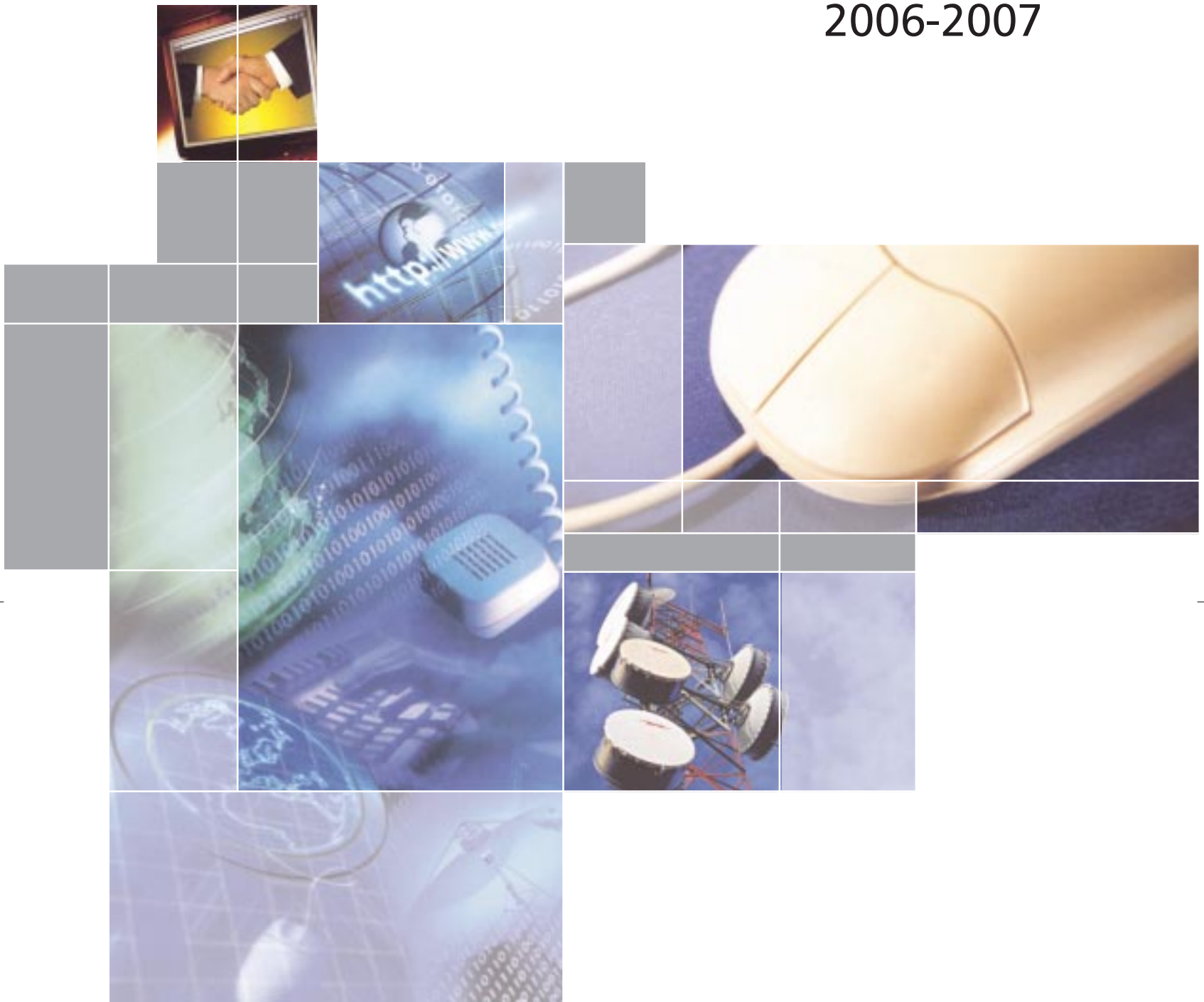


Annual Report 2006-2007



Foundation for Innovation and Technology Transfer





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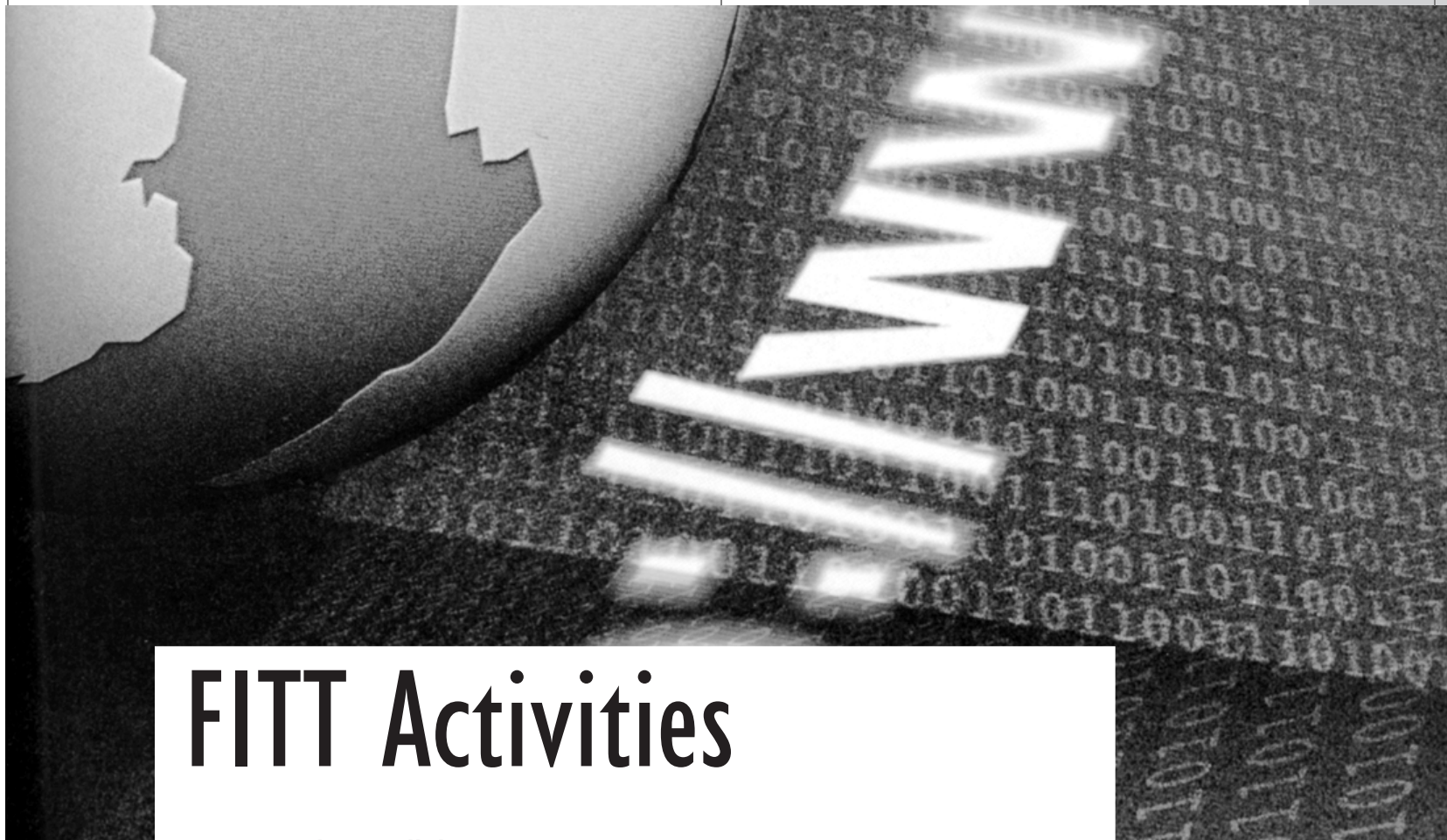
Director's Report

The year 2007 marks the glorious 60 years of India's independence while for FITT it is the fifteenth year of an exciting journey – a period that has seen it in a mission mode for effecting significant interface between the Institute and industry. Since its inception, FITT has been at the forefront in devising innovative ways to create linkages with business and community to enable knowledge transfer for sustainable benefits. Being part of a premier technical set-up we have opened up several networking opportunities and enhanced the scope for progressive research and development alliances. The highly motivated team of FITT and the distinguished academicians of IITD have largely been responsible for our successful outreach efforts.

FITT has the onerous task of showcasing and then transferring the “intellectual ware” of IITD to industry and also injecting industrial relevance to IITD's teaching and research profile. In this context, FITT offers a number of interactive formats which are both flexible and convenient to address variable needs. These include joint development projects, industrial consultancy, sponsored research, professional development programs, site visits, event participation, corporate membership etc. Our newsletters have undergone a makeover and have been so designed as to showcase the best IITD has to offer in terms of expertise, technologies and infrastructure resources.

In the past fifteen years, the World has been witness to many changes on the technological and economic horizon. India too has graduated to a liberalized economy and is making a substantial global mark. Relocation of MNC R&D set-ups in the country is making interesting reading. Breathtaking scientific and technological progress in frontier areas, and fresh challenges in energy and environmental sectors is driving a renewed research interest and is changing the way industry, academia and government function. FITT has been in the forefront of facilitating the change process in IITD by giving boost to the innovation process and is managing the Institute IP which has seen 53 accepted / granted cases out of nearly 170 filings so far. To encourage entrepreneurship based on technological innovations, a partnership mechanism exists in the Institute in the form of Technology Business Incubation Unit programme which is under the administrative control of FITT. As on March 2007 there are six resident technology start-ups out of 19 units admitted since the launch of this programme in 1999. Two start ups – Virtual Wire Technologies and Sanmotech Laboratories have recently spun-out for post-incubation commercial phase of operation.

FITT utilizes the resources and infrastructure of IIT Delhi. Each faculty scientist and researcher is the potential contributor to research and technology development efforts leading to technology transfer from FITT. However, teaching and research being their core activity; the number of faculty members involved in work with Industry is not a significant figure thus leaving a challenge for FITT to enhance the level of industrial research partnerships. To provide fillip to industrial orientation, at IIT Delhi two awards have been instituted by FITT for the best industry projects, for students completing Doctoral and Master's program every year. The year also witnessed new MOUs and research collaborations both with local and trans-national corporates!



FITT Activities

A. Outreach & Collaboration

In its continued zest, FITT reached out to the Industry Units and Associations bringing on board IIT Delhi faculty and researchers. The year saw tremendous industry-institute engagement and rejuvenated efforts for exploring various developmental and networking opportunities:

1. Besides the website, the quarterly FITT newsletters – FORUM and BULLETIN serve as our information diffusion channels addressing inter alia, contemporary technical issues and significant IITD happenings. The information reaches a wide spectrum of several hundred industries, R&D organizations, Government departments and academic institutions.
2. FITT facilitates the visit of faculty members to industrial units. Industry representatives are invited to make a presentation to a group of faculty in IIT Delhi highlighting their priority R&D areas and opportunities for collaborative

work with IIT Delhi. Several meetings were organized by FITT for visiting delegations from various countries and industries as exemplified below:

- A high level team from British Petroleum visited FITT on November 09, 2006
- H.E. Rogelio Granguillhome, Ambassador of Mexico paid a visit to FITT/TBIU on November 14, 2006
- Dr. P. Chatterjee, Chairman TCG Life Sciences visited FITT on December 29, 2006
- An MoU was signed between TCG Life Sciences & IIT Delhi (through FITT) on March 20, 2007 to establish a close cooperative relationship and



- invited as member to CII Forum on Enablers in Innovation
- invited as member to NCIDE, IGNOU

B. IPR

Scientific and technological advancement is an important catalytic factor in industrial development and economic progress. The Institute encourages protection of intellectual assets to foster innovation and create opportunities for wealth creation.

FITT facilitates and manages the Institute IPR activities. It receives information, carries out analysis and due diligence and processes for registration and maintenance of IP. Actual filings, though, are outsourced to PFC at TIFAC.

The list of IPR applications approved for filing during 2006-07 is given in *Appendix I*.

C. Technology Transfer

One of FITT's core activities is to transfer technologies developed at IITD for commercialization. Since April 2006, FITT has licensed 5 technologies to industry clients

to develop innovative solutions in the area of Life Science & Public Health.

- A research MoU was signed between Corning, USA and FITT on November 06, 2006
 - An MoU was signed between FICCI & FITT on November 13, 2006, with major objectives of promoting interaction between IITD and corporate sector in varied disciplines of Science and Engineering
 - FITT organized faculty visits to the following industrial units: Agilent Technologies, Gurgaon (31-8-2006) Amsoft, Gurgaon (2-11-2006) BPCL R&D, Noida (17-8-2006) Shefa Engineers, Ghaziabad (8-6-2007)
3. Mr. K. K. Roy, Manager (Tech./Admn.) was sponsored by the Asian Productivity Organization (APO) to participate in a study meeting "Enhancing Enterprise's Competitiveness through Technological Innovation" during 3-5 October 2006 at Singapore.
4. Dr. Anil Wali, Managing Director, FITT has, besides others, been
- nominated to the Constituent Committee for Technology Mission, MSME (GoI)
 - involved in TERI-WBCSD Scoping Study on Chemical Industry & Sustainability



for fees of Rs.48.20 lakhs plus periodic royalty payments. A brief description on major technology transfer projects is given in **Appendix II**.

D. Technology Development Projects

It is an accepted fact that technology development and its subsequent transfer to industry from an academic institute are often best accomplished through pursuance of short to medium term problem solving industrial projects. Such projects help the faculty to appreciate industry requirements at ground level and help in establishing mutual confidence and working relationships.

A lot of thrust has been put on such projects by IITD faculty and FITT has facilitated in executing them effectively. This activity has been growing over the years.

During the year 2006-07, 40 projects were contracted at a value of Rs.277.38 Lakh. A list of projects contracted during the year 2006-07 is given at **Appendix III**.

E. Professional Development Programmes

HRD or professional development programmes for industry has been a sustained activity and an important focus area of FITT. During 2006-07, 17 such programmes of the gross value Rs.57.36 lakhs were held with participation primarily from industry. **Appendix IV** lists the HRD activities undertaken by FITT during the year 2006-2007.

The year also saw, FITT organize, for the first time, a national level workshop on "Nanotechnology – Current Status and Challenges" during March 17-18, 2007.

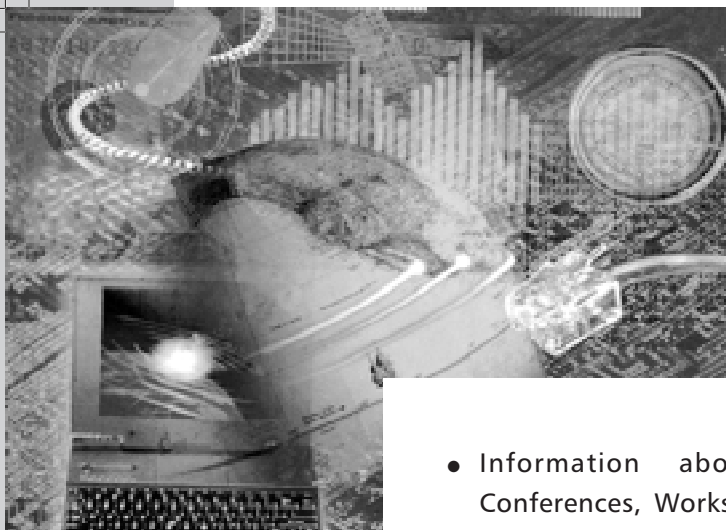
F. Corporate Membership

A major objective of FITT is to have a formal and effective relationship between the industry and the Institute on a mutually supportive basis. One mechanism for formalizing this relationship is to offer corporate membership to industry, industry associations and user-service organizations on payment of nominal fees. At present, there are about 102 corporate members of FITT. They are on the mailing list of FITT for all the programmes conducted at the Institute.

Besides a 10% concession in the participation fee in HRD programmes organized under the aegis of FITT, the following support services are also offered to the Corporate Members of FITT:

- Newspaper Clipping Services, Article services. Relevant S&T news
- Content page services from Journals of IIT Delhi Central Library
- Library consultation cards, full length Article from Journals and Patent Information search are given on request





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I. Recognition

FITT has been recognised as a TePP Outreach Centre by the TePP (Technopreneur Promotion Programme) Promotion Board of DSIR, G.O.I.

J. DSIR Recognition of FITT as Scientific and Industrial Research Organisation (SIRO)

The Department of Scientific and Industrial Research (DSIR) of the Ministry of Science and Technology conferred recognition to FITT as a Scientific and Industrial Research Organisation (SIRO). As a SIRO, FITT is eligible for full customs duty exemption for import of capital goods, raw materials and technology know-how that are required for execution of R&D programmes sponsored by the industry.

- Information about Seminars, Conferences, Workshops etc being held at IIT Delhi or elsewhere
- CD-ROM search services from Central Library, IIT Delhi and from FITT Information Centre
- FITT Newsletters showing, inter-alia, expertise, technologies and IP licencing opportunities.

A list of Corporate Members of FITT as on 31st March 2007 is given in *Appendix V*.

G. Marketing of Educational Video Programmes

The Educational Technology Services Centre of IIT Delhi develops single concept and full course video programmes. These video products are marketed by FITT. The gross value of the video products sold by FITT in 2006-07 was Rs.20 Lakhs.

H. National Technology Day Celebrations

The National Technology Day was celebrated at IIT Delhi on Thursday, 19th May 2007 with a well attended seminar meeting in the Senate Room of the Institute. The function was organised under the aegis of FITT. Prof Surendra Prasad, Director IIT Delhi presided over the function.





Organisation

Organisation Structure

The Management of FITT is vested with a full-time Managing Director. The policy guidelines for operations are provided and overall control is exercised by the FITT Governing Council. The broad organisation structure is given in the organisational chart in this section.

elect one member each from three Categories, large, medium and small sector industries (Category A, B and C) respectively. The Director of IIT Delhi is the *ex-officio* Chairman of the FITT Governing Council, and the Dean, IRD, IIT Delhi is an *ex-officio* member. The Managing Director is the *ex-officio* Member-Secretary.

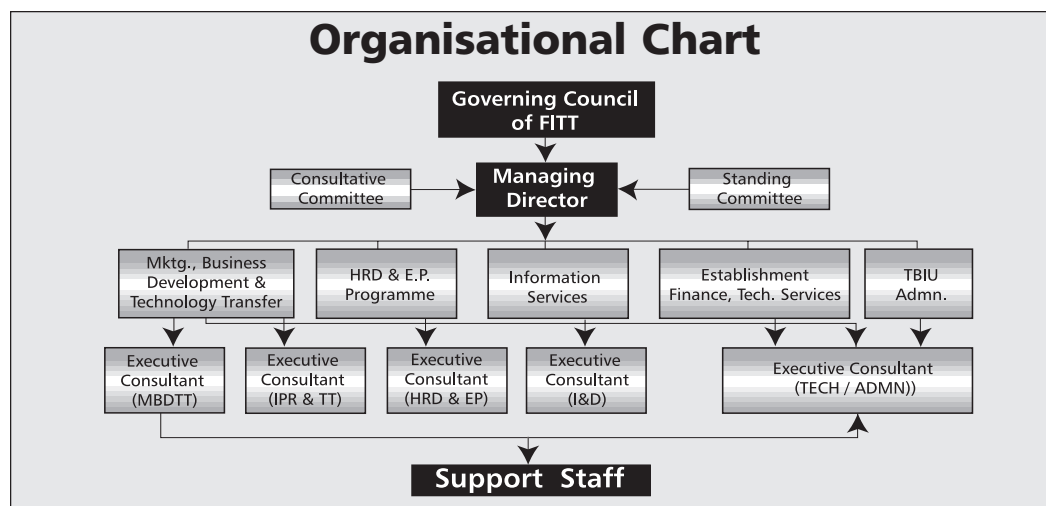
Governing Council

The Governing Council of FITT comprises representatives from Industry Associations/ Industries, nominees of IIT Delhi Senate and Board of Governors. In addition, there is one nominee of the Ministry of Human Resources Development. The Corporate Members of FITT

Consultative Committee

A Consultative Committee consisting of members drawn from industry and faculty has been constituted to aid and advise the Managing Director in implementing the activities of FITT. The Committee also functions as Research Council of FITT.

Organisational Chart



Governing Council

(As Reconstituted and Announced at the 12th Annual General Meeting held on October 13, 2006)

Chairman

Prof. Surendra Prasad
Director, IIT Delhi (Ex-officio)

Members

Prof. V.S. Bisaria
Dean (IRD), IIT Delhi
(Ex-officio)

Prof. V.K. Kothari
Textile Tech, IIT Delhi

Prof. M.K. G. Babu
CES, IIT Delhi

Prof. J.K. Chatterjee
Elect.Engg, IIT Delhi

Prof. M.M. Pant
Member, B.O.G. IIT Delhi

Mr. H. Purushotham
Scientist 'G'/Advisor
DST, New Delhi

Mr. Vivek Bharati
Advisor,
FICCI, New Delhi

Mr. Somenath Ghosh
C&MD, NRDC
New Delhi

Mr. Ashok K. Kapur
Head, L&T Engg.
Dharuhera, Haryana

Mr. Jaideep Bihani
Managing Director
Bihani Manufacturing
New Delhi

Mr. Vishnu Varshney
President & CEO, GVFL
Ahmedabad

Dr. A. Wali
Member Secretary
Managing Director, FITT (ex-officio)

Consultative Committee / Research Council

Chairman

Managing Director, FITT (*ex-officio*)

Members

Prof. M. Balakrishnan
Dean PG S&R, IIT Delhi

Prof. A. K. Gosain
Civil Engg, IIT Delhi
(ex-officio)

Prof. S. K. Koul
CARE

Prof. K.C. Iyer
DMS, IIT Delhi

Dr. P. K. Bhatnagar
V. P
Ranbaxy Laboratories Ltd.
Gurgaon

Prof. B. Jayaram
Dept of Chemistry, IITD

Prof. A.K. Ghosh
CPSE, IIT Delhi

Prof. Anoop Chawla
Mech Engg, IIT Delhi

Mr. Anjan Das
Sr. Director
Confederation of Indian
Industry
Gurgaon

Mr. C.P. Singh
Director (Engg., and
R&D)
BHEL
New Delhi

Dr. Jai Menon
Director IT & Innovation
Bharati Tele Ventures
Limited
Gurgaon

Mr. M.S. Bawa
Secretary, IITAA
IIT Delhi

Mr. Kiran Deshukh
Chief Operating
Officer
Sona Koya Steering
Systems Ltd.,
Gurgaon

Mr. V. Sethuraman
President, IITDAA
IIT Delhi

Member -Secretary
Mr. K.K. Roy,
Executive Consultant (Tech./Admn.), FITT (ex-officio)

Invitees
Part- time consultants & Core staff of FITT



Key Projects and Initiatives

I. Innovations

Technology Business Incubation Unit at IIT Delhi

FITT had assisted in formulating and establishing the scheme of Technology Business Incubation Unit (TBIU) in the Institute campus in the year 2000. The objective of the TBIU is primarily to promote partnership with new technology entrepreneurs and start-up companies. As part of the TBIU scheme, limited modular space is provided to new entrepreneurs, first generation start-up companies or technology based organisations for setting up an office or workstation or a prototype laboratory within the Campus, with the intention of

- i) promoting interaction with, and technology/ expertise resourcing from, the members of academic staff and research scholars of the Departments / Centres of the Institute, and

- ii) incubating novel technology and business ideas into viable commercial products or services.

The modular space, developed with appropriate infrastructure like electricity and power lines, telephone and networking arrangements without any other furniture as such, are made available to critically screened entrepreneurs, start-up companies at concessional charges. Permitted activities in the TBIU include product development, product innovations, software testing, simulation and prototyping, pilot experimentation, training and similar other technology related work, in which there exist homology with the Institute.



The Board of Governors of IIT Delhi approved the setting up of the TBIU in IIT Delhi in its meeting in April, 1999. The responsibility of administration and day-to-day management of TBIU is vested in FITT. An Institute level empowered committee (known as TBIU Board) oversees the overall functioning of the scheme. The composition of the TBIU Board is as under:

1.	Prof. Surendra Prasad, Director, IITD	Chairman (Ex-officio)
2.	Prof. B. N. Jain, Dy. Director (Faculty), IITD	Member (Ex-officio)
3.	Prof. H. C. Gupta, Dy. Director (Admn), IITD	Member (Ex-officio)
4.	Prof. V. S. Bisaria, Dean (IRD), IITD	Member (Ex-officio)
5.	Prof. D. T. Shahani, Chairman (Estate & Works), IITD	Member (Ex-officio)
6.	Mr. Ashish Gupta, Managing Director, Helion Ventures Pvt. Ltd.	Industry Representative
7.	Dr. Surinder Kapur, Chairman & Managing Director, Sona Koyo Steering Systems Ltd.	Industry Representative
8.	Mr. Vishnu R. Dusad, Managing Director, Nucleus Software Exports Ltd.	Industry Representative
9.	MD, FITT	Convener (Ex-officio)

Another high level committee (known as Standing Screening Committee) has also been set-up for screening of applications from start-ups for recommending membership of TBIU. The Standing Screening Committee has the following representation:

1.	DD (F), IIT Delhi	Chairman (Ex-officio)
2.	Dean (IRD), IIT Delhi	Member (Ex-officio)
3.	Prof. K.L. Chopra, IIT Delhi Ex-Director, IIT Kharagpur	Member
4.	Prof. R.K. Arora, IIT Delhi Ex-Professor, IIT Delhi	Member
5.	MD, FITT	Convener
6.	Industry Experts	Invitees

An approximate area of 3500 sq.ft. in Block-I extension has been developed for the modular office spaces, with 30 seating Conference Room, Meeting Room and a separate Reception and Business Centre with common facilities appropriately equipped. The TBIU is being extended with new modules coming up on the roof top of Synergy Building.

Several initiatives have been taken by FITT to promote and publicise the TBIU at IIT Delhi. These include articles and features in newspapers and trade magazines like Intelligent Investors. In the previous years, FITT has had been interacting with a number of VC funds/ angel investors in an effort to build-up a network to facilitate incubates in successful setting up of commercial ventures.

Incubation proposals initiated by one or more members of faculty/student are considered the most preferred category for incubation residency. As a further measure to encourage the faculty participating in Technology Business Incubation as promoter/ owner of the start-up company, the Institute has established appropriate policy guidelines. Towards commercialization of technologies developed through academic pursuits at UG/PG levels, the Institute has approved the FITT originated proposal "**An incubation programme for students/ faculty led technology start-up**". This is a proposal for initiating an incubation programme under which technology development is undertaken by students over a period of 1 to 2 years after they graduate. The development takes place at IIT Delhi under the guidance of their project supervisors and builds upon the research they carry out during their final year project, using existing departments/lab resources but

with financial support from IITD/IRD/FITT, particularly in the form of student support and equipment.

As on 31 March, 2007 there were six incubatee members.

1. **Mechartes Researchers Pvt. Ltd**
(Faculty Promoter/Director:
Prof. C.V. Ramakrishnan Applied
Mech; Dr. M. Ravi Mech. Engg;
Mr. Shishir Gupta, CEO)

Mechartes Researchers Pvt. Ltd has been brought to existence with the vision to provide total simulation solutions in a customized & user friendly manner.

Mechartes is in the development stages for developing simulation package for automobile muffler, shock absorber, steering system & disc brakes. Mechartes is also in development stages for building a Finite Element Analysis (FEM) code and Computational Fluid Dynamics (CFD) code for utilization in the envisioned simulation packages.

2. **Sanmotech Labs Pvt. Ltd.** (graduated since 3-4-2007) (Faculty Promoter/Director: Prof H.M. Chawla, Deptt of Chemistry, IITD)

SANMOTECH stands for Synthetic and Natural Molecular Technologies which signifies the start of innovative technology development initiative in niche chemical areas. Sanmotech Laboratories are engaged in the development of new generation of





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6. LeadInvent Technologies Pvt. Ltd.

*(Promoter: Professor B. Jayaram
Deptt of Chemistry; Mr. Pankaj
Sharma, CEO)*

multi-tasking sunscreen activities for protection from ultra-violet radiation and prevention of photoageing and sunburns.

3. SM On Yo Mo Infotech Pvt. Ltd.

*(Promoters: Mr. Shailesh Mehta, CEO;
Mr. Pradeep Parappil, COO)*

SM On Yo Mo is an information service provider that delivers consumer information over internet and mobile devices. The company commenced its operations in August 2005.

SM On Yo Mo provides search over and accompanying services for structured data. It consists of a platform that implements the search and an application that uses the implementation. The application validates On Yo Mo's platform. It enables search on consumer categories. The consumer search is available for Indian cities.

4. Elfsys Embedded Solutions Pvt. Ltd.

*(Promoter: Professors Santanu
Choudhury, Subrat Kar, Elect. Engg.
and Mr. Praval Jain, CEO)*

5. Tensor Technologies Pvt. Ltd.

*(Promoter: Professor Sanjeev Sanghi
Applied Mechanics; Mr. Chander
Shekhar, CEO)*

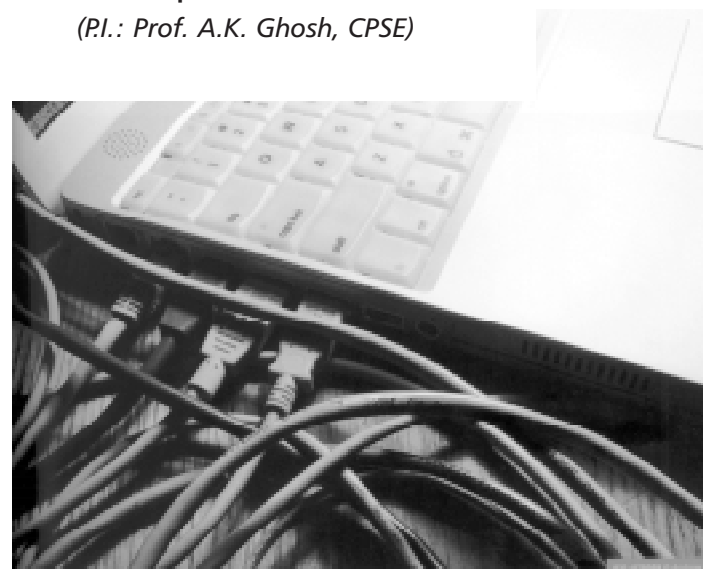
Tensor Technologies (P) Ltd is a Technology Company incubated inside TBIU, IIT Delhi. The company works in the area of Mobile Search with a focus on facilitating users with querying in their preferred language and getting back user specific results in the queried language.

LeadInvent Technologies Pvt. Ltd is a spin off company from IIT Delhi's premier Supercomputing Facility for Bioinformatics and Computational Biology (SCFBio). Started by industry experts and faculty, scientists from SCFBio in November 2006, the company has evolved into a knowledge based company. LeadInvent (LI) vision is to provide cutting edge R&D solutions to life science industry. Company core strengths are its proven molecule simulation technologies in areas such as three dimensional protein structure prediction and lead molecule discovery. Considered to be pioneers in high performance bio and chemo informatics, LI team brings with it extensive research experience in life science fields with core Chemistry, Biology, IT and Mathematics knowledge.

II. Research / Technology Development Projects:

1. Functionalized Polyimide Oligomers for Composites

(P.I.: Prof. A.K. Ghosh, CPSE)



The main objective of the project is to prepare functionalized imide oligomers with M_n 1000-10,000 g/mol having a decomposition temperature above 400° C, which are soluble in organic matrix resins such as epoxy and should impart negligible viscosity increase. Because of these constraints it is proposed to synthesize addition polyimides oligomers having a FMW (Formulated Molecular Weight) less than 2000 containing ether linkages.

2. Analysis of two-phase flow through fine channels of Porous Substrates
(*Pl.: Dr. Shantanu Roy, Chemical Engg.*)

A Technical Consultancy project has been undertaken, towards Analysis of Two-Phase Flow Through fine Channels of Porous Substrates, for the Client Corning Incorporated S&T, New York, USA.

3. Design of Millimeter Wave Components and Generating Computer aided design data of Suspended Substrate based Components at 140 GHZ
(*Pl.: Prof. S.K. Koul, CARE*)

The scope of the project constitutes the following:

(i) Analysis of suspended stripline (SSL) on quartz substrate at 140 GHz; (ii) Design of Probe Transition to rectangular waveguide (for Gunn Oscillator); (iii) Design of Band Pass Filter; (iv) Design of Directional Coupler of coupling values of 3,6, and 10 dB; (v) Design of Crossbar Mixer

4. Thermoforming of PP Sheets for Industrial Applications
(*Pl.: Prof. A.K. Ghosh, CPSE*)

The objective of the project is to establish thermoformability of PP thick-sheets in terms of i) formability limit; (ii) part performance and (iii) product development. Generate knowledge for material and process parameters for best in class thermoformed part.

5. Microencapsulation of Bifidobacterium longum

(*Pl.: Prof. Subhash Chand, DBEB*)

The project is in the area of Bioprocess Development and comprises the following activities; (i) Isolation/procurement of microbial culture; (ii) Cultivation of cell mass; (iii) Microencapsulation/ immobilization of cells; (iv) Dehydration of IMC and (v) Evaluation for cell viability.

6. Design Development of fuel feeding system for high moisture content coal for Bubbling Fluidised Bed combustion (BFBC) boiler
(*Pl.: Prof. B. Pichumani; Chemical Engg.*)

The project comprises design development of chutes, bunkers/silo, fuel feeder outlets, pneumatic transportation system etc, to improve the feeding of high moisture and high fines content coal/lignite for BFBC boilers. The project also includes development of a lean phase pneumatic transportation system to feed wet/dry fuel at low pressure drop.

7. Noise Filtering and Spectral Estimation Techniques for Passive Sonar Data

(*Pl.: Prof. R. Bahl; CARE*)





This project involves algorithm design, on-site studies for performance testing and lab based software development.

8. Hydrological Modeling of Krishna Basin

(P.I.: Prof. A.K. Gosain; Civil Engg.)

The objectives of the study are to perform the hydrological modeling of Krishna-river basin using the SWAT model and assess the basin and sub-bas in yields.

III. Technology Transfers: Illustrative Profiles

1. Statistical Scenario Analysis Software Package

(P.I.: Dr. Arun Kumar, CARE)

A non-exclusive knowhow transfer agreement (license agreement) was made between MACMET Technologies & FITT, pertaining to the transfer of a product "Statistical Scenario Analysis Software Package". The validity of the license is for a duration of 25 years.

2. High Pressure Biogas (Gobar Gas) Enrichment and Bottling System

(P.I.: Dr. V.K. Vijay, CRDT)

A technology transfer agreement of High Pressure Biogas (Gobar Gas) Enrichment and Bottling System was made between FITT & Tech Zone, Tamil Nadu. The collaborative project comprises of design, development of High Pressure Bio Gas

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(Gobar Gas) Enrichment and Bottling System by IIT Delhi and the engineering realization by Tech Zone for commercialization. The non-exclusive license is for 10 years for a royalty on sales.

3. Vehicle Underside Scanner

(P.I.: Prof. Anshul Kumar, CSE)

A non-exclusive technology transfer agreement was made between IIT Delhi and ECIL, Hyderabad. This agreement was for know-how transfer of the Vehicle Authorization System and Under Carriage Vehicle Inspection System developed at IIT Delhi.

4. Design and Development of reusable pilfer proof currency carrying FRP cases

(P.I.: Dr. N. Bhatnagar, Mech. Engg.)

A technology development project was completed on exclusive basis for Bank Note Press, Bhopal, M.P.

IV. HRD Programs:

Workshop on Nanotechnology – Current Status and Challenges

A National Level Workshop titled "Nanotechnology – Current Status and



Challenges" was held at IIT Delhi from March 17 to 18, 2007 under the aegis of FITT. This workshop was designed to discuss the entire scenario of nanotechnology, from the excitement to more realistic issues and gives a bird's eye view to applications in a variety of disciplines ranging from medicine, textiles, sensors, electronics and nanomachines. Another unique feature was that all the lectures, barring three, were being given by IIT Delhi faculty. There was a tremendous response from students especially of engineering colleges and the total number of participants were 325. The highlights of this workshop was the plenary lecture by Prof. Ajay Sood of IISC, Bangalore and Special Lecture by Prof Ramgopal Rao of IIT Mumbai.

Short Course on "Embedded Systems"

A 3-month long part-time course on "Embedded Systems and Applications" was conducted during the period 2nd March to 28th May, 2006 with Prof. Santanu Chaudhary and Dr. I. N. Kar (Elect. Engg. Deptt.) as the Academic Coordinators. A participation fee of Rs.35,000/- was charged from a total number of 38 participants who attended the course. The course was 5th batch in its series.

V. FITT Awards for best Industry Relevant Ph.D and M.Tech/M.S. (R) Projects:

With effect from the academic session of 2002-03, Foundation for Innovation and Technology Transfer (FITT) has instituted two awards, one each for Ph.D. and M.Tech./M.S. (R) projects adjudged as the best Industry Relevant Projects. Following students were selected for the 2006-07 FITT Awards:

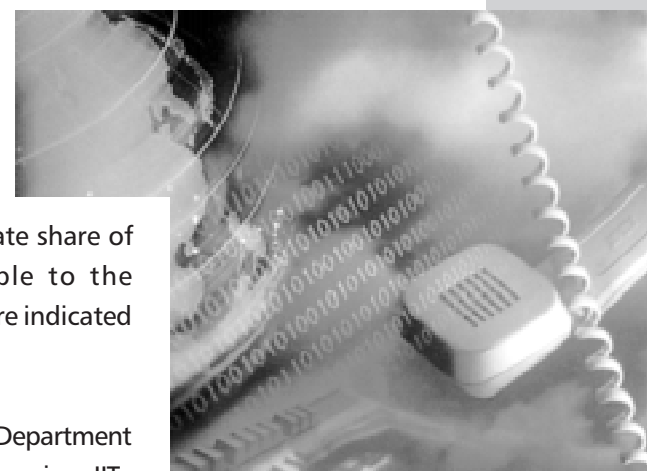
Mr. Vipin Kumar., Research Scholar in the Department of Electrical Engineering. Project titled: "Power Quality Improvements at AC mains in variable Frequency Induction Motor Drives "

Mr. Sunil Kumar, Student of the M.Tech Program in the Civil Engineering Department (Geotechnical and Geo environmental Engineering)". Project titled: "An experimental study of the behaviour of expansive clays treated with different fly ashes"

Mr. Sajal Barman, Student of the M.Tech Programme in the Textile Technology Department (Fibre Science & Technology). Project titled: "Studies of Inorganic Phase Change Materials based on Calcium Chloride".

Further, proportionate share of award money payable to the Faculty Supervisor (s) are indicated against their names:

1. Prof. Bhim Singh, Department of Electrical Engineering, IIT Delhi.
2. Dr. G. Bhuvaneswari, Department of Electrical Engineering, IIT Delhi
3. Prof. J.M. Kate, Department of Civil Engineering, IIT Delhi
4. Dr. Ashwani K. Agarwal, Department of Textile Technology, IIT Delhi



Financial Highlights

(Figures in Rs. Lakhs)

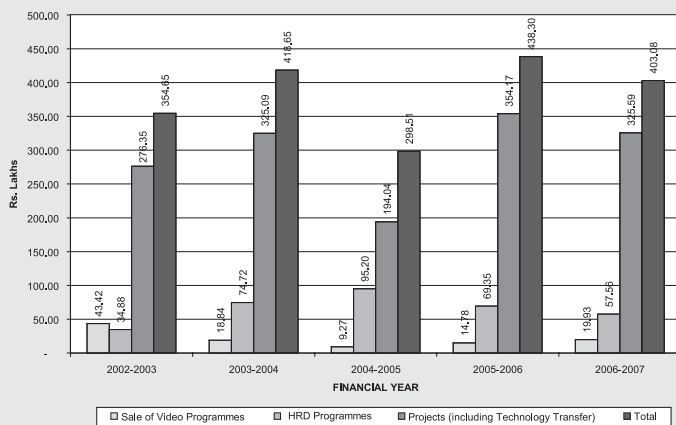
	1999-2000	2000-2001	2001-2002	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007
Investments								
Bank deposits and Bonds	640.14	778.59	905.00	775.00	558.50	883.50	1,075.00	1,213.50
Earnings								
(i) Interest	62.38	70.97	82.70	69.70	98.77	55.34	86.04	81.91
(ii) Projects/Other Activities	26.09	28.82	32.43	26.98	28.69	24.31	29.63	33.69
(iii) Corporate Membership Fees	2.87	*	*	2.59	2.65	2.28	2.83	4.64
Expenditures								
(i) Capital	1.63	17.76	1.39	2.15	0.76	0.77	1.50	1.37
(ii) Operational/ Promotional/ Administrative	46.60	45.29	50.95	65.73	72.66	61.16	54.00	57.51
(iii) Rent for Office Premises (Payable to IIT Delhi)	9.00	8.92	9.28	8.09	8.09	8.09	5.97	5.27
Fund for Transfer to IIT Delhi (Project Activities)	22.68	25.08	29.91	26.48	30.12	27.34	30.08	36.50
Assets Generated for IIT Delhi out of project activities administered by FITT	29.08	21.29	24.06	93.70	69.64	38.61	22.59	19.71
Value of Projects Contracted/ Other Activities at FITT	386.22	481.23	379.55	354.65	418.65	298.51	438.30	403.08

* Corporate Membership fees were accounted for under N-WISE project. In 2000-2001 the total fees received were Rs.2.46 lakhs and in 2001-2002 Rs.3.10 lakhs.

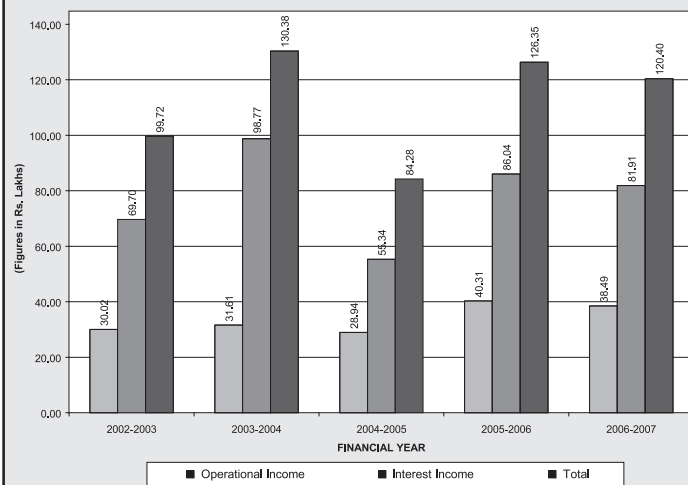
FY-06-07

ANNEXURES

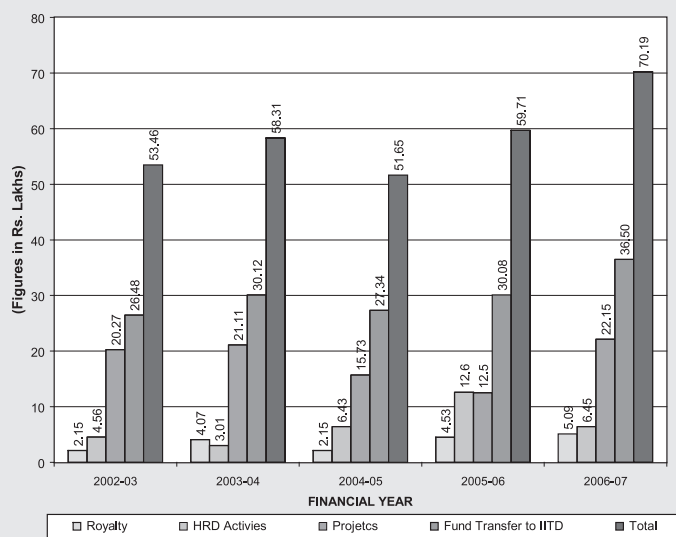
Value of Major Activities Undertaken by FITT



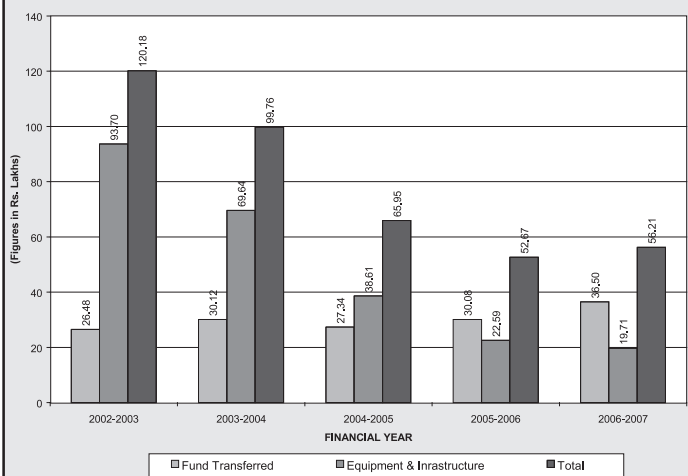
Income Profile of FITT



Resource Generation for FITT & IIT



Assets Generated for IIT Delhi



APPENDIX - I

List of IPR Applications Approved / Filed / Processed by IITD-IPR-SC during the Year 2006-2007

S.No.	Title of Invention	Principal Inventor/Deptt./Centre
1	Process for Preparation of formulation for hair shine and hair setting and the product	Prof. H. M. Chawla, Chemistry
2	Process for Preparation for fruit shine and the product	Prof. H. M. Chawla, Chemistry
3	Process for Preparation of formulation for leaf shine and the product	Prof. H. M. Chawla, Chemistry
4	Pollution Preventing Temperature Sensitive Lithographic Inks	Prof. A. N. Bhaskarwar, Chemical Engg.
5	Automation Sarvodhara Instrument	Prof. D. T. Shahani, IDDC
6	An Apparatus and Method for accessing Computer Data and Surfing the Internet by a Display Unit using Wireless Communication	Dr. Ranjan Bose, Elect. Engg.
7	A Novel Isolated Transformer for 20/40 Pulse AC-DC Rectification	Prof. Bhim Singh, Elect. Engg.
8	Schottky-gate Bipolar Mode Field Effect Transistor	Prof. M. Jagadesh Kumar, Elect. Engg.
9	Cane-Mounted waist-above obstruct detection & warning system	Prof. M. Balakrishnan, CSE
10	User triggered bus identification & building navigation system	Prof. M. Balakrishnan, CSE
11	A hit impact Decicator for Kuranza seeds	Dr. S. N. Naik, CRDT
12	Splicing of continuous multifilament silk yarn	Prof. P. K. Banerjee, Textile Tech.
13	In-situ production of near-micron-sized solid particles using a foam bed reactor	Prof. A. N. Bhaskarwar, Chemical Engg.
14	1. A Process for Solvent-less synthesis of Benzoxazine (BZ) (Monomer of Polybenzoxazine (PBZ) 2. Product-Brake Pad with New Resins.	Prof. (Ms.) Jayashree Bijwe, ITMMEC
15	Electro-Oculogram (EOG) based multimode controller to rehabilitate severely disabled	Dr. (Ms.) Jayashree Santosh, CSC
16	Tracking of mobile target with a selected pair of sensors	Dr. Naresh Sharma, Elect. Engg.

S.No.	Title of Invention	Principal Inventor/Deptt./Centre
17	Madhuca-indica flower juice concentrate for confectionaries and beverages	Dr. S. N. Naik, CRDT
18	A Novel Closed Loop Amplitude and Frequency Controller for Self Excited Induction Generator Output Voltage	Prof. J. K. Chatterjee, Elect. Engg.
19	Radial Impregnation Die (RID) for Rapid Processing of Continuous Fiber-Thermoplastic Composite	Dr. Naresh Bhatnagar, Mech., Engg.
20	Novel Shipping Containers	Prof. Anoop Chawla, Mech., Engg.
21	Bare foot walking over sand/gravel on a horizontal rotating turn table for exercising and power generation	Dr. P. Sudhakar, CRDT
22	An isolation Transformer based 36-Pulse AC-DC Converter	Prof. Bhim Singh, Elect. Engg.
23	Extraction of Nickel from Spent Catalysts using EDTA as Chelating Agent	Prof. K. D. P. Nigam, Chemical Engg.
24	An instrument for measuring Cut Resistance of Textile Fabrics	Prof. V. K. Kothari, Textile Tech.
25	A Method for the surface functionalization of polypropylene and the dyeability of the products thereof	Dr. Bhuvnesh Gupta, Textile Tech.
26	Variable Radius Gear System for Rack and Pinion Steering	Prof. S. K. Saha, Mech Engg.
27	MR fluid based smart yoke for the manual rack and pinion steering system	Prof. S. K. Saha, Mech. Engg.
28	Engineered Bamboo Pipes with Suitable Pairing of the radially split bamboo slats	Dr. P. Sudhakar, CRDT
29	Half split bamboo bow beams with concrete in fill and other housing elements	Dr. P. Sudhakar, CRDT
30	Lab Coat	Prof. M. L. Gulrajani, Textile Tech.
31	Novel Algorithm for Global Optimization	Prof. Jayadeva, Elect. Engg.

Note:

IDDC : Instrument Design Development Centre

ITMMEC: Industrial Tribology Machine Dynamics & Maintenance Engineering Centre

CSE : Computer Science & Engineering

CRDT : Centre for Rural Development & Technology

CSC : Computer Service Centre

CARE : Centre for Applied Research in Electronics

FY-06-07

APPENDIX - II

Technologies Licensed during 2006-07

S. No.	Title	Principal Inventor	Deptt/Centre	Client
1	Technology Transfer Project "High Pressure Bio Gas (Gobar Gas) Enrichment and Bottling System"	Dr. V.K. Vijay	CRDT	Tech-Zone
2	Statistical Scenario Analysis Software Package	Dr. Arun Kumar	CARE	Macmet Technologies Ltd,
3	Vehicle Under side Scanner	Prof. Anshul Kumar	CSE	BEL
4	Vehicle Under side Scanner	Prof. Anshul Kumar	CSE	ECIL
5	Design & Devt of reusable pilfer proof currency carrying FRP cases	Dr. N. Bhatnagar	Mech. Engg	Bank Note Press, Govt. of India

APPENDIX - III

Development Projects during the Financial Year 2006-2007

S. No.	Title	Principal Inventor	Department	Client
A. Projects Linked with TBIU				
1	Consultancy for GEDK Project	Dr. Kolin Paul	CSE	M/s. Kritikal Solutions Pvt Ltd, Noida
2	Modelling Railway Track Alignment between Birajganj and Kathmandu in Nepal	Prof. A. K. Gosain	Civil Engg.	M/s. INRM Consultants Pvt Ltd, New Delhi
B. Projects involving Foreign Contribution				
1	Functionalized Polyimide Oligomers for Composites	Prof. A.K. Ghosh	CPSE	M/s. Solvay Advanced Polymers LLC, USA
2	Synthesis & Characterization of Acrylic Polymers by Seeded Emulsion Polymerization	Prof. Ms. Veena Chaudhary	CPSE	PPG Industries Inc, USA
3	Analysis of two-phase flow through fine channels of porous substrates	Dr. Santanu Roy	Chemical Engg.	Corning Incorporated S&T, New York, USA
4	GPU Architecture	Prof. Subodh Kumar	CSE	M/s. NVIDIA, USA
C. Ongoing Projects Contracted Earlier with Progress in Phases				
1	Effective ERP Guidelines	Prof. Subash Wadhwa	Mech. Engg.	M/s. Anand Nishikawa Company Ltd, Gurgaon
2	Continuation Work in the Technology Development Project entitled "Study of RF MEMS Phase shifter and Switch Using GAAs (Phase-III)"	Prof. S. K. Koul	CARE	Research Centre, Imarat, DRDO, Hyderabad
D. New Projects, Generally Addressing Technology Devt/Tech. Transfer				
1	Technology Development cum Transfer Project "Design of Millimeter Wave Components, Generating computer aided design Data of suspended Stripline (SSL) base components_Based Components at 140 GHz"	Prof. S. K. Koul	CARE	Defence Electronics Applications Laboratory (DEAL), DRDO, Dehradun

S. No.	Title	Principal Inventor	Department	Client
2	Technology Development Project "Feasibility of getting double cantilever test structures fabricated at MEMSTECH Foundry in Singapore"	Prof. S. K. Koul	CARE	M/s. Astra Microelectronics Tech. Ltd, Hyderabad
3	Project "Planning & redeveloping of spaces, pedestrian & vehicular movement, roads, footpaths & parking around the various terminals at Delhi Airport"	Dr. (Ms.) Geetam Tiwari	TRIPP	Mr. Pradeep Sachdeva Design Associates, New Delhi
4	Characterization of pyro powder and Energy Saving in Production of Aluminium Powder	Prof. B. Pitchumani	Chemical Engg.	Sri Kaliswari Metal Powders Pvt Ltd, Sivakasi
5	Development of a TCP/IP Protocol Stack for AC Plant Controller	Prof. Subrat Kar	Elect. Engg.	M/s. Powertech Electronics, Indore
6	Micro encapsulation of Bifidobacterium longum	Prof. Subash Chand	DBEB	M/s. Genom Bitech Pvt Ltd, Nasik
7	New Design of Dispensing Pipes	Shri. L. K. Das	IDDC	M/s. Avery India Ltd, Faridabad
8	Enzymatic Processing of Tamarind Kernel Powder	Prof. Subash Chand	DBEB	M/s. Dali Agro Works, New Delhi
9	Comparative study report on HDPE Resin Specifications for Telecom Duct (Phase-II)	Prof. A. K. Ghosh	CPSE	M/s. Dura-Line India Pvt Ltd
10	New Design of Retail Scale (Weighing Machine)	Prof. L. K. Das	IDDC	M/s. Avery India Ltd
11	Design of Two Nos. Water Filtration Units	Prof. L. K. Das	IDDC	M/s. Pentair Water India Pvt Ltd
12	Operating Plan for the Implementation of HCBS on 15kms stretch of Ambedkar Nagar to ISBT corridor	Dr. (Ms.) Geetam Tiwari	TRIPP	M/s. RITES, Gurgaon
13	Strategic Alliance Between Supercomputing facility for Bioinformatics & Computational Biology and HCLT Ltd	Prof. B. Jayaram	Chemistry	M/s. Global Lifescience and Healthcare, HCLT Ltd, Noida

APPENDIX - III

S. No.	Title	Principal Inventor	Department	Client
14	Feasibility Analysis of Mixed Allocation of Spectrum for 3G Services	Prof. S. Prasad	Elect. Engg.	Telecom Regulatory Authority of India, N.Delhi
15	Design Development of Fuel Feeding System for High Moisture Content Coal for bubbling fluidized Bed Combustion (BFBC) Boiler	Prof. B. Pitchumani	Chemical Engg.	Bharat Heavy Electricals Ltd, Tiruchirapalli
16	Development of a Jack for the wheel chair for disabled persons	Prof. Sudipto Mukherjee	Mech.Engg.	Sameer Mohindra, New Delhi
17	Low Power IC Design EDA Tools	Prof. M. Balakrishnan	CSE	M/s. Sequence Design India Pvt Ltd, Noida
18	Development of some areas of Biomass to Energy Programmes	Dr. (Mrs) K. Gadgil	CES	M/s. Nagarjuna Chemicals & Fertilizers Pvt Ltd, Hyderabad
19	Noise Filtering and Spectral Estimation Techniques for Passive Sonar Data	Prof. R. Bahl	CARE	NSTL, Visakhapatnam
20	Identification of coupled machinery frequencies from Passive Sonar Data	Dr. Arun Kumar	CARE	NSTL, Visakhapatnam
21	Technology Development cum Transfer Project "Design, Simulation and Characterization of GaAs based Co planar Structures and Air Bridges using GATECH Process"	Prof. S. K. Koul	CARE	Research Centre, Imarat, Hyderabad
22	Measurement and Analysis of Vibration and Noise of a large Capacity Forging Hammer and Formulation of Suitable Isolation Strategies	Dr. Ashish K. Darpe	Mech.Engg	M/s. USK Exports Pvt Ltd, New Delhi
23	Effect of Wind on Fluid Flow and Heat Transfer from natural Convection Air Heat Exchangers	Prof. S. R. Kale	Mech.Engg.	M/s. Indira Gandhi Centre for Atomic Research, Kalpakkam

APPENDIX - III

S. No.	Title	Principal Inventor	Department	Client
24	Water Quantity, Quality and Soils of Water shades due to Plant Operations (evaluation of Hydrogeological System and development of a conceptual flow model	Prof. A.K. Gosain	Civil Engg.	M/s. Coca-Cola India Pvt Ltd, Gurgaon
25	BSIM 4 MOS Model Support in DEDK based Cadence's Pspice Technology	Prof. M. Jagadesh Kumar	Elect. Eng.	M/s. Cadence Design Systems India (P) Ltd, Noida
26	Technology Transfer Audit for Micro controller based Protectiver Days	Prof. Santanu Chaudhury	Elect. Engg.	M/s. C&S Protection and Control Ltd
27	Splicing of Optical fiber in a Diode Pumped Filter Laser	Prof. K. Thyagarajan	Physics	M/s. Continental Device India Ltd, New Delhi
28	Therforming of PP Sheets for Industrial Applications	Prof. A.K. Ghosh	CPSE	M/s. Reliance Industries Ltd, Mumbai
29	Feasibility Study for Purification of 3 Microbial Enzymes	Prof. M.N. Gupta	Chemistry	M/s. Cytogen, New Delhi
30	Devt of Matlab/Octave Modules for Voice/Fax/ Data Discrimination, Fax demodulation & Data Memodulation	Dr. Brijesh Lall	Elect. Engg.	C-DOT, New Delhi
31	To develop Phytase Enzyme for Animal Feed to replace Phosphate	Prof. M.N. Gupta	Chemistry	M/s. Jubilant Organosys Ltd, Noida
32	Hydrological Modelling of Krishna Basin	Prof. A.K. Gosain	Civil Engg.	ISWR, Irrigation & CAD Department, Govt of Andhra Pradesh
33	Master Plan for Bus Rapid Transist System Integrated with Bicycle Network in Pune	Dr. (Ms.) Geetam Tiwari	TRIPP	The Municipal Corp. of the City of Pune

Abbrev:

TRIPP : Transport Research Injury Prevention Programme

CPSE : Centre for Polymer Science & Engineering

CES : Centre for Energy Studies

CARE : Centre for Applied Research in Electronics

CSE : Computer Science Engineering

DBEB : Department of Biochemical Engineering & Biotechnology

APPENDIX - IV

HRD Programmes Undertaken during 2006-2007

S. No.	Title	Principal Inventor / Department	Type of Program
1	Workshop on Design Experiences in Silicon	Prof. Jayadeva, Elect. Engg.	Participation Fee Based
2	Lectures on Telecommunications	Prof. Ranjan Bose, Elect. Engg.	INTECH Instrumentation Pvt. Ltd., New Delhi
3	NP-Completeness & Approximation Algorithms	Dr. Naveen Garg, CSE	M/s Cadence Design Systems (I) Pvt. Ltd.,
4	Value Addition Training Workshop at IITD for TMEs from ARI	Prof. Sunil Pandey, Central Workshop	Applied Research International, New Delhi
5	Advanced Workshop on Training at IITD for ARI	Prof. Sunil Pandey, Central Workshop	Applied Research International, New Delhi
6	Vibration & Noise Control	Dr. A.K. Darpe, Mech. Engg.	Participation Fee Based
7	RF & Microwave Circuit for Radar Applications	Prof. S.K. Koul, CARE	LRDE' Bangalore
8	Modern Concrete Construction Process	Prof. B. Bhattacharya, Civil Engg.	Participation Fee Based
9	Embedded Systems and Applications	Prof. Santanu Chaudhury and Dr. I.N. Kar Elect. Engg.	Participation Fee Based
10	Training Programme in Telecom Technologies	Prof. Subrat Kar, Elect. Engg.	E Value Serve Gurgaon
11	Unix systems/Network services Administration	Dr. (Ms.) Savita Goel, CSC	DIPAC (Defence Services)
12	International Course on Transportation Planning and Safety Modelling and Crash Worthiness	Dr. (Ms.) Geetam Tiwari, TRIPP	Participation Fee Based
13	Asset protect in digital age- An Innovative Information Security Workshop	Prof. S.K. Gupta, CSE	Participation Fee Based
14	International High Performance Computing (HPC) Users Conference on Leadership Computing for Science and Industry.	Prof. S.K. Dash, CAS	IDC/UNISYS
15	Nanotechnology–Current Status and Challenges	Prof. M. Jagadesh Kumar, Elect. Engg & Prof. A.K. Ganguly, Chemistry	Participation Fee Based
16	Workshop on “Theory 7 Algorithms in Combinational Optimization”	Dr. Naveen Garg, CSE	IBM Intl. Business Machines Corporation, NY, USA
17	2 nd Global Land Cover Network Workshop	Prof. A.K. Gosain, Civil Engg.	The Food and Agriculture Organisation of the UN, New Delhi

APPENDIX - V

List of Corporate Members of FITT

Category - A

1. Reliance Industries Ltd	Mumbai	13. Minda Huf Ltd	Noida
2. Pidilite Industries Limited	Mumbai	14. Ranbaxy Laboratories Ltd	Gurgaon
3. Jubilant Organosys Ltd	Noida	15. Dalmia Cement (Bharat) Ltd	N. Delhi
4. Hero Honda Motors Ltd	Dharuhera	16. High Polymer Labs Ltd	N. Delhi
5. NHPC	Faridabad	17. Sona Koyo Steering Systems Ltd	Gurgaon
6. Fibcom India Ltd	Gurgaon	18. Baxter India Pvt Ltd	Gurgaon
7. Larsen & Toubro Ltd	Faridabad	19. BHEL Corporate Research & Development Division	Hyderabad
8. Rico Auto Industries Ltd	Gurgaon	20. Subros Limited	Noida
9. Kanoria Chemical Industries Ltd	N. Delhi	21. Mahindra & Mahindra Ltd	Nasik
10. Munjal Showa Ltd	Gurgaon	22. Core Kosmeticos Ltd	N. Delhi
11. Garware-Wall Ropes Ltd	Chinchwad	23. Arise India Ltd	N. Delhi
12. Arrow International Pvt Ltd (Microtek International Pvt Ltd)	N. Delhi		

Category - B

1. Victor Forgings	Jalandhar	8. Jasch Industries Ltd	Sonepat
2. Frick India Ltd	Faridabad	9. Brakewel Automotive Components (Ind) Pvt Ltd	Noida
3. Gallium Industries Limited	Faridabad	10. Bihani Manufacturing Co. Pvt. Ltd	N. Delhi
4. The Scientific Instrument Co. Ltd	Ghaziabad	11. Tetragon Chemie Pvt. Ltd	Bangalore
5. Wonder Polymers (P) Ltd	Delhi	12. Coreobjects India Pvt. Ltd	Bangalore
6. Escorts Ltd (Railway Equipment Division)	Faridabad	13. Modern Flour Mills Ltd	N. Delhi
7. M.Bit Computraining Pvt. Ltd	N. Delhi	14. Aishwarya Telecom Ltd	Secunderabad

15. Gulshan Sugars & Chemicals	N. Delhi	22. Digicontrols Northern (P) Ltd	Noida
16. Oswal Cable Products	N. Delhi	23. V&M	Gurgaon
17. Khera Plastichem Ltd	N. Delhi	24. Om Paper Krafts (India) Pvt Ltd	Faridabad
18. Malik Polychem Ltd	N. Delhi	25. DCM Textiles	Hisar
19. Honeywell International India Ltd	Gurgaon	26. C&S Protection Control Ltd	N. Delhi
20. Biotech International Ltd	N. Delhi	27. Prakash Diesels Pvt Ltd	Agra
21. Shivalik Bimetal Controls Ltd	N. Delhi		

Category – C

1. New Life Pharmaceuticals	N. Delhi	15. JIJ Financial & Management Consultants (P) Ltd.	Faridabad
2. Allied Alloy Products	Yamuna Nagar	16. BONANZA Consultants	N. Delhi
3. Trak Services (P) Ltd	Noida	17. Seenu Engineering Works	Bhilai
4. National Research Development Corporation	N. Delhi	18. CMDC Design Pvt. Ltd.	N.Delhi
5. NetEdge Computing Solutions Pvt. Ltd	Noida	19. Diamond Auto Industries	Ghaziabad
6. Micromation (P) Ltd	Mohali	20. Sriram Chempro (P) Ltd	Noida
7. Applied Research International	N. Delhi	21. ARAG Biotech Pvt. Ltd	Nagpur
8. Transwitch India Pvt. Ltd	N. Delhi	22. Span International	N. Delhi
9. Allied Industries Ltd	N. Delhi	23. Sifter International	Faridabad
10. Universal Packaging Industries	Yamuna Nagar	24. Global Business Solutions	Chennai
11. Kritikal Solutions Pvt Ltd	Noida	25. S.S.Foundry Chemical Industries Pvt. Ltd	N. Delhi
12. S.S Construction & Engineers	N. Delhi	26. Pluss Polymers Pvt. Ltd	N. Delhi
13. Resistoflex Pvt. Ltd	Noida	27. Om Mid West Industries	N. Delhi
14. Ambala Cements Limited	Jorian	28. Amsaki Homsafe Ltd	Hoshiarpur
		29. Scientific Consulting Company	N. Delhi

30. Shubhkarma Udyog	N. Delhi	35. C3i consultants India Pvt Ltd	N. Delhi
31. Manage Air Products (I) Pvt. Ltd	N. Delhi	36. Indore Colour Organics Ltd	Indore
32. Academy of Industrial Management	N. Delhi	37. MB Educational Concepts Pvt Ltd	N. Delhi
33. R(evolutionary) Designs	N. Delhi	38. Naga Fragrance Pvt Ltd	Dimapur
34. Orthomed Solutions C/o XL-Orthomed (P) Ltd	N. Delhi	39. Faros Simulation Systems Pvt Ltd	N. Delhi

Category – D

1. R & D Centre for Iron & Steel Steel Authority of India Ltd. (SAIL)	Ranchi	6. Dabur Research Foundation	Sahibabad
2. Central Research Laboratory Bharat Electronics Ltd.	Ghaziabad	7. Frigoglass India Pvt. Ltd	Gurgaon
3. Intercontinental Consultants and Technocrats Pvt. Ltd	N.Delhi	8. Senenergy Global Pvt. Ltd	N. Delhi
4. NEDO (New Energy & Industrial Technology Development Organisation)	N. Delhi	9. Vipul Laing O'Rourke Pvt. Ltd	Gurgaon
5. Regional Research Laboratory (CSIR)	Bhopal	10. HQ Technical Group, EME	N. Delhi
		11. Centre for Airborne Systems	Bangalore
		12. Axis Holdings Pvt. Ltd	Mumbai
		13. Sun-Urja Renewable Energy Foundation	N. Delhi



Annual Accounts

FY-06-07

Sandeep Ramesh Gupta & Co. Chartered Accountants

Regd. Office
B-102, East of Kailash
New Delhi - 110065
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Head Office:
90/31B, Malviya Nagar
New Delhi - 110 017
Ph: (91-11) 65648424
Fax: (91-11) 41003436
E-mail: Srgdelhi@rediffmail.com

To
The Trustees
Foundation For Innovation and Technology Transfer
IIT Delhi, Hauz Khas
New Delhi – 110 016

AUDIT REPORT

We have examined the annexed Balance Sheet of M/s Foundation for Innovation and Technology Transfer as at March 31, 2007 and the Income and Expenditure Account for the year ending on that date which is in agreement with books of account maintained by the said institution.

We have obtained all the information and explanations, which to the best of our knowledge and belief were necessary for the purpose of the audit. In our opinion, proper books of accounts have been kept by FITT so far, as appears from our examination of the books.

In our opinion and to the best of our information, and according to information given to us, the said accounts give true and fair view:

1. In the case of the balance sheet of the state of affair to the above named institution as at March 31,2007.
2. In the case of the income and expenditure account, of the income over expenditure for the year ending on March 31, 2007.

For Sandeep Ramesh Gupta & Co.
Chartered Accountants

Place: New Delhi
Date: 16th May, 2007

Sandeep Gupta
M. No. 90039

FY-06-07

FOUNDATION FOR INNOVATION AND TECHNOLOGY TRANSFER

BALANCE SHEET AS AT 31st MARCH, 2007

	Schedule No.	Rs.	31.03.2007 Rs.	Rs.	31.03.2006 Rs.
<u>SOURCES OF FUNDS</u>					
1 Corpus Funds Seed Money			16,200,000		16,200,000
2 Reserves and Surplus	1		32,529,768		26,978,529
3 Research and Devt. Fund	2		28,422,384		27,217,851
			77,152,152		70,396,380
<u>APPLICATIONS OF FUNDS</u>					
1 Fixed Assets	3				
(A) Gross Block		5,785,927		5,649,189	
(B) Less: Depreciation		4,445,198		4,233,652	
(C) Net Block			1,340,729		1,415,537
2 Investments	4		121,350,000		107,500,000
3 Current Assets Loans & Advances	5	9,252,323		6,903,117	
Less : Current Liabilities	6	54,790,900		45,422,274	
Net Current Assets			(45,538,577)		(38,519,157)
Notes on Accounts	11		77,152,152		70,396,380
The schedule referred to above form an integral part of the accounts					

As per our attached Report of even date

Place: New Delhi

Dated: 16-5-2007

Sd/-
for SANDEEP RAMESH GUPTA & CO.
Chartered Accountants

Sd/-
Sandeep Gupta
M No. 90039

Sd/-
K.K. Roy
(Manager Administration)

Sd/-
Anil Wali
(Managing Director)

FY-06-07

INCOME & EXPENDITURE ACCOUNT

FOR THE YEAR ENDED 31ST MARCH, 2007

Particulars	Schedule No.	31.03.2007 Rs	31.03.2006 Rs
INCOME			
Interest	7	8,191,102	8,604,175
Project & Technology Transfer	8	3,369,055	2,963,471
Corporate Membership Fee		464,909	283,000
Other Income		15,288	784,068
		12,040,354	12,634,714
EXPENDITURE			
Establishment Expenses		4,146,586	3,583,005
Patent & Copyright		65,958	31,736
Information Support Services		222,352	288,199
Administrative Expenses	9	1,727,863	1,904,979
Research & Devt Expenses	10	15,420	57,022
Award / Scholarship		40,000	100,000
Promotion Expenses		59,390	32,100
Depreciation		211,546	251,757
		6,489,115	6,248,798
Excess of Income Over Expenditure		5,551,239	6,385,916
Notes on Accounts	11		
The schedule referred to above form an integral part of the accounts			

As per our attached Report of even date

Sd/-
for SANDEEP RAMESH GUPTA & CO.
Chartered Accountants

Place: New Delhi
Dated: 16-5-2007

Sd/-
Sandeep Gupta
M No. 90039

Sd/-
K.K. Roy
(Manager Administration)

Sd/-
Anil Wali
(Managing Director)

FY-06-07

SCHEDULES FORMING PART OF THE BALANCE SHEET

Particulars	Rs.	31.03.2007 Rs	Rs.	31.03.2006 Rs
1 : RESERVES & SURPLUS				
Capital Reserve		2,555,812		2,555,812
General Reserve		24,422,717		18,036,801
Excess of Income Over Expenditure		5,551,239		6,385,916
		32,529,768		26,978,529
2 : RESEARCH & DEVELOPMENT FUNDS				
FITT Project Promotion Fund				
Opening Balance	9,125,599		8,761,555	
Add : Additions during the Year	427,499		364,044	
	9,553,098		9,125,599	
Less : Utilised during the Year	-	9,553,098	-	9,125,599
FITT Consultant Fund				
Opening Balance	6,501,858		6,152,161	
Add : Additions During the Year	1,808,862		1,047,301	
	8,310,720		7,199,462	
Less : Utilised During the Year	869,721	7,440,999	697,604	6,501,858
FITT Department Development Fund				
Opening Balance	5,078,865		4,683,048	
Add : Additions During the Year	1,372,886		691,889	
	6,451,751		5,374,937	
Less : Utilised During the Year	365,423	6,086,328	296,072	5,078,865
Central Admn. Fund				
Opening Balance	-		-	
Add : Additions During the Year	357,646		177,652	
	357,646		177,652	
Less : Utilised During the Year	357,646	-	177,652	-
IIT Student Welfare Fund				
Opening Balance	99,000		99,000	
Add : Additions During the Year	-		-	
	99,000		99,000	
Less : Utilised During the Year	-	99,000	-	99,000

FY-06-07

SCHEDULES FORMING PART OF THE BALANCE SHEET

Particulars	Rs.	31.03.2007 Rs	Rs.	31.03.2006 Rs
TBIU - MCIT Funds				
Opening Balance	6,327,749		2,335,062	
Add : Additions During the Year	4,937		4,467,800	
	6,332,686		6,802,862	
Less : Utilised During the Year	1,308,522	5,024,164	475,113	6,327,749
TBIU - Funds				
Opening Balance	40,007		-	
Add : Additions During the Year	6,452		40,007	
	46,459		40,007	
Less : Utilised During the Year	-	46,459	-	40,007
TBIU - 3% Royalty				
Opening Balance	-		-	
Add : Additions During the Year	82,790		-	
	82,790		-	
Less : Utilised During the Year	-	82,790	-	
TBIU - Deferred Loan				
Opening Balance	44,773		-	
Add : Additions During the Year	44,773		44,773	
	89,546		44,773	
Less : Utilised During the Year	-	89,546	-	44,773
		28,422,384		2,721,7851
4 : INVESTMENTS				
Deposits With Scheduled Bank		83,850,000		70,000,000
RBI Bonds		37,500,000		37,500,000
		121,350,000		107,500,000

FY-06-07

SCHEDULES FORMING PART OF THE BALANCE SHEET

Particulars	Rs.	31.03.2007 Rs	Rs.	31.03.2006 Rs
5 : <u>CURRENT ASSESTS, LOANS AND ADVANCES</u>				
Balance with Scheduled Bank				
Canara Bank		1,086,170		1,623,917
SBI		3,922,174		2,503,674
SBI Fcra Account		946,779		380
Tax Deducted at Source		2,077,177		1,402,381
Development Support		19,757		494,775
Project Advance		1,105,045		820,506
Security Deposit		19,087		19,087
Staff Advance		76,134		38,397
		9,252,323		6,903,117
6 : <u>CURRENT LIABILITIES</u>				
Advance Against Projects		54,790,900		45,422,274
		54,790,900		45,422,274
7 : <u>INTEREST</u>				
Interest on Banks Deposits / Bonds		7,850,550		8,192,618
Interest on Savings Account		340,552		411,557
		8,191,102		8,604,175
8 : <u>PROJECTS & CONSULTANCY INCOME</u>				
FITT Overhead Charges		2,215,255		1,250,226
Seminar/Workshops/HRD Prog.		644,978		1,260,484
Royalty Income		508,822		452,761
		3,369,055		2,963,471

FY-06-07

SCHEDULES FORMING PART OF THE BALANCE SHEET

Particulars	Rs.	31.03.2007 Rs	Rs.	31.03.2006 Rs
9 : ADMINISTRATIVE EXPENSES				
Communication		130,450		209,224
Legal & Professional		50,761		151,980
Books & Periodicals		2,737		11,918
Printing & Stationery		113,922		71,245
Conveyance		91,472		25,327
Seminar & Meeting Expenses		79,101		87,992
Travelling Expenses		16,126		14,129
Contingent Expenses		53,706		78,418
Repair & Maintenance		440,345		83,716
Audit Fees		13,200		13,224
Recruitment & Training Expenses		5,053		370,300
Office Rent		526,848		597,456
Bank Charges		1,460		3,521
Electricity Charges		202,682		186,529
		1,727,863		1,904,979
10 RESEARCH & DEVT. EXPENSES				
Devt Support		-		41,579
TBIU Account		15,420		15,443
		15,420		57,022

SCHEDULES FORMING PART OF THE BALANCE SHEET

3: FIXED ASSETS										
S.No.	Asset	Rate	Gross Block			Depreciation			Net Block	
			As on 1.4.2006	Additions in 2006-2007	Total	Upto 1.4.2006	For the Year	Total	As on 31.03.2007	As on 31.03.2006
1	Computers	60%	1,836,860	118,058	1,954,918	1,800,382	58,924	1,859,306	95,612	36,478
2	Furniture & Fixtures	10%	1,547,129	-	1,547,129	1,036,021	51,111	1,087,132	459,997	511,108
3	Air Conditioners	15%	370,500	-	370,500	327,749	6,413	334,162	36,338	42,751
4	Photocopier	15%	203,175	-	203,175	190,312	1,929	192,241	10,934	12,863
5	Projector	15%	22,960	-	22,960	22,324	95	22,419	541	636
6	Office Equipments	15%	816,565	18,680	835,245	631,161	30,444	661,605	173,640	185,404
7	FITT Extn. Office	10%	232,000	-	232,000	61,459	17,054	78,513	153,487	170,541
8	TBIU Office Module	10%	620,000	-	620,000	164,244	45,576	209,820	410,180	455,756
	Total		5,649,189	136,738	5,785,927	4,233,652	211,546	4,445,198	1,340,729	1,415,537

FY-06-07

11. NOTES ON ACCOUNTS

1. SIGNIFICANT ACCOUNTING POLICIES

i) **Accounting Convention**

The Financial Statements are prepared under the Historical Cost Convention.

ii) **Method of Accounting**

All accounts are maintained on cash basis.

iii) **Fixed Assets And Depreciation**

Fixed assets are valued at cost and Depreciation on fixed assets is provided on Written Down Value method in accordance with the rates and provisions of the Income Tax, 1961.

iv) **Revenue Recognition**

Income on projects undertaken is recognized on the completion of the project. Income from Consultancy, Seminars, Retainerships etc. is recognised on rendering of the service and receipt of the fees.

v) **Investments**

Investments are valued at cost.

2. Equipment purchased for the project becomes the property of the IIT(D) on the conclusion of the project as per FITT's "Guidelines for handling consultancy proposals".
3. FITT has received a grant of Rs.80 lakh from Ministry of Communication and Information Technology for supporting entrepreneurship. Rs.34.57 lakh has been utilised towards sanctioned loan and other administrative expenses. Actual disbursement of loan (net of loan recovered) against the sanctioned loan is Rs. 22.98 lakh.
4. Previous year's figures have been regrouped/reclassified wherever considered necessary to make them comparable with those of the current year.

As per our attached Report of even date

Sd/-
for SANDEEP RAMESH GUPTA & CO.
Chartered Accountants

Place: New Delhi
Dated: 16-5-2007

Sd/-
Sandeep Gupta
M No. 90039

Sd/-
K.K. Roy
(Manager Administration)

Sd/-
Anil Wali
(Managing Director)







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