 2) Solar cell battery charger using maximum power point tracking scheme.
- 3) Break-in Detector and Alarm system.
- 4) Remotely and locally administrable access control system.

- 5) Solar power optimizer and battery charger.
- 6) Small signal pulse detection, and conditioning.
- 7) Feed forward linearization of power-amplifiers.
- 8) Interface between Camera and Mote.
- 9) Secure wireless transmission of data via encryption and frequency hopping.
- 10) Local area paging network.
- 11) Electronic distance measurement.
- 12) Motion detector and alarm system.
- 13) Altimeter/Variometer.
- 14) Online data acquisition transfer to PC through USB.
- 15) Measuring distortion in mains supply.
- 16) Online data acquisition and offline download.
- 17) Learning-Aid using LED matrix.
- 18) Electronic distance measurement.
- 19) Wireless electric power quality sensor.
- 20) Transmission of analog audio signal through wireless medium using radio frequency.
- 21) Metal Detector for Microwave oven.
- 22) Signal generator using direct digital Synthesizer.

EDL Projects - Year 2008

- 1) Vowel Synthesis
- 2) Optical Data Encoding (Scanner)
- 3) Optical Data Encoding (Imaging Chip)
- 4) Map distance tracker
- 5) RFID lock
- 6) Wind Direction & Strength Tx /Rx
- 7) Portable pedometer with display (USB)
- 8) Mobile + GPS Tracker
- 9) Guitar Tuner & tone generator
- 10) RFID system (Reader, Toll collector, UHF automatic)

- 11) Voice Matched vowel synthesizer
- 12) Fiber Optic Display
- 13) Pocket Storage Oscilloscope
- 14) Multi-channel Power Board
- 15) Memo Clock
- 16) Speech Based Lock
- 17) SUN Tracker
- 18) GPS Navigation system
- 19) Pedometer
- 20) Subcutaneous/ Biomedical Sensor
- 21) Automatic Note Taker

ii). Embedded Systems Design (EE 712) Projects list:

- 1) PDA using 8051
- 2) Home Security System
- 3) CFL intensity control
- 4) Fan Speed Control
- 5) Defraction Based Measurement of wire diameter
- 6) Alarm System
- 7) Smart battery tester, analyser
- 8) Rechargeable battery life analyser
- 9) Electronic Stick for the visually challenged persons
- 10) Weather Station
- 11) General Purpose Programmer
- 12) Voltage Regulator Using Fractional Time Cycle
- 13) Multipurpose conference system
- 14) Pulse Measurement

iii). Electronics Design Lab-II (CS -292) Projects list:

- 1) Sound Processor

- 2) Ultra Sonic Motion Detector
- 3) E-Hunt
- 4) Function Generator
- 5) ATM Password Verifier
- 6) Digital Combinational lock
- 7) Mini – Calculator
- 8) Gate Entry Counter and Proximity Sensor
- 9) Heartbeat Counter with display
- 10) Analog to Digital Converter
- 11) 4-bit ALU
- 12) Delta-Phi: A Phase Difference Meter
- 13) Shadow Activated Motion Detector
- 14) Drizzle game
- 15) Random number generator

iv). Digital Circuits Lab (EE -214) Projects list:

- 1) Tum Tum Tracker (“Tum Tum” is the name of mini-bus that plies inside the campus)
- 2) Reaction Timer
- 3) Digitally controlled SMPS
- 4) Board Game
- 5) Morse Code Decoder
- 6) Traveling Message Display
- 7) H-bridge motor controller
- 8) Elevator Synchronisation
- 9) Cyclic Redundancy Check
- 10) Car racing game
- 11) Intelligent Tic-Tac-Toe
- 12) Electronic Code Lock
- 13) Buzz Network
- 14) IC Tester
- 15) Calculator with display

- 16) FSK Reception and Decoding in a Modem
- 17) Serial Data Encryption, Transmission and Decryption
- 18) Encryption (using LSFR) and Error detection (using Hamming Code)
- 19) Traffic Management System
- 20) Micro Computer
- 21) Target Follower
- 22) Digital Voting Machine
- 23) Stop watch
- 24) Stepper Motor Controller and Applications
- 25) Guitar Tuning by Frequency Measurement
- 26) Base Converter
- 27) Sound Recognition
- 28) Digital clock
- 29) Rolling LED Display
- 30) Digital Safe
- 31) DC Motor Speed Control along with parking sensors
- 32) Shoot the Balloon Game

Techfest 2008

During the annual “Techfest” event organized by IIT Bombay students (in January), the lab provided major support to participants who submitted entries for a competition based on electronics, viz., the “Voice controlled circuit” competition. Lab resources were intensively used during this time and it was heartening to see the lab filled with students at any time of the day or night and students working hard on their respective project. Many instruments of WEL were loaned to students to work on projects.

WEL saw a few winning entries at Techfest’08. Micro-mouse is one such event. In this contest, the team designs and builds small self-contained robots (micro-mice) to negotiate a maze in the shortest possible time. A micro-mouse is a device with a chassis, a drive motor or motors to move it, a steering and turning mechanism, sensors to detect the presence or absence of maze walls, sensors and control logic to keep the vehicle “on track” and batteries to provide power.

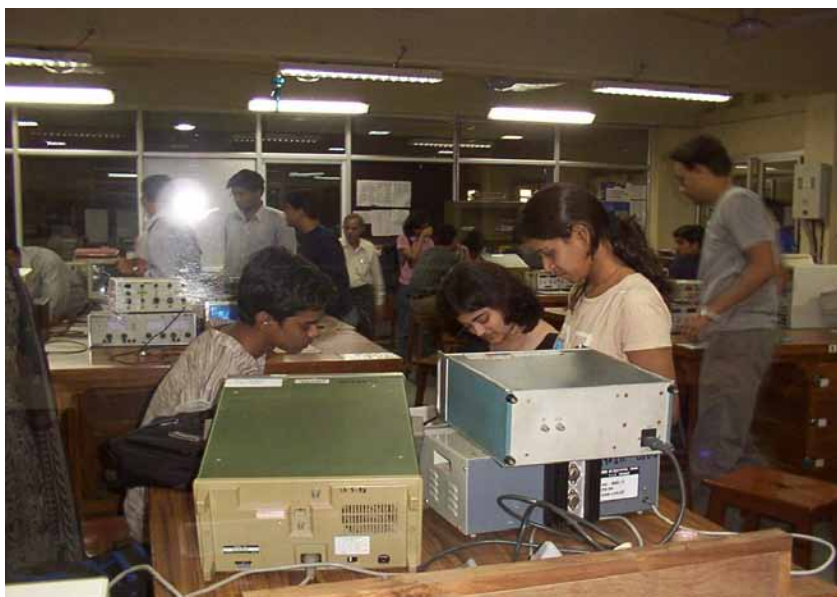
There were six teams working in WEL out of the 30 teams that participated in the event and they won two prizes (for “Micro-mouse” and “Scitech Quiz”).

3. Financial Report

IIT Bombay received US \$ 29970 (Rs. 12,05,244) from Mr. Romesh Wadhvani through which maintenance expenses of the laboratory are being met.



Lab Session in progress in the Wadhvani Lab



**Students working on the “Electronics Design Lab”
Projects in the Wadhvani Lab**

ENDOWMENT FOR CHAIRS AND FELLOWSHIPS IN THE DEPARTMENT OF COMPUTER SCIENCES AND ENGINEERING (Vijay Vashee, Vincent Fernandes)

I. Introduction

Dr. Vijay Vashee {Alumnus, B.Tech. (Elec. Engg.), 1975} has donated \$300,000 on March 8, 2002 to the IIT Bombay Heritage Fund, to promote academic excellence in Computer Science and Engineering. Mr. Vashee had desired that the proceeds from his donation be utilized towards establishment of an Endowed Chair, Student Fellowships and Awards for Excellence in Research in Computer Science and Engineering. He further gave \$50,000 in September 2002 for Excellence in Research Awards and \$59973 on September 17, 2002 for Thomas Dooie Fellowship for a Dual Degree student in the department.

Dr. Vincent Fernandes {Alumnus, B. Tech. (Elec. Engg.), 1975} has donated \$ 244058 on October 30, 2001 to the IIT Bombay Heritage Fund to promote academic excellence in Computer Science and Engineering. Mr. Fernandes had made a pioneering move – by expressing a desire that the proceeds of his donation be utilized towards instituting a Chair Assistant Professorship for a young Faculty member in the Computer Science and Engineering Department, in the name of Prof. J.R. Isaac (his teacher and mentor who superannuated from this Institute in April 1990), and starting two Fellowships for M. Tech. students in the names of Dr. George B. Fernandes and Dr. Winifred A. Fernandes.

II. Institution of Fellowships -

A. Vijay Vashee Fellowship

(c) Vijay and Sita Vashee Chair Professor:

Prof. Krithivasan Ramamritham has been appointed the Vijay and Sita Vashee Chair Professor from July 2003.

(d) Fellowships from Vijay Vashee's Endowment:

A part of the Vijay Vashee Endowment has been utilized to support three fellowships for post graduate students of CSE department –

1. Ajay Vashee Fellowship for a PG student, if any, registered for a project with Vijay & Sita Vashee Chair Professor or to any eligible student in CSE department. This fellowship is awarded at the rate of Rs. 1000 per month.
2. Nilesh Vashee Fellowship for a PG student studying in CSE department. This Fellowship is awarded at the rate of Rs. 1000 per month.
3. Thomas Dooie Fellowship, Class of 1974, for a Dual Degree student in CSE department.

(e) *Research Excellence Awards:*

A part of the Endowment from Dr. Vijay Vashee Fellowship is being used to set up Annual Excellence Awards for Outstanding Research performed in the area of Computer Science and Engineering. No candidate has been selected so far.

B. Vincent Fernandes Fellowship

1. *James R. Isaac Assistant Professor Chair*: This Chair not occupied by anyone.

2. Fellowships from Vincent Fernandes Endowment:

Two Fellowships for Dual Degree students have been instituted from the funds donated by Dr. Vincent Fernandes. The details are given below:

- Dr. George B. Fernandes Fellowship for a DD student, if any, registered for a project with James R. Isaac Chair Assistant Professor, or to any eligible student in CSE department.
- Dr. Winifred A. Fernandes Fellowship for an eligible female DD student in CSE department, if one exists or any eligible student in CSE department.

III Financial Statement

- Vijay Vashee Fellowship

1. Donation received through IITBHF

Donor	Date of receipt	Amount US \$	Amount Rs.
Vijay Vashee	8th March, 2002	300,000	1,45,98,000
Vijay Vashee	17th Sept., 2002	59,973	28,84,088
Total		3,59,973	1,74,82,088

2. Details of the Donation received

Donor	Purpose	Amount (in Rs.)
Vijay Vashee	Endowment for Vijay and Sita Vashee Chair	85,15,500
Vijay Vashee	Endowment for two Ajay Vashee Fellowships	46,22,700
Vijay Vashee	Endowment for Thomas Dooie Fellowship for Dual Degree student	19,39,399
Vijay Vashee	Endowment for Vijay Vashee Excellence Awards	24,04,489

3. Expenditure Statement

Endowment	Name of the recipient	Amount	Period	Expenditure (in Rs.)
Ajay Vashee Fellowship	Vibhooti Varma	Rs. 1000 per month	Jan 07 – May 07	5,000
Nilesh Vashee Fellowship	1. Bhavana Bharat Dalvi	Rs.1,000 Per month	January 2006 to June 2007	18,000
	2. Vinay Deshpande	-do-	Jan 07 – June08	18,000
	3. Manish Aggarwal	-do-	Jan 08 – June08	6,000
	4. Ashish H. Chiplunkar	-do-	Jan 08 – June08	6,000
Thomas Dooie class of 1974 Fellowship	Juvekar Sudeep Dilip	Rs.1,000 Per month	January 2006 to June 2007	18,000
Total				71,000

- *Vincent Fernandes Fellowship –*

1. Donation received through IITBHF

Donor	Purpose	Date of receipt	Amount US \$	Amount (in Rs.)
Vincent Fernandez	Endowment for Prof. J. R. Isaac Chair Asst. Prof. and 2 fellowships	30th October, 2001	244,058.60	1,16,73,348

**ENDOWMENT FOR CHAIRS AND FELLOWSHIPS IN THE DEPARTMENT OF
COMPUTER SCIENCES AND ENGINEERING(Ramrao Nilekani, Major Bhagat Singh Rekhi)**

I. Introduction:

3. Ramarao Nilekani Endowment:

This Fellowship is paid to M.Tech. students at the rate of Rs. 5000 per month.

4. Ms. Raj Kaur Rekhi M. Tech. Endowment Fund:

This Fund was instituted to support students pursuing their M.Tech. program in the Kanwal Rekhi School of Information Technology (KReSIT), now renamed as the Department of Computer Sciences and Engineering. A stipend of Rs. 5000 per month for 24 months and Tuition Fee of Rs. 21,050 per semester per student is supported from this Endowment.

5. Major Bhagat Singh Rekhi Endowment Fund:

i). *Mr. Bhagat Singh Rekhi Endowment for PhD Fellowship:*

Under this Fellowship, a stipend of Rs. 10000 per month and Tuition Fee is paid to the students. Mr. Ashish Tendulkar, Mr. Nitin Salodkar and Mr. Sameer Sahasrabuddhe were supported with this Fellowship. Ashish & Nitin were selected for Infosys Fellowship and were transferred to the same.

ii). *Mr. Bhagat Singh Rekhi Chair Endowment:*

The Chair is yet to be appointed. Based on discussions with Mr. Kanwal Rekhi, the funds are being utilized, until the Chair can be filled, to host distinguished visitors to the Department.

II. Scholarships Awarded Program Wise:

1. M.Tech. Program:

List of II year (2004-06 batch) and first year M. Tech. students (2005-07 batch - TA category) paid the Alumni Donation Fellowships from July 2005 to June 2006 @ Rs. 5000 per month

S. No.	Roll No.	Name	Name of the Fellowship
1.	04329001	Abhishek Seth	Ramarao Nilekani Endowment
2.	04329002	Vallieswaran V	Ramarao Nilekani Endowment
3.	04329003	Anirudha Bodhankar	Ramarao Nilekani Endowment
4.	04329004	Anshuman Tiwari	Ramarao Nilekani Endowment
5	04329005	Indukuri E Y Kishore Verma	Ramarao Nilekani Endowment
6	04329008	Ms Kalekar Prajakta S	Ramarao Nilekani Endowment
7	04329009	Pollakattu Sarat Chandra	Ramarao Nilekani Endowment
8	04329010	Utkarsh Jain	Ramarao Nilekani Endowment

S. No.	Roll No.	Name	Name of the Fellowship
9	43290011	Aggarwal Sunny	Ramarao Nilekani Endowment
10	04329012	Rajat Goel	Ramarao Nilekani Endowment
11	04329013	Mayank Mishra	Ramarao Nilekani Endowment
12.	04329014	Sandesh D Tawari	Ramarao Nilekani Endowment
13.	04329015	Khurange Ashish Govind	Ramarao Nilekani Endowment
14.	04329016	Tejaswi N	Ramarao Nilekani Endowment
15.	04329017	Agrawal Amar Pyarelal	Ramarao Nilekani Endowment
16.	04329018	Rajveer Singh	Ramarao Nilekani Endowment
17.	04329019	Patil Laxmikant S	Ramarao Nilekani Endowment
18.	04329020	Ms Deepti Agrawal	Ramarao Nilekani Endowment
19.	04329021	Satyabrata Pradhan	Ramarao Nilekani Endowment
20.	04329022	Ms Anusha Veda	Ramarao Nilekani Endowment
21.	04329023	Naval Bhandari	Ramarao Nilekani Endowment
22.	04329024	Kaushal Mittal	Ramarao Nilekani Endowment
23.	05329006	Sagar Randive	Ramarao Nilekani Endowment
24.	05329007	Ajay Nalawade	Ramarao Nilekani Endowment
25.	05329008	Sudheer Keshav	Ramarao Nilekani Endowment
26.	05329009	Setu Gupta	Ramarao Nilekani Endowment
27.	05329010	Venu Gopal	Ramarao Nilekani Endowment
28.	05329011	Priyesh Wadhva	Ramarao Nilekani Endowment
29.	05329012	Unmesh Deshmukh	Ramarao Nilekani Endowment
30.	05329014	Kamlesh Laddhad	Ramarao Nilekani Endowment
31.	05329015	Deepak Garg	Ramarao Nilekani Endowment
32.	05329016	Kushal Kumaran	Ramarao Nilekani Endowment
33.	05329017	Ms. Esha Palta	Ramarao Nilekani Endowment
34.	05329018	Shravan Kumar	Ramarao Nilekani Endowment
35.	05329019	Amol Dharap	Ramarao Nilekani Endowment
36.	05329020	Mukesh Rawat	Ramarao Nilekani Endowment
37.	05329021	B. Karthik	Ramarao Nilekani Endowment
38.	05329022	Abhishek Agarwal	Ramarao Nilekani Endowment
39.	05329023	Aditya Mishra	Ramarao Nilekani Endowment
40.	05329024	Anuj Tripathi	Ramarao Nilekani Endowment
41.	05329025	Sameer Kurkure	Ramarao Nilekani Endowment
42.	05329029	Paresh Bafna	Raj Kaur Rekhi M.Tech. Endowment
43.	05329036	Rahul Singhai	Raj Kaur Rekhi M.Tech. Endowment

S. No.	Roll No.	Name	Name of the Fellowship
44.	05329037	Saurabh Singh	Raj Kaur Rekhi M.Tech. Endowment
45.	05329039	Dhawale Ganesh	Raj Kaur Rekhi M.Tech. Endowment

List of first year M. Tech. students (2005 - 07 batch - TA category) paid the Ramarao Nilekani Endowment Fellowships@ Rs. 5000 per month from July 2006 to June 2007

S. No.	Roll No.	Name of Student
1	05329006	Sagar Randive
2.	05329007	Ajay Nalawade
3.	05329008	Sudheer Keshav
4.	05329009	Setu Gupta
5	05329010	Venu Gopal
6	05329011	Priyesh Wadhva
7	05329012	Unmesh Deshmukh
8	05329014	Kamlesh Laddhad
9	05329015	Deepak Garg
10	05329016	Kushal Kumaran
11	05329017	Ms. Esha Palta
12.	05329018	Shravan Kumar
13.	05329019	Amol Dharap
14.	05329020	Mukesh Rawat
15.	05329021	B. Karthik
16.	05329022	Abhishek Agarwal
17.	05329023	Aditya Mishra
18.	05329024	Anuj Tripathi
19.	05329025	Sameer Kurkure

List of M. Tech. students (2005 – 08 batch - RA category) paid the Ramarao Nilekani Endowment Fellowships@ Rs. 7000 per month from July 2007 to 20 July 2008

S. No.	Roll No.	Name of the Student
1	05329R01	Ashish Lahane
2	05329R05	Santosh Duvvuru
3	05329R10	Inakota Rajesh

S. No.	Roll No.	Name of the Student
4	05329R04	Janak Chandrana
5	05329R08	Mandalapu Ranjith
6	05329R07	Nandan Marathe

List of M. Tech. students (2006 – 09 batch - RA category) paid the Ramarao Nilekani Endowment Fellowships@ Rs. 6500 per month from July 2007 to June 2008 and Fellowships @ Rs. 7000 per month from 1/7/2008 to 20/07/09

S. No.	Roll No.	Name of the Student
1	6329904	Dara Nithin Kumar
2	6329906	Sangodkar Amit
3	6329901	Kalgi Srinivasa

2. Ph.D. Program:

List of Ph.D. students paid the Endowment Fellowships@ Rs. 10000 per month

S. No.	Roll No.	Name	Name of the Fellowship	Period of Fellowship
1.	01429001	Randip Singh	Ramarao Nilekani Endowment	
2.	01429002	Srinath Perur	Ramarao Nilekani Endowment	TAship paid from Jul 06 to Sep 06
3.	99429001	Raghu Rangarajan	Ramarao Nilekani Endowment	
4.	00429004	Shantanu Inamdar	Ramarao Nilekani Endowment	TAship paid from Oct 05 to 15 th JAN 06
5.	02429002	Sameer Sahasrabuddhe	Maj. Bhagat Singh Rekhi Endowment	TAship paid upto 13.01.2007

III. Financial Statement:

i). Donations received from Mr. Kanwal Rekhi through IITBHF

Particulars	Date of receipt	Amount US \$	Amount Rs.
Mjr.Bhagat Singh Chair	2nd December 2000	130,468	60,81,538
Mjr.Bhagat Singh Ph.D Fellowship	2nd December 2000	214,532	1,00,00,000
Raj Kaur Rekhi M.Tech.Scholarships	2nd December 2000	100,000	46,61,315
Total		445,000	2,07,42,853

ii). Details of Expenditure for the year 2007

S.No.	Name of Endowment	Amount per month	No. of Students	Period	Expenditure (Rs.)
1.	Ramarao Nilekani	5000	19	July 06 – June 07 (12 months)	11,40,000
2.	Ramarao Nilekani	7000	6	July 07 – June 08 (12 months)	5,04,000
3.	Ramarao Nilekani	6500	3	July 07 – June 08 (12 months)	2,34,000
	Total				18,78,000

iii). Utilization of Funds

Name of Fellowship	Amount (Rs.)
Mjr.Bhagat Singh Chair	0.00
Mjr.Bhagat Singh Ph.D Fellowship	1,80,000
Raj Kaur Rekhi M.Tech.Scholarships	3,02,950
Total	4,82,9500

The Endowment is being invested in a Fixed Deposit and the interest is being transferred to meet the expenditure. The balance interest is being reinvested.

ENDOWMENT FOR SHAILESH J. MEHTA SCHOOL OF MANAGEMENT

I. Introduction

A total amount of US \$ 1476224 (Rs. 6,89,99,968 or approximately Rs. 69 million) has been received from Dr. Shailesh J. Mehta {Alumnus, B. Tech. (Mech. Engg.) 1971} towards creating Endowment funds at IIT Bombay. An amount of approximately Rs. 25 million has already been spent as part contribution towards the creation of a modern residential facility for the Continuing Education Program (CEP). The remaining amount of Rs. 44 million has been utilized to create six Endowments for different purposes. The following table describes the six Endowments created and the allocation corpus of each.

Endowments and Allocation corpus

Description of endowment fund	Corpus allocation (Rs.)
Best teacher award in management	1,00,000.00
Scholarships (PhD and Master of Management)	1,32,00,000.00
Promotional activities including distinguished lectures	20,00,000.00
Development: School development and faculty development, including faculty exchange	1,87,00,000.00
Shailesh Mehta Chair	70,00,000.00
Student activities	30,00,000.00
Total	4,40,00,000.00

Every year, interest income from the corpus associated with different funds is used to support the activities of the School. The table 2 provides information regarding the expenditure incurred for the year 2006.

II. Scholarships Awarded:

List of various scholarships awarded to Master of Management students from four Endowment Funds –

S. No.	Name of Endowment	Program of Study	Rate of Scholarship
1.	SJMSoM Endowment	M. Mgt.	Rs. 2000 per month
2.	Hindi Vidya Bhawan	M. Mgt.	Rs. 1500 per month
3.	ICICI	M. Mgt.	Rs. 1000 per month
4.	Hindustan Lever Ltd.	M. Mgt.	Rs. 1000 per month

List of M. Mgt. 1st year students (2005 – 2007 batch) paid Fellowships for the period July – Dec. 2005

S.No	Roll.No	Name	Name of the Scholarship	Amount per month
1	05927803	Amrutaunshu Narayan Nerurkar	SJMSOM Endowment	Rs.2000/-
2	05927860	Sujay Kumar V.	SJMSOM Endowment	Rs.2000/-
3	05927827	Rahul Sanjay Tamaskar	SJMSOM Endowment	Rs.2000/-
4	05927833	Kuldeep Gangwar	SJMSOM Endowment	Rs.2000/-
5	05927807	Dheeraj Kumar Ahuja	SJMSOM Endowment	Rs.2000/-
6	05927822	Gyanendra Narayan	SJMSOM Endowment	Rs.2000/-
7	05927810	Ashok Narayanan	SJMSOM Endowment	Rs.2000/-
8	05927831	Nikhil Kumar Verma	SJMSOM Endowment	Rs.2000/-
9	05927823	Mohit Agarwal	SJMSOM Endowment	Rs.2000/-
10	05927817	Pradeep Sobhraj Ahuja	SJMSOM Endowment	Rs.2000/-
11	05927825	Amitava Deb	Hindi Vidya Bhawan	Rs.1500/-
12	05927845	Smitha Rao C.V.	Hindi Vidya Bhawan	Rs.1500/-
13	05927801	Mittal Gaurav	Hindi Vidya Bhawan	Rs.1500/-
14	05927864	Patil Girish Shivaji	Hindi Vidya Bhawan	Rs.1500/-
15	05927835	Divya Chauhan	Hindi Vidya Bhawan	Rs.1500/-
16	05927821	Vidisha Suman	ICICI	Rs.1000/-
17	05927865	Kundaje Kunal Shivanand	ICICI	Rs.1000/-
18	05927818	Keshav Sreedharan	ICICI	Rs.1000/-
19	05927866	Krishnan Aravindan	Hindustan Lever Ltd.	Rs.1000/-
20	05927853	Arun V.	Hindustan Lever Ltd.	Rs.1000/-

List of M. Mgt.1st year students (2005 – 2007 batch) paid Fellowships for the period Jan – June 2006

S. No.	Roll.No	Name	Name of the Scholarship	Amount per month
1	05927845	Smitha Rao C.V.	SJMSOM Endowment	Rs.2000/-
2	05927803	Amrutaunshu Narayan Nerurkar	SJMSOM Endowment	Rs.2000/-
3	05927833	Kuldeep Gangwar	SJMSOM Endowment	Rs.2000/-
4	05927860	Sujay Kumar V.	SJMSOM Endowment	Rs.2000/-
5	05927847	P. H. Karthik	SJMSOM Endowment	Rs.2000/-
6	05927821	Vidisha Suman	SJMSOM Endowment	Rs.2000/-
7	05927864	Patil Girish Shivaji	SJMSOM Endowment	Rs.2000/-
8	05927822	Gyanendra Narayan	SJMSOM Endowment	Rs.2000/-
9	05927807	Dheeraj Kumar	SJMSOM Endowment	Rs.2000/-

S. No.	Roll.No	Name	Name of the Scholarship	Amount per month
		Ahuja		
10	05927827	Rahul Sanjay Tamaskar	SJMSOM Endowment	Rs.2000/-
11	05927831	Nikhil Kumar Verma	Hindi Vidya Bhawan	Rs.1500/-
12	05927801	Mittal Gaurav	Hindi Vidya Bhawan	Rs.1500/-
13	05927817	Pradeep Sobhraj Ahuja	Hindi Vidya Bhawan	Rs.1500/-
14	05927843	Nikita Lunawat	Hindi Vidya Bhawan	Rs.1500/-
15	05927814	Abhishek Mani	Hindi Vidya Bhawan	Rs.1500/-
16	05927806	Vineet Shukla	Hindi Vidya Bhawan	Rs.1250/-
17	05927810	Ashok Narayanan	ICICI	Rs.1250/-
18	05927865	Kundaje Kunal Shivanand	ICICI	Rs.1000/-
19	05927802	Mandar Suhas Joshi	ICICI	Rs.1000/-
20	05927840	Vaishnav Bansal	Hindustan Lever Ltd.	Rs.1000/-
21	05927853	Arun V.	Hindustan Lever Ltd.	Rs.1000/-

List of M. Mgt.2nd year students (2004 – 2006 batch) paid Fellowships for the period Jan – June 2006

Sr. No.	Roll.No	Name	Name of the Scholarship	Amount per month
1	04927803	Arora Nitin	SJMSOM Endowment	Rs.2000/-
2	04927852	Singla Aman Sandeep	SJMSOM Endowment	Rs.2000/-
3	04927853	Sodhi Manandeep Singh	SJMSOM Endowment	Rs.2000/-
4	04927823	Krishnan Ajay	SJMSOM Endowment	Rs.2000/-
5	04927802	Akshay Agarwal	SJMSOM Endowment	Rs.2000/-
6	04927860	Tirumalaseti Krishna Prashanth	SJMSOM Endowment	Rs.2000/-
7	04927832	Pai Abhijit Ananda	SJMSOM Endowment	Rs.2000/-
8	04927850	Sharma Surya Kiran	SJMSOM Endowment	Rs.2000/-
9	04927842	Sabharwal Ujjwal	SJMSOM Endowment	Rs.2000/-
10	04927856	Srivastava Puneet	SJMSOM Endowment	Rs.2000/-
11	04927824	Kulkarni Sourabh Chandrakant	Hindi Vidya Bhawan	Rs.1500/-
12	04927866	Nandi Swathi	Hindi Vidya Bhawan	Rs.1500/-
13	04927807	Dahiya Pranav	Hindi Vidya Bhawan	Rs.1500/-
14	04927801	Agarwal Ajay	Hindi Vidya Bhawan	Rs.1500/-

Sr. No.	Roll.No	Name	Name of the Scholarship	Amount per month
15	04927863	Trehan Prateek Singh	Hindi Vidya Bhawan	Rs.1500/-
16	04927848	Sharma Abhishek	ICICI	Rs.1000/-
17	04927817	Issrani Poonam P	ICICI	Rs.1000/-
18	04927865	Gudla Akhila	ICICI	Rs.1000/-
19	04927829	Mittal Deepak	Hindustan Lever Ltd.	Rs.1000/-
20	04927864	Batagurki Anand Vasant	Hindustan Lever Ltd.	Rs.1000/-

List of M. Mgt.1st year students (2006 – 2008 batch) paid Fellowships for the period July – Dec 2006

S. No.	Roll.No	Name	Name of the Scholarship	Amount per month
1	06927842	Pulkit Bansal	SJMSOM Endowment	Rs.2000/-
2	06927822	S.K. Teja Kappagantula	SJMSOM Endowment	Rs.2000/-
3	06927807	Divya John	SJMSOM Endowment	Rs.2000/-
4	06927824	Nilufer Ashok Jain	SJMSOM Endowment	Rs.2000/-
5	06927803	Hemant S. Kane	SJMSOM Endowment	Rs.2000/-
6	06927811	N. Ramesh	SJMSOM Endowment	Rs.2000/-
7	06927836	Moiz A Saif	SJMSOM Endowment	Rs.2000/-
8	06927861	Puneet Kumar	SJMSOM Endowment	Rs.2000/-
9	06927805	Pavan Kumar Thatha	SJMSOM Endowment	Rs.1500/-
10	06927821	Shipra	SJMSOM Endowment	Rs.1500/-
11	06927839	Rachit R. Mehrotra	Hindi Vidya Bhawan	Rs.1500/-
12	06927801	Saket Tandon	Hindi Vidya Bhawan	Rs.1500/-
13	06927809	Aniruddha B.aradhya	Hindi Vidya Bhawan	Rs.1500/-
14	06927819	Uma Nathany	Hindi Vidya Bhawan	Rs.1500/-
15	06927835	Shreyas V. Navare	Hindi Vidya Bhawan	Rs.1500/-
16	06927816	Yuvnish Dhamija	Hindi Vidya Bhawan	Rs.1500/-
17	06927815	Saravleen Singh	ICICI	Rs.1000/-
18	06927834	Nilay Ritwik	ICICI	Rs.1000/-

S. No.	Roll.No	Name	Name of the Scholarship	Amount per month
19	06927857	Mohit Bhatia	ICICI	Rs.1000/-
20	06927823	Diwakar S. Yasarapu	Hindustan Lever Ltd.	Rs.1000/-
21	06927856	Bhupendra K.jagdev	Hindustan Lever Ltd.	Rs.1000/-

List of M. Mgt.2nd year students (2005 – 2007 batch) paid Fellowships for the period July – Dec 2006

S. No.	Roll.No	Name	Name of the Scholarship	Amount per month
1	05927803	Amrutaunshu Narayan Nerurkar	SJMSOM Endowment	Rs.2000/-
2	05927860	Sujay Kumar V.	SJMSOM Endowment	Rs.2000/-
3	05927827	Rahul Sanjay Tamaskar	SJMSOM Endowment	Rs.2000/-
4	05927833	Kuldeep Gangwar	SJMSOM Endowment	Rs.2000/-
5	05927807	Dheeraj Kumar Ahuja	SJMSOM Endowment	Rs.2000/-
6	05927822	Gyanendra Narayan	SJMSOM Endowment	Rs.2000/-
7	05927810	Ashok Narayanan	SJMSOM Endowment	Rs.2000/-
8	05927831	Nikhil Kumar Verma	SJMSOM Endowment	Rs.2000/-
9	05927823	Mohit Agarwal	SJMSOM Endowment	Rs.2000/-
10	05927817	Pradeep Sobhraj Ahuja	SJMSOM Endowment	Rs.2000/-
11	05927825	Amitava Deb	Hindi Vidya Bhawan	Rs.1500/-
12	05927845	Smitha Rao C.V.	Hindi Vidya Bhawan	Rs.1500/-
13	05927801	Mittal Gaurav	Hindi Vidya Bhawan	Rs.1500/-
14	05927864	Patil Girish Shivaji	Hindi Vidya Bhawan	Rs.1500/-
15	05927835	Divya Chauhan	Hindi Vidya Bhawan	Rs.1500/-
16	05927821	Vidisha Suman	ICICI	Rs.1000/-
17	05927865	Kundaje Kunal Shivanand	ICICI	Rs.1000/-
18	05927818	Keshav Sreedharan	ICICI	Rs.1000/-
19	05927866	Krishnan Aravindan	Hindustan Lever Ltd.	Rs.1000/-
20	05927853	Arun V.	Hindustan Lever Ltd.	Rs.1000/-

List of M. Mgt. 1st year students (2007 – 2009 batch) paid Fellowships for the period July – Dec 2007

S. No.	Roll No.	Name of Student	SPI	CPI	Name of the Scholarship	Amount per month
1	07927823	Gandhi Jaimin Suresh	8.90	8.90	SJMSOM Endowment	Rs.2500/-
2	07927827	Kshitij Dilip Varma	8.80	8.80	SJMSOM Endowment	Rs.2500/
3	07927813	Abhinav Patwa	8.70	8.70	SJMSOM Endowment	Rs.2500/
4	07927879	Abhishek Shukla	8.70	8.70	SJMSOM Endowment	Rs.2500/
5	07927806	Nachiket Padwal	8.60	8.60	SJMSOM Endowment	Rs.2500/
6	07927868	Girish Pandey	8.60	8.60	SJMSOM Endowment	Rs.2500/
7	07927865	Arijit Majumdare	8.50	8.50	SJMSOM Endowment	Rs.2500/
8	07927811	Sandeep Mathew Olickal	8.40	8.40	Hindi Vidya Bhawan	Rs.1500/
9	07927817	Lakshmi Priya A	8.40	8.40	Hindi Vidya Bhawan	Rs.1500/
10	07927833	Suneet Anil Deshmukh	8.40	8.40	Hindi Vidya Bhawan	Rs.1500/
11	07927845	Vandana Priya Maturu	8.40	8.40	Hindi Vidya Bhawan	Rs.1500/
12	07927804	Arpit Agarwal	8.30	8.30	Hindi Vidya Bhawan	Rs.1500/
13	07927816	Ramesh Thamotharan	8.30	8.30	Hindi Vidya Bhawan	Rs.1500/
14	07927828	Prasanth Narayanan	8.20	8.20	ICICI	Rs.1000/
15	07927830	Anup. S	8.20	8.20	ICICI	Rs.1000/
16	07927809	Anupam Shrotary	8.10	8.10	ICICI	Rs.1000/
17	07927850	Sundareswaran Krishnan	8.10	8.10	ICICI	Rs.1000/
18	07927871	Akash Mittal	8.10	8.10	ICICI	Rs.1000/
19	07927878	Bharatula Krishna Kishore	8.10	8.10	ICICI	Rs.1000/
20	07927815	Vikram Singh	8.00	8.00	Hindustan Lever Ltd.	Rs.1000/-
21	07927826	Anoop Kulkarni	8.00	8.00	Hindustan Lever Ltd.	Rs.1000/-
22	07927838	Varghese Eappen	8.00	8.00	Hindustan Lever Ltd.	Rs.1000/-

List of M. Mgt.2nd year students (2006 – 2008 batch) paid Fellowships for the period July – Dec 2007

S. No.	Roll	Name	2yr-1sem/SPI	1yr-2sem/CPI	Name of scholarship	Amount (Rs.)
1	06927834	Nilay Ritwik	9.30	8.65	SJMSOM Endowment	Rs.3000/-
2	06927801	Saket Tandon	9.11	8.15	SJMSOM Endowment	Rs.3000/-
3	06927822	S.K. Teja Kappagantula	9.10	9.10	SJMSOM Endowment	Rs.3000/-
4	06927821	Shipra	8.89	8.25	SJMSOM Endowment	Rs.2500/-
5	06927807	Divya John	8.79	8.85	SJMSOM Endowment	Rs.2500/-
6	06927861	Puneet Kumar	8.58	8.70	SJMSOM Endowment	Rs.2500/-
7	06927839	Rachit R. Mehrotra	8.58	8.55	Hindi Vidya Bhawan + SJMSOM Endowment	Rs.2500/- (1500+1000)
8	06927811	N. Ramesh	8.58	8.25	Hindi Vidya Bhawan + SJMSOM Endowment	Rs.2500/- (1500+1000)
9	06927842	Pulkit Bansal	8.53	9.10	Hindi Vidya Bhawan + SJMSOM Endowment	Rs.2500/- (1500+1000)
10	06927814	Gaurav Sinha	8.37	8.30	Hindi Vidya Bhawan	Rs.1500/-
11	06927836	Moiz A Saif	8.10	8.55	SJMSOM Endowment	Rs.1000/-
12	06927805	Pavan Kumar Thatha	8.10	8.30	Hindustan Lever Ltd.	Rs.1000/-
13	06927809	Aniruddha B.aradhya	8.00	8.05	Hindustan Lever Ltd.	Rs.1000/-

List of PhD. students awarded the Shailesh J. Mehta Endowment Fellowships

S. No.	Roll.No	Name	Name of Scholarship	Amount per month	Period
1	03427001	Shalini Pathak	SJMSOM Endowment	Rs.10000/-	21.07.04 to 20.07.07
2	03427801	Leena Srivastava	SJMSOM Endowment	Rs.10000/-	01.07.04 to 30.06.07
3	04427002	Sanjay Kumar Thakur	SJMSOM Endowment	Rs.10000/-	01.04.06 to date
4	04427804	Vandana Sharma	SJMSOM Endowment	Rs.10000/-	23.07.05 to 01.08.07
5	05427003	Upasana Aggarwal	SJMSOM Endowment	Rs.10000/-	20.07.06 to 20.12.06

Details of Expenditure for the year 2007

S.No.	Name of Endowment	Amount per month	No. of Students	Period	Expenditure (Rs.)
1.	SJMSoM Endowment	2500	7	July – Dec 07 (6 months)	1,05,000
2.	SJMSoM Endowment	3000	3	July – Dec 07 (6 months)	54,000
3.	SJMSoM Endowment	2500	3	July – Dec 07 (6 months)	45,000
4.	SJMSoM Endowment	1000	4	July – Dec 07 (6 months)	24,000
	Total				2,28,000

PROF. S. P. SUKHATME ENDOWMENT FUND

- Introduction

IIT Bombay is presently celebrating its Golden Jubilee from September 5, 2007 to March 10, 2009. In the Golden Jubilee year of this august Institution, it seems reasonable to record the important events and landmarks in the history of the Institute. The documentation of the Institute's history in a systematic and proper fashion and preserving the same digitally is very significant. The matter was discussed during the PAN – IIT Conference 2006 and some concepts were crystallized.

During the Alumni Day in December 1999, some Alumni decided to institute an Endowment Fund in the name of Prof. S. P. Sukhatme, who has contributed immensely for the growth of the Institute in his capacity as Professor of Mechanical Engineering Department and as the Director of IIT Bombay from 1995 – 2000. Prof. S. P. Sukhatme had expressed his desire to utilize this Endowment for the archival purpose of IIT Bombay.

Prof. Rohit Manchanda was appointed to write the History Book of IIT Bombay which is now ready for print. The publication of this book marks an important event in the ongoing Golden Jubilee celebrations of the Institute. The Director approved a Committee to guide and supervise work on the project. The Committee members associated with the Project are as follows --

Sr No	Name	Designation
1	Prof. S.P Sukhatme	Former Director (1995-2000)
2	Prof. Devang Khakhar	Dean Faculty (Convener of IITB History Book)
3	Prof. H Narayanan	Prof in Electrical Engg. Dept
4	Prof. A.Q Contractor	Chemistry Dept.(HOD)
5	Mr. Parag Rele	Alumnus
6	Prof. Rohit Manchanda	Author of the History Book
7	Mr. Milind Gokhale	Officer on Special Duty in Dean RM office

Approximately 25 meetings of the Committee were held in the year 2007. The names of the research associates who have contributed to this project are as follows –

- Thareswari
- Damayanti Bhattacharya
- Swagatika Mishra

The specific tasks which have been undertaken as part of this project are as follows --

- Transcription of several interviews like Prof. Sukhatme, Prof. Narayanmurthy, Prof. Swamidasan, Prof. Bhatt and Deshpande
- Summary work of BoG Minutes
- Summary work of Annual Reports
- Collection several datas from various places like Director Record Room(DRR), Registrar office, Estate Office
- Organisation of meetings and preparation of digests.
- Conducting interviews of Non- Teaching staffs.

For the purpose of collecting material for the project, numerous Professors, Alumni and non Teaching staff were interviewed. The people who transcribed these interviews are Madhuri, Meena, Renuka (PRO Office), Vandana and Swagatika (Dean Faculty Office), Sanmati (Campus Resident). The interviews were conducted in both audio and video format, through C-DEEP and using voice recorder as and when the situation permitted. Audio interviews were transcribed by Bidhan Dash (Research Associate in School of Management).

The names and designations of persons who were interviewed are as follows –

Sr No	Name of the Interviewee	Designation/Department
1	Prof. Ashok Misra	Director & Professor (Chemical Engg. Dept)
2	Prof. Sukhatme	Former Director & Retd. Professor (Mechanical Engg Dept)
3	Prof. D.B Phatak	Convener of Golden Jubilee/ Professor in Dept of Computer Science
4	Prof. Devang Khakhar	Convener of IITB History Book/ Prof. in Chemical Engg. Dept/ Alumnus
5	Prof. Zuzer Vasi	Deputy Director & Prof. in Electrical Engg. Dept
6	Mrs. Aruna Dixit	Former PRO
7	Prof. Narayan Murthy	Former Dean R&D, Chemical Engg. Dept, Retired
8	Prof. Dipen Ghosh	Former Deputy Director, Professor in Dept of Physics
9	Prof. Udaya Gaitonde	Mechanical Engg. Dept/ Alumnus
10	Prof. K.P Madhavan	Former Dean R&D, Chemical Engg Dept (Retired)
11	Prof. M.V Hariharan	Former Dean R&D, Former Dean AP/ Professor in Electrical engg. Dept
12	Prof. Swamidasan	Prof. (Retd.) Dept. of Humanities and Social Sciences
13	Prof. Anurag Mehera	Chemical Engg. Dept. (HOD)
14	Mr. D.K Ghosh	Former Registrar
15	Prof. K.C Khilar	Former Dean R&D/ Professor in Chemical Engineering
16	Prof. Kirti Ramamritham	Dean R&D/ Dept. of Computer Science
17	Mr. Parag Rele	Alumnus
18	Mr. Sarad Saraf	Alumnus
19	Prof. H. Narayanan	Electrical Engg. Dept/ Alumnus
20	Prof. S.G Kane	Chemical Engg. Dept
21	Mr. Sailesh Gandhi	Alumnus
22	Prof. Kudchadkar	Former Dean R&D/ Chemical Engg. Dept
23	Mr. Sandip Pandya	Alumnus
24	Prof. Sudhakar	Aerospace Engg. Dept
25	Prof. Bhatt	Chemistry Dept
26	Prof. Deshpande	Chemistry Dept

Audio Interviews Of Non- teaching Staffs		
1	Mr.Kasbekar	Electrical Engg. Dept
2	Mr. V.K Tondon	Electrical Engg. Dept
3	Mr. Vaishampayan	Electrical Engg. Dept
4	Mr. S Jayachandran	Telecom
5	Mr. Ghosalkar	Mechanical Engg. Dept

- Details of Funds Received

S.No.	Donor	Amount USD	Amount Rs.
1.	Kanwal Rekhi	55,000	25,63,724
2.	Alumni in India	0.00	6,43,500
	Total	55,000	31,98,224

The amount was invested in a Fixed Deposit and the interest was utilized.

Some photos of the Institute are presented in the following pages. The history book is being released during Golden Jubilee year celebration. Alumni are requested to read and enjoy the History Book of their Alma Mater.



Main Building



Hostel 6, 1966



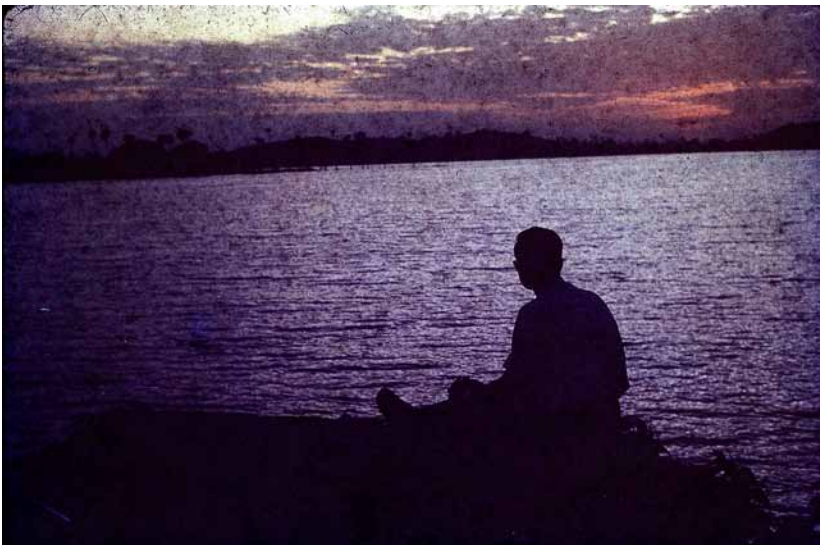
Library at Night



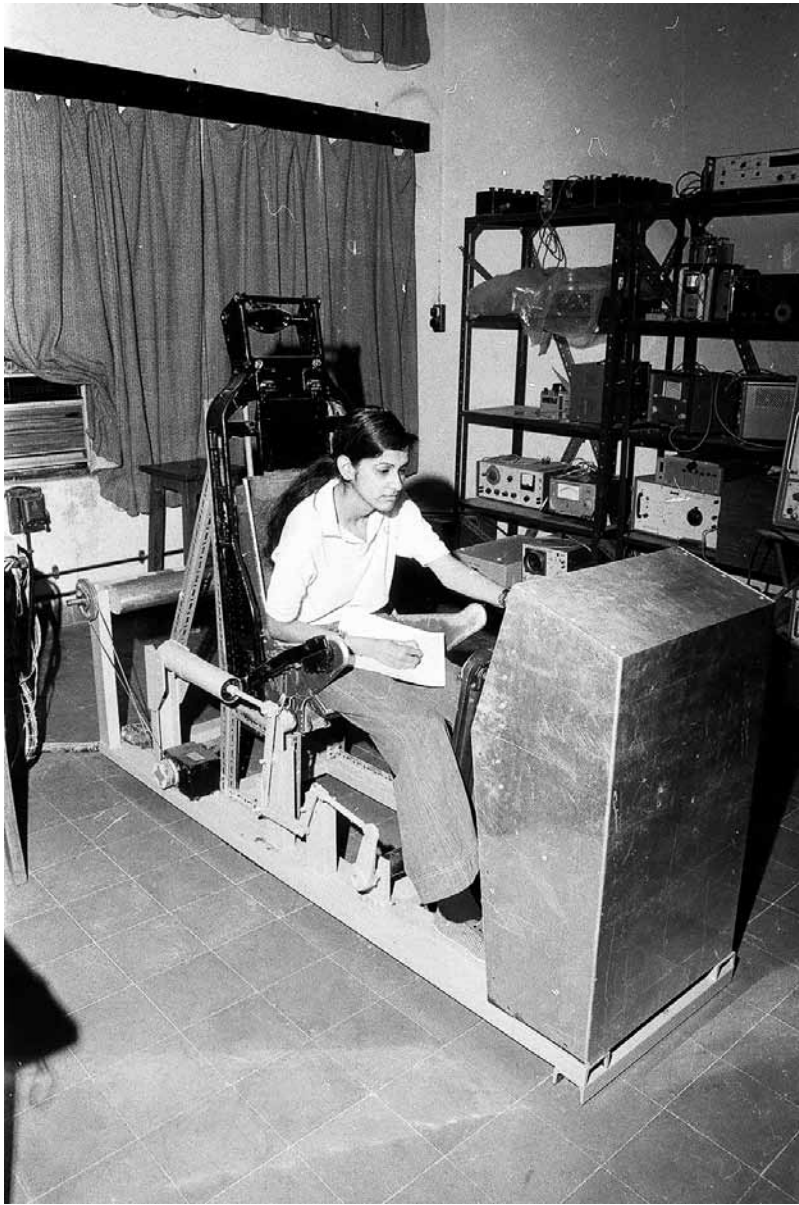
A view of Hostels 1,2,3



Brainstorm for Mood Indigo



Enjoying Powai Lake



A girl student is working in Laboratory

PROJECT - CONVENTION CENTER

1. Introduction

Our distinguished alumnus Victor Menezes has pledged \$ 3.0 Millions for construction of Convention Centre that shall be named 'Victor Menezes Convention Centre'. Construction of the project was started on July 18, 2007. The Convention Center will house one Lecture Hall of a capacity of 300 people, 6 Lecture Halls of capacity of 150 and 10 Lecture Halls of capacity of 40 people. The Convention Centre will be fully equipped with modern amenities including the supporting facilities such as VIP Lounge, Conference Hall, Cafeteria, and Pantry. The building will also house some laboratories from the Civil Engineering Department that were part of the 'Civil Annexe' building which was razed to locate the Convention Center.

The Project architect is Mr. Hafeez Contractor and the contractor is Godrej & Boyce Mfg.Co.Ltd. The work order amount is Rs. 19.47 crores. As of March 31, 2008 work of around Rs. 3.00 Crores has been completed. The proposed design of the Convention Center is being presented below --

Proposed Design of Convention Center



2. Details of Funds Received

S.No.	Donor	Date	Amount (US \$)	Amount (Rs.)	Purpose/ Name of Project
1.	Victor Menezes	25-9-2007	500,000	1,96,92,416	Victor Menezes Convention Center

The expenditure so far has been incurred from Institute funds. The donation amount will be transferred to the IIT Bombay Main Account at the earliest.

Actual Work Photograph taken on March 31, 2008



STUDENTS' GYMKHANA PROJECT (Class of '75)

1. Introduction

During Silver Jubilee Reunion in December 2000, Class of 1975 had pledged its support Project – Go for Gold' for upgrading Gymkhana facilities. Bharat Desai (Syntel Inc.) pledged \$1.5 Millions for Construction of Indoor Stadium.

The construction work with regard to the Phase I of renovation of Students' Gymkhana at IIT Bombay has commenced on October 7, 2007. This shall consist of building an Indoor Stadium and an Olympic size swimming pool. The specific details are presented below:

Indoor Stadium: The multi purpose stadium can be used to host tournaments in Basketball, Volley Ball, Badminton and Table Tennis. It shall have a seating capacity for 1500 spectators. It will have a small stage and can also be used for cultural programs.

Swimming pool shall be of Olympic size (50 M X 25 M). It will have a filtration system using Ozone treatment, In addition to the main pool, a paddling pool shall be provided for children and beginners (15 M X 10 M).

The Project Architects are Shashi Prabhu & Associates and the contractor is Advance Construction Pvt..Ltd. The work order amount for this project is Rs. 17.14 crores. As of March 31, 2008 is Rs. 1.5 Crores worth of construction has been completed.

2. Details of Funds Received & Spent (Pre Operative Stage)

Particulars	Amount (Rs.)
Funds Received (from India)	19,75,000.00
Expenditure	9,14,955.00
Balance	10,60,045.00

The project expenditure, as of March 31, 2008, is about Rs. 1.5 Crores and it has been met from Institute Funds.



PROPOSED STUDENT'S GYMKHANA
AT L.I.T., POWAI, MUMBAI.

ARCHITECTS
SHASHI PRABHU AND ASSOCIATES
ARCHITECTS AND PLANNING CONSULTANTS
WANKHEDE STADIUM, CHURCHGATE, MUMBAI 400020

Proposed Indoor Stadium and Swimming Pool



Indoor Stadium balance foundation work in progress
{Actual work photograph taken on March 15, 2008}



Swimming Pool overflow channel work in progress
{Actual work photograph taken on March 15, 2008}

[Site Photographs]

ENDOWMENT - MADHURI SINHA CHAIR

The School of Biosciences and Bioengineering (incorporating what was the IDP in Biomedical Engineering) has been considerably enriched by the association of the two professors jointly appointed as the “*Madhuri Sinha Chair Professors*”. In a unique model, IIT decided to get two professors to fill one chair on a half-time basis each, so that the incumbents could still retain their clinical/surgical practice and also contribute to the academic activities of IIT Bombay’s Bioschool. They have participated in the teaching, research, and corporate activities of the Bioschool over the past years since their formal appointment. Due to reduction in accruals from the corpus, in future years we will be continuing with only one faculty on this chair and transfer the other to the Institute account. The Madhuri Sinha Chair has been awarded to the following persons for their outstanding achievements in their respective fields –

For the year 2006 till 30th June, 2007 - Dr.A.P.Chaukar

For the year 2006-07 and 2007-08 - Dr. Yash Lokhandwala

Part I: Prof. A. P. Chaukar



1. Brief Background of Dr. A.P. Chaukar

He entered medical School (Seth G.S. Medical College) in 1958 & completed graduation (1962) Post graduation in surgery (1967) and Superspeciality (Cardiothoracic Surgery (1972). He served as lecturer, Asst. Prof. and Professor & Head, Department of Cardiothoracic Surgery from 1966 to 1998. The work consisted of clinical relief under graduate post and Post graduate teaching and research.

Dr. Chaukar spent one year (1974) in London, U.K as Commonwealth Fellow (paid by Association of Commonwealth Universities) mainly working on Homograft cardiac valve research. He established a full-fledged & recognized Dept of Cardiovascular and Thoracic surgery at L.T.M.G. Hospital. At the same place established a Tissue Heart Valve Research Laboratory. Received Hari Om Ashram & Rangachari Award of Association of Surgeons of India for original research on "Homograft Bioprosthesis for Mitral Valve Substitute" in 1999. He also served on various committees, mainly research oriented, at Chitra Institute. He has served as Examiner for M.Ch. Thor at various Universities in India.

2. Date of appointment to IIT: 2nd July 2001 (Terminated on 30th June 2007).

3. Courses taught/co-taught at IIT Bombay:

BM 603- Physiology for Engineers & BM 604 – Clinical Physiology.

4. Research

- i) Actively collaborating with the research on “Non-invasive near infra red light sensor for blood glucose monitoring” with Prof. Gargi Vishnoi. Final year installment from the donor obtained.
- ii) Actively worked as a catalyst for getting the research grant (Total Rs. 10 lacs) for “oil based surfactant”. The second installment has been received by Prof. Rinti Banerjee.

5. Collaboration Efforts

- i) As per the discussions and decision taken earlier Dr. Chaukar and the Head of Bioschool Prof. Jayesh Bellare visited “The Sree Chitra Tirunal Institute for Biomedical Sciences & Technology” (SCTIMST), Trivandrum last year.

They attended the Technology Development committee meeting (of which Dr. Chaukar is a member) of the SCTIMST in the month of October 2003. They had long discussion with the Director Dr. Mohan Das and Chief B.M.T. (Biomedical Technology) wing Dr. Bhuvaneshwar. As a result of these a MoU of teaching and research collaboration has been signed. This is one of the most important achievements of the year. This was possible because of excellent co-operation of Prof. Jayesh Bellare, Prof. Ashok Mishra, Director, IIT Bombay, Dr. Mohan Das and Dr. Bhuvaneshwar. A M.Tech student from SCTIMST, Trivandrum has joined IIT Bombay for joint course. This may now get extended to PhD and other courses.

- A visit of Dr. Jayesh Bellare and Dr. Chaukar to Tata Memorial Hospital (TMH) resulted in collaborative efforts with TMH. A high-powered team headed of Dr. K.A. Dinshaw from TMH visited IIT Bombay is on 30 July 2004. This has turned up possibilities of close cooperation for teaching and clinical research.
- A combined meeting was arranged of Confederation of Indian Industries (C.I.I.) including Director Centre for Excellence Shri Puranik, Dr. Chaukar and Prof. Jayesh Bellare at Vikhroli, Goderaj Centre for Excellence.

The outcome was positive and a proposal to have a one-day seminar of research institutes (e.g. IIT, SCTIMST, Trivandrum) users (e.g. TMH, KEM Hospital) and members of C.I.I. may be arranged some time in March 2005.

Dr. Chaukar is also working on completing few projects to be submitted to D.B.T. and D.S.T. These also will be done in collaboration with other Institutes, which is a very desirable step to strengthen our research programme.

6. Assistance with donors:

Donation to the tune of Rs. 10 lakhs for developing Non-invasive infrared light sensor for blood sugar monitoring. Primary worker Prof. Gargi Vishnoi.

Involved in assisting the oil based, surfactant (Dr. R. Banerjee) Bio & clinical aspect when needed.

Part II: Dr. Yash Lokhandwala, Adjunct Professor for the Madhuri Sinha Chair



1. Brief Background : Dr. Yash Lokhandwala

Prof. Lokhandwala entered medical school in 1979, passed out MBBS in 1983 with distinction in medicine. Received the Charlesmorehead Award for Clinical medicine from Bombay University.

He completed MD in medicine from Bombay University in 1988 and stood 2nd in the University and completed DM from Bombay University in Cardiology in 1990 and stood 1st in the University.

From 1991 to 2001 he worked as Faculty in G.S. Medical College and KEM Hospital. Presently he is working as Consultant Cardiology and Electrophysiologist at the following hospitals:

1. Wockhard Hospital
2. Holy Family Hospital
3. Cambala Hill Hospital
4. Nanavati Hospital
5. Breach Candy Hospital
6. Ruby Clinic Hall, Pune

Visiting Faculty – CMC, Vellore

Academic Honours:

Hargobind Medical Fellowship in 1994

Commonwealth Scholarship in 1994

Berry International Scholarship in 1994

Best Doctor of KEM Hospital award 2000

Marine Lines JC award for outstanding young person of Mumbai 2000

Specialised training:

Fellowship in Clinical Electrophysiology for 1 year in 1994-95 at Dept. of Cardiology, University Hospital Maastricht, The Netherlands. This was done under the guidance of Professor HJJ Wellens

Special Interests:

Electrophysiologic studies and Radiofrequency ablation for the diagnosis and treatment of tachycardias.

Date of Appointment to IIT : July 12, 2001 extended till July 7th 2009.

Courses taught/co-taught at IIT :

1. BM 603- Physiology for Engineers

2. BM 604 – Clinical Physiology &
3. BM 651 – Cell Physiology and Biopotentials

Students project guided /co-guided, with names of the project/topics and degree (M.Tech/Ph.D.)

- Co-guide for Ravindra R.P for his PhD project Blood viscosity Hypertension
- Co-guide for Satyajit Parakh for the development of PDA closure device
- BioMEMS for Cardiac diagnostics

Both these Professors have heightened IIT's interaction with Hospitals, assisted students and faculty and helped get funds for research. Thus, their involvement has been very valuable.

Some quotes from BioSchool Faculty

On Dr Chaukar: *“I feel students have benefited immensely from the width and depth of his clinical experience, and the insight that accompanies it. They have gained a good sense of what is required most urgently on the clinical applications front in Indian healthcare, and what is feasible.”*

On Dr. Yash: *“Students have appreciated his enthusiasm and teaching qualities, as well as approachability. He has strengthened our teaching programme with his expertise in cardiology and electrocardiography, and our research programme with his ideas for new applications of cardiac electrophysiology.”*

- Prof. Rohit Manchanda, Faculty, School of Bio Sciences

Regarding Dr Chaukar:

- 1) Dr Chaukar has been a great help in providing the necessary link between research and the clinical community for the MTech research project on "Surface modifications of small vessel grafts."
- 2) Dr Chaukar is a co-guide for my PhD scholar on the topic of "Surface modifications of bioprosthetic heart valves." He is an expert in this field and his suggestions and advice have been extremely valuable for this work.
- 3) Dr Chaukar has been actively engaged in teaching part of the courses "Physiology for Engineers" and "Clinical Physiology" and his inputs are gratefully acknowledged by the fellow faculty and students alike.

Regarding Dr Lokhandwala:

“Dr Lokhandwala has been involved in teaching part of the "Clinical Physiology" course as well as organising hospital visits for the engineers which have added tremendous value to the course.”

- Prof. Rinti Banerjee

“Dr. Lokhandwala has been interacting with faculty of the Bioschool very effectively. He has been the examiner of quite a few of my students for whom finding examiners in IIT would have been very difficult. He has been a co-guide of a few students (M.Tech.) and on the Ph.D. committee of others. Further he is a co-investigator with us in a project where the involvement of a cardiac electrophysiologist was a necessary condition set by the funding agency.

In short Dr. Yash Lokhandwala has been a welcome addition and has contributed significantly to the activities of the Bioschool.”

- Prof. Soumyo Mukherji

“IIT’s Bioschool takes great pride in being associated with two renowned clinical and surgical experts, namely Prof. Arun P. Chaukar and Prof. Yash Lokhandwala. Among the greatest value they bring to the Bioschool is their direct link to the patient and the health care systems of society. Through this, they allow our faculty and students to keep a literal pulse on the well-being and also the problems of health care that can be so effectively approached through engineering and scientific principles. We value their association greatly as they have contributed substantially to the teaching, research and fund-raising activities of the Bioschool. As we now get into an intense phase of infrastructure development, starting with a state-of-the-art Bioschool building, we feel their contributions will only increase.”

- Prof. Jayesh Bellare

Expenses incurred towards the Chair Professorships -- salary payments etc

Dr. Yash Lokhandwala - Salary (Consolidated honorarium) for the year 2006-07 - Rs.18,000/- per month and for the year 2007-08 - Rs.8,000/- per month

Dr. A.P.Chaukar - Salary(Consolidated honorarium) for the year 2006-07 - Rs.23,000/- per month. Appointment terminated on 30th June, 2007.

Dr. Krishna K. Sinha, Clinical Professor of Medicine, University of Colorado, Denver, has donated funds {through IIT Bombay Heritage Fund} for creating the Madhuri Sinha Chair in the School of Bio Sciences and Bio Engineering at IIT Bombay.

The Institute has appointed Dr. Chaukar and Dr. Lokhandwala as Adjunct Professors on the Madhuri Sinha Chair. The School of Bio Sciences & Bio Engineering (formerly known as BJM School of Bio Sciences & Bio Engineering) has been considerably enriched by the association of the two Professors jointly appointed as the “Madhuri Sinha Chair Professors”. Initially, their appointment was for two years, and has been extended for two years at the expiry of the term.

Financial Report

Funds Received through IITBHF

Donor	Year	Date of receipt	Amount US \$	Amount Rs.
Dr. Krishna Sinha	2002	8th March, 2002	58,000	28,22,280
Dr. Krishna Sinha	2003	13th March, 2003	42,000	19,90,800
TOTAL			100,000	48,13,080

Fund Utilization

Name of the Chair Professor	Date & Period of appointment	Consolidated salary per month (Rs.)	Total salary for the year 2005 (Rs.)
Prof. A.P.Choukar	July 2001– July 2007	23,000	2,76,000
Prof. Y.Y.Lokhandwala	July 2001– July 2007	18,000	2,16,000
		Total	4,92,000

NITESH THAKOR EXCELLENCE AWARD FOR SCHOOL OF BIO SCIENCES & BIO - ENGINEERING

Mr. Nitesh Thakor, Professor, John Hopkins University, USA. (B.Tech. Elec. Engg. 1974) had instituted the Nitesh Thakor Excellence Award.

IIT Bombay Heritage Fund had transferred US\$ 2000 in July 2003, \$3000 in January 2004 and \$ 2,000 in March 2005 towards Endowment for Nitish Thakor Excellence Award in School of Bio-Sciences and Bio-Engineering. It was recommended that the award amount shall be utilized as research grant for a deserving student.

US \$ 2000 realised was Rs. 91,820. US \$ 3000 realised was Rs.1,35,200 and US \$ 2000 realised was Rs. 86,920.Total comes to US \$ 7,000 or Rs. 3,13,940.

The total amount was invested in a Fixed Deposit and the interest amount was utilized to give the award during the years 2004-05, 2005-06 and 2006-07.

The award was given to Mr. B. Sivakumar {Roll No. 03330012} of the 2003-05 batch in 2005. Mr. Dhananjay Patil {Roll No.04330007} of 2004-05 batch was awarded in 2006 and Ms.Vaibhavi Yatin Shah {Roll No.05330402} was awarded in 2006-07. The award was given to the M.Tech. student, Mr. Lingala Sajan Gaud {Roll No. 06330011} for the year 2007-08.

DILIP R. LIMAYE ENDOWMENT FOR ACADEMIC EXCELLENCE AWARDS

Mr. Ryan Limaye had contributed a sum of US \$ 15000 to set up an endowment to award annual academic excellence award to the President of India Gold Medal winner of the graduating class. The annual academic excellence award will be called "Dilip R. Limaye Academic Excellence Award". The amount for the award is Rs. 50000.

IIT Bombay Heritage Fund had transferred US\$ 15,000 in July 2003 and US\$ 5,940.61 in March 2005 for Dilip R.Limaye Excellence Award.

The amount (\$15,000) realized was Rs.6,88,650 and out of this, Rs. 50,000 was utilised for giving the Award for the year 2002-03. Balance amount of Rs.6,38,650 was invested in a Fixed Deposit. The amount (\$5,940.61) realized was Rs.2,58,186 and was invested in a Fixed Deposit.

Shri Dilip R.Limaye Academic Excellence Award for the year 2006-07 was awarded to Mr.Yashodhan Kanoria, B.Tech. Electrical Engineering who won the President of India Gold Medal. The award for the year 2007-08 shall be awarded to Mr. Sushant Sachdeva in the forthcoming Convocation of the Institute.

RAKESH MATHUR ENDOWMENT FOR ACADEMIC EXCELLENCE AWARD

Mr. Rakesh Mathur (Alumnus, B.Tech. ME, 1978) had contributed a sum of US \$ 161,000 to set up endowments to award 3 annual academic excellence awards. US \$ 60000 was meant to establish an endowment for one Annual Academic Excellence Award for outstanding research in the area of Applied Sciences. The award is given to a Faculty member or Research Scholar of IIT Bombay. The initial cash award is Rs. 1,50,000. The award is named as “Prof. S.C. Bhattacharya Award”.

US \$ 60000 was meant to establish an endowment for one Annual Academic Excellence Award for outstanding research in the area of Pure Sciences. The initial cash award is Rs. 1,50,000. The award is named as “Prof. H.H. Mathur Award”.

US \$ 41000 was set apart to establish an endowment for one Annual Academic Excellence Award for a UG student (B.Tech. or DD). The award is given to the student with the highest CPI at the end of 3rd year. The initial annual cash award was Rs, 1,00,000. The award is named as “Rakesh Mathur Excellence Award”.

IIT Bombay Heritage Fund had transferred US \$ 161,000 in July 2003 to set up Endowments for three Annual Excellence Awards. The amount realized was Rs. 73,91,510 and was invested in a Fixed Deposit Scheme. The three Annual Excellence Awards are as follows:

Endowment for Prof. S.C. Bhattacharya Award - \$ 60,000 (Rs. 27,54,600)

Endowment for Prof. H. H. Mathur Award - \$ 60,000 (Rs. 27,54,600)

Endowment for Rakesh Mathur Excellence Award - \$ 41,000 (Rs. 18,82,310)

The Search cum Selection Committee recommended Prof. M. K. Misra, Department of Chemistry for Prof. H.H. Mathur Award for Pure Sciences for the year 2007. Prof. S. Chaudhuri, Department of Electrical Engineering has been awarded Prof. S. C. Bhattacharya Award for Excellence in Applied Sciences. Rakesh Mathur Excellence Award has been awarded to Mr. Paidimarri Arun of Electrical Engineering.

STUDENT ACTIVITIES – DHATUKI

The Metallurgy and Materials Science department has started taking various initiatives to infuse a sense of belongingness among the students. The Metals and Materials Association (MMA), solely handled by students, is working in full flow to organize events and to promote a love for the field of Metallurgy and Materials Science.

The Department of Metallurgical Engineering and Material Sciences publishes a department newsletter - Dhatuki. Recently, three Alumni of the department have contributed money for this activity. Mr. Raja Wusirika has given US \$ 2000, Mr. Varun Singh US \$ 250 and Mr. Satheesh Kuppurao US \$ 750. Thus, a total amount of US \$ 3000 has been received by IIT Bombay towards Dhatuki.

The students started Dhatuki, a department newsletter cum magazine, about 2.5 years ago in which the various aspects pertaining to the department, as well as the fields of metallurgy and materials sciences are covered. The magazine has received accolades from the students, Faculty, Alumni and the Industry alike. It is now regarded as the student mouthpiece. Motivated by the enthusiastic response received from various quarters, even hard copies have been published this year. The year 2007 saw 3 successful issues. Currently team Dhatuki is preparing for the 5th edition of the magazine. Due to lack of adequate funds, (as the Alumni donations have yet to reach the department), only the 3rd edition could be published in hard copy form. Continuous efforts are being made to reach out to the department's alumni and industries involved in Metallurgy and Material Sciences for raising funds. Recently some donations received from Alumni and some industries in exchange for their articles, advertisements, etc. have brought some relief with regard to finances. The magazine is solely compiled by the students. While faculty inputs are taken, the final magazine has to be usually approved by the HOD before being given for publishing. The latest issue delves into the mind of the Institute gold medalist, Shreerang Chattré, who says his most memorable day at IIT was when his team won the PAN IIT competition held in 2006.

DONATIONS RECEIVED DURING THE YEAR 2007

A large amount of donations were received from various Alumni through the IIT Bombay Heritage Fund during the year 2007. Mr. Sudhakar Shenoy donated a sum of US \$ 60000 on 2nd Jan 2007. The amount realized was Rs. 26,35,021 and is to be used for the purpose of construction of a Design Studio at the Industrial Design Center. This Studio shall be named as the “Shenoy Innovation Studio” and construction is in the initial planning stages.

Mr. Shivram Murthy donated US \$ 48,300 on 20th March 2007 towards Prof. Jaganmohan Award for Faculty Development. The amount realized was Rs. 20,62,919.00. This award was instituted by Dr Shivaram Murty, the brother of Prof A Jaganmohan and the fund is being channeled through the IITB Heritage Fund. The award, in its inaugural year (2007-08), has been awarded to Prof K K Issac and Prof U V Bhandarkar in the Department of Mechanical Engineering.

The Alumni in US gave US \$ 50,000 for Faculty Development Fund and US \$ 50,000 for Student Development Fund on 20th March 2007. The amount realized was Rs. 21,35,527.00 for the Faculty Development Fund and Rs. 21,35,527 for the Student Development Fund.

The Alumni belonging to the class of 1975 and based in US donated a sum of US \$ 55,555.37 on March 20th 2007. The amount realized was Rs. 2,372,800 and is meant for the Faculty Housing Project. On 20th March 2007 again, IITBHF transferred US \$ 25,000 for 5 Named Scholarships. The amount realized was Rs. 10,67,764.

On March 20th 2007, US \$ 10000 was transferred to IIT Bombay for the purpose of instituting Subramanian Excellence Award in the Physics Department. The donor is Mr. Balakrishna Subramanian and the amount realized is Rs. 4,02,686. On 9th July 2007, US \$ 75,000 was transferred to the Institute for the purpose of the Yogen Dalal Reading Room. The donor is Mr. Yogen Dalal and the amount realized is Rs. 30,20,146.

The Class of 1981 donated a sum of US \$ 49,631.24 for the purpose of instituting an Entrepreneurship Fund and the amount realized on 9th July 2007 is Rs. 19,98,581. An additional donation of US \$ 1006 has come on 25th Sept. 2007 for this purpose which amounts to Rs. 39,621. Alumni from the Class of

1981 also donated US \$ 47,362.59 towards the Scholarship Fund. The amount realized on 9th July 2007 is Rs. 19,07,225.

On 9th July 2007, US \$ 3600 was transferred to the Institute and this donation has come from US Alumni. The amount realized is Rs. 1,44,967 and is to be used for the development of hostel 3. Also, US \$ 30000 has been transferred to the Institute for the purpose of creating 6 named endowed scholarships. The amount realized is Rs. 12,08,058. The Alumni have donated US \$ 21767.23 for Hostel 7 Development Fund. The amount realized is Rs. 8,76,536.

Mr. Victor Menezes, a distinguished Alumnus of the Institute donated US \$ 500,000 which was transferred by the IITB Heritage Fund on 25th Sept. 2007. The amount realized is Rs. 1,96,92,416. Mr. Ashutosh Gupta has donated US \$ 2000 for instituting Chair Professorship in Civil Engineering Department. The amount realized is Rs. 78,770.

A donation of US \$ 3000 has been obtained from Mr. Raja Wusirika for the newsletter Dhatuki in the Department of Metallurgical Engineering and Material Sciences. The amount realized is Rs. 1,18,154. A donation of US \$ 15000 has been transferred by the IITB Heritage Fund towards IITBHF Scholarships. The amount realized is Rs. 5,90,772 and is meant to be given as scholarships to one UG and one PG student.

The Wadhvani Foundation donated US \$ 29970 which was transferred by IITBHF on 24th July 2007 for the purpose of the maintenance and purchase of equipment in the Wadhvani Electronics Lab. The amount realized is Rs. 12,05,244. The Alumni of the class of 1980 donated US \$ 75000 for the purpose of Powai Lake Project. The amount realized is Rs. 29,38,795. On 15th January 2008, the IITBHF transferred US \$ 100,000 for Suman Mashruwala Lab in the Department of Mechanical Engineering. The amount realized is Rs. 39,31,121.