

Annual Report



2008-2010



Foundation for Innovation and Technology Transfer



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Director's Report

The year 2010 marks a glorious chapter in IIT Delhi's eventful journey as from August'10 begins its Golden Jubilee Year. This is a proud moment for all of us at FITT too. Ever since its establishment in 1992, FITT has been devising innovative ways to create partnerships and linkages with industry and community. The highly motivated team at FITT and top notch academics of IIT Delhi (IITD) have been largely responsible for our successful efforts at connecting ideas with business and people with technology.

The fascinating role of FITT can be seen in enabling business partnerships, development projects, industrial consultancy, professional development programs, industry visits, event participation, corporate membership etc. This is necessitated by the key agenda of the Foundation to showcase and then transfer the Institute "intellectual ware" to industry and also inspire industrial relevance in IITD's teaching and research. Importantly, FITT offers flexible and convenient interactive formats to the end users. The newsletters of FITT showcase the best IITD has to offer in terms of expertise, technologies and infrastructure as well as opportunities that exist for realization of research.

While the world has been witness to many changes on the technological and economic horizon, India too has climbed the global economic bandwagon with significant say in various world issues of trade, security, environment etc. Interestingly, in the expanding and ascending economic trajectory of our country, the need for quality manpower and innovation capacity cannot be ignored. The HEIs have a tremendous responsibility in this regard. Besides others, this calls for strong Government- Academia-Industry engagement. Working at the interface of business and research, FITT indeed has been at the forefront of facilitating the change process at IITD by giving boost to partnerships and the innovation process. We have filed over 220 patents till date and 35 more are in the process of being filed. To encourage entrepreneurship based on technological innovation, a partnership mechanism exists in the Institute in the form of Technology Business Incubation Unit being operated by FITT. As on March 2010, there were 11 resident technology start-up companies out of the 29 units admitted since the launch of this program. Appin, EnNatura and CarePro are the start-ups that have made successful exits this year for their scale-up and commercialization operations. The Government support programs through DIT, DSIR and MSME are being facilitated by FITT for fostering innovations and entrepreneurship and we see a lot of interest amongst the targeted group. The professional candidate registration program for focused knowledge augmentation continues to attract interest from amongst the neighboring industries and research organizations for their qualified professionals.

FITT primarily utilizes the resources and infrastructure of IIT Delhi. Despite a smaller percentage of the Institute faculty members involved in working with industry, proactive and energized efforts at FITT are seeing increasing interest amongst the faculty with concomitant increase in the value of the contracted projects and professional development programs being administered. It has been a story of continuous growth during the last three years with our 'top line' having crossed 10 crore for the first time ever. This is encouraging yet, challenging us to attain higher levels of efficiency and effectiveness in our stated mission. We keep on strategizing for increased value creation and thus maintain our special position at IIT Delhi.



Key Activities, Projects and Initiatives

A. Outreach and collaboration

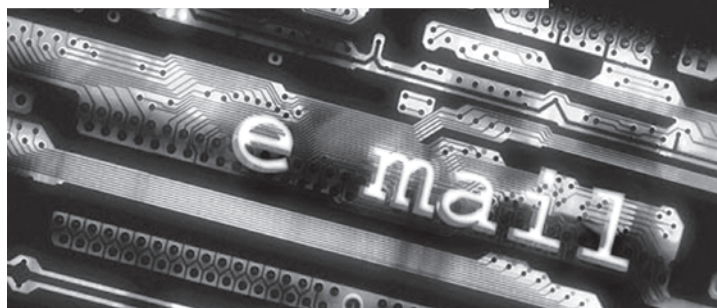
There has been significant enhancement in the level of engagement wherein FITT reached out to the business and community. Our partnership with industry and other organizations was strengthened by rejuvenated efforts towards various developmental and networking opportunities.

1. The biennial FITT newsletters – FITT FORUM and FITT TECHNOPRENEURSHIP BULLETIN serve as our information diffusion channels addressing inter alia, contemporary technical issues, new developments and available opportunities for collaboration, support for entrepreneurship. The information reaches a wide spectrum of several hundred industries, R&D organizations, Government Agencies, Academic Institutions and others.
2. FITT facilitates the visit of Institute researchers to industry units. Moreover, industry representatives are regularly invited to make presentations to faculty groups in the Institute, highlighting their priority R&D areas and opportunities for collaborative work with IIT Delhi. There has been notable increase in the level of

engagement for R&D collaboration or exploratory study carried out under the aegis of FITT. During the year 2009-10, there have been a number of visits made by senior people to FITT from organizations like Goodyear, DuPont India, Army Technology Centre, Escorts, IITCOE, General Electric, L'Oreal Research etc. FITT also arranged faculty visit to industries like Escorts, Schiender India, ECE, C&S Protection etc.

Organized by FITT

- FITT in association with TiE Delhi Chapter and IIT Delhi Alumni Association organized a seminar on the topic "Growing from Millions to Billions & Internationalization Strategies" on 11th November 2009 at Vishwakarma Bhawan, IIT Delhi. Prof. George Foster from the Stanford Business School and Adj. Prof. (Dr.) Martin





Haemmig, Sr. Advisor on Venture Capital, Stanford University & WEF were the key speakers at the seminar.

- FITT was a lead partner in the National Geographic Channel's Nationwide programme "Shaping the Future". The Delhi City final was organized by FITT on November 14, 2009 at IIT Delhi. The National Final of this all India innovation / idea competition was held on January 5, 2010 at IIT Delhi.
- FITT partnered with Indian Angel Network (IAN) in organizing the Zonal Finals of the nationwide business plan competition "Wagon R Think Big Challenge" at IIT Delhi on January 13, 2010.
- FITT organized the ISBA Conference 2010 during February 8-10, 2010 at the India Habitat Centre, New Delhi under sponsorship of Department of Scientific & Industrial Research, GoI, New Delhi
- FITT organized the 2nd Chemical Industry-Academia Meet 2010 at IIT Delhi on March 29, 2010

Conferences / Visits

Dr. Anil Wali, MD, FITT was a keynote speaker / panelist at several conferences like

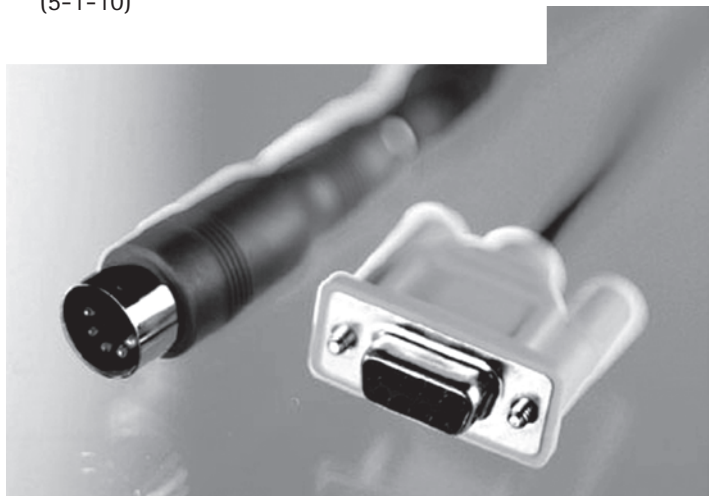
- Green Chemistry Conference at Mumbai during April 15, 2009.
- The WIPO Conference on Intellectual Property during November 11 – 13, 2009.
- Seminar on developing "Delhi as a knowledge Capital" on November 18, 2009 organized by the Delhi Technological University, Delhi.
- Seminar on creating a knowledge sharing and

networking platform for the SME sector titled "Envisioning the Wired SME's on November 28, 2010.

- Seminar on "Technology" at the Defence Institute of Advanced Technology, Pune.
- Stakeholder workshop on "IPRs in Nanotechnology: Issues, Trends and Challenges for India" organized by the TERI during January 28, 2010.
- Mr. K.K. Roy, Sr. Manager (Tech.) had been invited by Vice Chancellor of the Royal University of Bhutan to visit (March 9 – 15, 2010) some of the technical management institutes in Bhutan for interaction with faculty and students to promote technopreneurship.
- Mr. K.K. Roy, Sr. Manager (Tech.), FITT was sponsored by the Asian Productivity Organization (APO) on a Study Mission to Germany on Knowledge Creating Enterprises during April 25, 2009 to May 1, 2009.

Miscellaneous

- A. Dr. Anil Wali acted as a member of the Jury at:
 - Grand Finale of "International Entrepreneurship Challenge" at FMS, Delhi University (5-12-09) covered by Bloomberg UTV
 - National Finals of "Shaping the Future" (5-1-10)



- "Wagon R Think Big Challenge" with Indian Angel Network (13-1-10) covered by CNBC.

B. Technology and Consultancy

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 IP cases for registration and maintenance. Bulk of actual filings, though are outsourced to PFC at TIFAC. However, of late securing IP or IP investments has been taken up in association with specialist firms like Intellectual Ventures and Imperial Innovations India. The list of IPR applications approved for filing during 2009-10 is given in Appendix I. 28 out of 41 IPR applications were initially considered for IP registration.

FITT is mandated to transfer technologies developed at IITD for commercialization. During the current financial year FITT has licensed five technologies (Appendix II) and is working on a few more.

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 investigative projects. Such projects 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 2009-10 82 technology development / transfer projects worth Rs. 990.78 Lakhs have been contracted.

C. Innovation and Enterprise

FITT has assisted in establishing the Technology Business Incubation Unit (TBIU) at the Institute

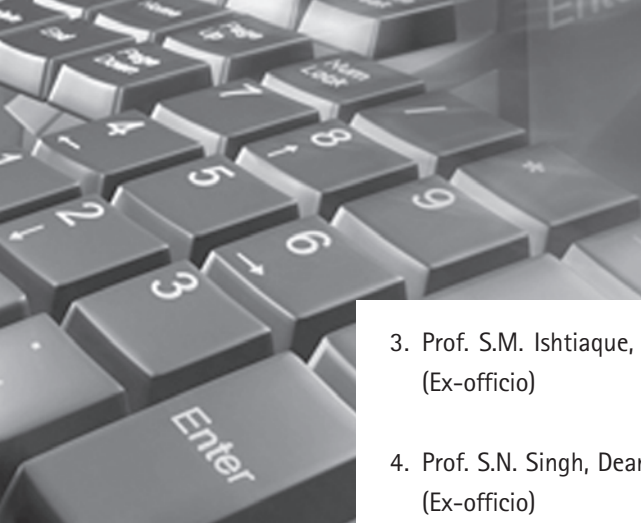
Campus. The objective of the TBIU is primarily to promote partnerships with new technology entrepreneurs and start-up companies. As part of the TBIU program, subsidized modular space is provided to new entrepreneurs, first generation start-up companies or technology based organizations for setting up 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 Institute, and ii) incubating novel technology and business ideas into viable commercial products or services.

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 exists homology with the Institute.

The responsibility of administration and day-to-day management of TBIU is vested with FITT. An institute level empowered committee (known as TBIU Board) oversees the functioning of the program. Besides the ex-officio institute officials, the TBIU Board includes senior industry / professional representatives. The current Board comprises of:

1. Prof. Surendra Prasad, Director, IIT Delhi
Chairman (Ex-officio)
2. Prof. M. Balakrishnan, DD(F), IIT Delhi Member
(Ex-officio)





3. Prof. S.M. Ishtiaque, DD(A), IIT Delhi Member (Ex-officio)
4. Prof. S.N. Singh, Dean (IRD), IIT Delhi Member (Ex-officio)
5. Prof. D.T. Shahani, Chairman (E&W), IIT Delhi Member (Ex-officio)
6. Mr. Ajay Choudhary, Chairman & CEO, M/s HCL Infosystems Ltd., Noida, Industry Representative
7. Mr. Goptal G. Patwardhan, Chairman, M/s Autoline Industries Limited, Industry Representative
8. Mr. Mohit Goyal, Director & Promoter, M/s Knowcross Solutions Pvt Ltd., Industry Representative (Finance / Investment)
9. Dr. Anil Wali, MD, FITT Member-Secretary (Ex-officio)

Another high level committee the Standing Screening Committee screens and evaluates the incubation proposals from innovators / start-ups for admission to the TBIU. The Standing Screening Committee comprises both senior faculty scientists and industry experts to ensure due diligence of the technology business incubation proposals.

An approximate area of 6000 sq. ft. on the campus is earmarked for the TBIU which includes modular office spaces, 30-seat Conference Room, Meeting Room and a separate Reception and Business Centre with common facilities appropriately equipped.

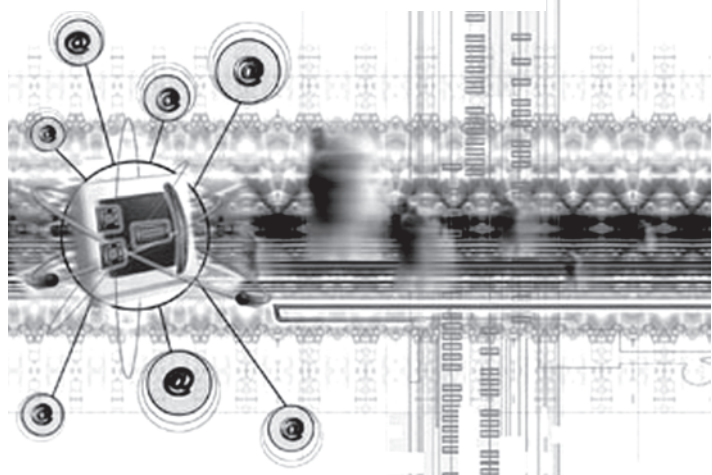
The following incubatae members who are

currently occupying the incubator centre here include:

1. M/s Advantage Organic Naturals Technologies Pvt Ltd (Faculty/Alumni: Prof. M.L. Gulrajani, Ex-faculty, IIT Delhi; Mr. Rajiv Rai Sachdev, MD)
2. M/s Gram Vaani Community Media Pvt Ltd (Faculty/Promoter: Prof. Huzur Saran, CSE; Dr. Aaditeswar Seth, CEO)

The unit entered the TBIU in the month of March 2009. The start-up is pursuing development of various garments embedded with natural dyes with medicinal properties using technologies developed by six faculty members in the Textile Technology Department (involved in the start-up). The start-up is hopeful of earning carbon credits for use of natural dyes, low temperature and low wastes in the processes employed. It has secured an Indian patent for its technology.

The unit entered the TBIU in December 2008. The start-up has developed transmission box for community radio broadcast network and is working at the pilot scale. Services provided over community radio include community engagements, interactive sessions, casting a vote, education / knowledge dissemination to the rural community/farmers etc.



3. M/s Sunurja Renewable Energy Pvt Ltd
(Faculty/Alumni: Prof. A.K. Agarwala, IDDC
Dr. Ashish Pandey, CEO)

This unit entered the TBIU in the month of September 2008. The main focus of the company is on design and development of Renewable Energy Solutions. The company has licensed its technology for commercialization of inverters.

4. M/s Innovative Transport Solutions Pvt Ltd
(Faculty/Alumni: Dr. (Ms.) Geetam Tiwari, TRIPP;
Dr. (Ms.) Anvita Arora, CEO)

The unit entered the TBIU in the month of September 2008. The main focus of the company is on scientific and technical solutions for traffic and transport systems and development of models for sustainable transport in cities.

5. M/s Global Motortech Pvt Ltd (Faculty/Promoter:
Prof. K.R. Rajagopal, DEE)

The start-up has ventured into products/services leveraging the promoter's core competencies in Motor Design & Analysis Software. It is focused on technologies for motor based equipment and achieved success in few products like low watt, ceiling fan, micro-throttle based switch motor etc.

6. M/s Faros Technologies Pvt Ltd
(Faculty/Alumni : Prof. S. Mukherjee, DME; Mr.
Ravi Kapoor, CEO)

The unit entered the TBIU in December 2008.

The faculty – alumni promoted unit is into development of simulator sub components, simulators and providing simulation services.

7. M/s HTech Handstalk Technologies Pvt Ltd
(Faculty/Alumni : Prof. Anurag Sharma, Physics
Department; Mr. Avinash Saxena, CEO)

The unit entered the TBIU in June 2009. The start-up is working on integration of an improved mouse pad more suitably on the keyboard which would enhance its efficiency. The start-up has been supported under TePP and TIDE schemes of Govt. of India.

8. M/s Yonyx Technologies Pvt Ltd (Faculty Prof.
Sandeep Sen, CSE; Mr. Sanjay Bajaj, CEO)

The unit entered the TBIU in April 2010. The start-up is focused on building teacher replication platform technology that enables teachers to package instruction with predicted student interaction, into self learning module. The learning modules are then made available on web based market place where students can buy such modules.

9. M/s Innovative
Mechatronics
Solutions Pvt Ltd
(Faculty Dr. Sunil Jha, DME)

The faculty promoted start-up envisions excellence in design, development and manufacture of micromachining system, mass production of finishing processes and Mechatronic embedded systems. The targeted products for development are (i) Universal Micromachining System, (ii) Magnetorheological mass product finishing machine and (iii) Wireless ODR System.

10. M/s Simplifey Softwares Pvt Ltd
(Faculty : Dr. Anurag Rathore, Chemical
Engineering; Mr. Anshuman Bansal, CEO)

The start-up entered the unit in June 2010. The technology business by the start-up envisages a user friendly operating platform for





biopharmaceutical manufacturers to capture, share and analyze information from biopharmaceutical processes (a KM Tool that empowers an industry unit to improve process development).

11. M/s Shalya Technologies Pvt Ltd
(Faculty : Prof. Naresh Bhatnagar, Mechanical Engineering; Mr. Rajat Jain, CEO)

The start-up entered the unit in February 2010. The technology business by the start-up aims to focus on design and development of medical implants which includes Product Development (Medical implants and accessories) and Process Development (Manufacturing, Testing).

Towards leveraging the Institute's forward looking agenda, FITT has adopted several programmes to enrich the entrepreneurial ecosystem and technology commercialization efforts at the Institute. Mention, in particular, may be made of 'Technopreneur Promotion Programme' (TePP) of DSIR, Govt. of India under which individual innovators / start-ups can seek critical financial support. Seed support in the broad area of IT is also forthcoming under the Dept. of Information Technology (DIT) programme – "Technology Incubation and Development of Entrepreneurs" (TIDE) scheme in operation with FITT. Similarly, the MSME scheme "Entrepreneurial and Managerial Development of SMEs through Incubators" has been dovetailed with the incubation programme at the Institute to promote emerging technological and knowledge-based innovative ventures that seek the nurturing of ideas from professionals beyond the traditional activities of MSMEs.

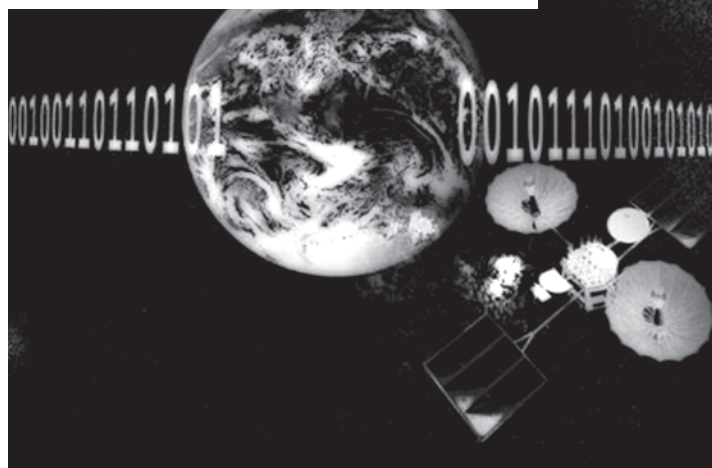
D. Professional (HR) Development Programmes

a. Continuing Education for Industry has been

a sustained activity and an important focus areas of FITT. During 2009-10, 36 number of HRD programs held with participation from industry were at the gross value of Rs. 152.66 Lakhs. Appendix IV lists various such programs undertaken by FITT during the year 2009-10.

b. Consistent with FITT objectives towards knowledge transfer, a program 'Professional Candidate Registration' has been initiated towards outreaching the academic options amongst the targeted professional segment in industry, research and academia. Through this program suitably qualified candidates can undertake relevant professional course modules here at IIT Delhi and thus enhance their knowledge and skill set. A total of 76 candidates participated in this programme during I & II Semester 2009-10. The gross value of Rs. 11.55 Lakhs was generated from this Programme. This is a programme that promises good potential in the targeted Delhi NCR region.

c. 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 2009-10 is Rs. 13.06 Lakhs.



E. Corporate Membership

A key objective of FITT is to have formal and effective relationship with the industry 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 annual fees. At present FITT has over 120 corporate members who are in regular receipt of information about Institute programmes and other opportunities for collaboration. The corporate members enjoy a variety of complimentary services and opportunities for partnership. The list of Corporate Members of FITT as on June 30, 2010 is given in Appendix V.

F. FITT Awards

Foundation for Innovation and Technology Transfer (FITT) has instituted two awards, one each for Ph.D. and M.Tech./M.S. ® projects adjudged as the best Industry Relevant Projects.

The M.Tech award was equally shared by :

Mr. Abhijay Awasthi, Student of M.Tech (Dual Degree) Programme, for his work "Hydrogen Production by Porous Exchange Membrane Water Electrolysis: Numerical and Experimental Investigations" and his faculty supervisor Prof. S. Basu, Deptt. of Chemical Engineering, IIT Delhi

G. National Technology Day

FITT organized the National Technology Day on 12th May 2010 in the Senate Room of the Institute with a

well attended seminar meeting in the Senate Room of the Institute. The function was organized under the aegis of FITT. Prof. Surendra Prasad, Director, IIT Delhi presided over the function. Prof. K.R. Rajagopal, Department of Electrical Engineering, Dr. Aaditeshwar Seth of M/s Gram Vaani Community Media Pvt Ltd, Mr. Ravi Kapoor of M/s Faros Technologies Pvt Ltd and Mr. Dipender Sekhon of M/s KritiKal Solutions Pvt Ltd were the speakers on the occasion.

H. Recognition

FITT is a recognized (by DSIR) as Scientific and Industrial Research Organization (SIRO). As a SIRO, FITT is eligible for full custom duty exemption for import of capital goods, raw materials and technology knowhow that are required for execution of R&D programmes sponsored by the Industry.

FITT also functions as the recognized TUC-TePP Outreach Centre of DSIR for its Technopreneur Promotion Programme (TePP). Towards accomplishment of the programme objectives, FITT organized several awareness workshops disseminated promotional materials, processed applications for TePP support and got several proposals technically evaluated.



Organization

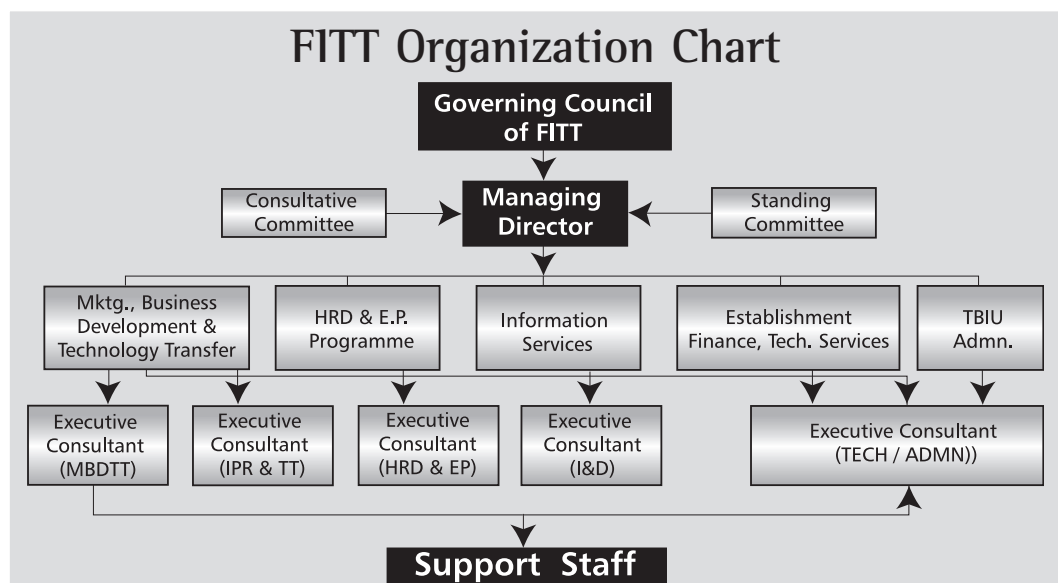
Organization Structure

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 organization structure is given in the organizational chart in this section.

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 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

Chairman

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

Members

Prof. S.N. Singh Dean (IRD) IIT Delhi	Prof. Saroj Mishra DBEB IIT Delhi	Prof. Dinesh Mohan CBME IIT Delhi	Prof. R. Bahl CARE IIT Delhi
Prof. P.L. Dhar DME IIT Delhi	Mr. Jasmohan Singh MD, Frick India Ltd. New Delhi	Mr. Umesh Anand Jt MD, HPL Additives New Delhi	Dr. George John Addviser, DBT IIT Delhi
	Mr. Ravi Kapoor MD, Faros New Delhi	Mr. Rakesh Rewari Dy. MD, SIDBI Mumbai	
Dr. A. Wali Member-Secretary Managing Director, FITT (ex-officio)			

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 Advisory Council of FITT.

Dr. A. Wali

MD, FITT, Chairman

Members

Mr. Vinod Sharma MD, Deki Electronics Ltd. Noida	Mr. Madhukar Kapur CEO, C&S Electric Ltd New Delhi	Mr. V S Goindi Chairman, Goindi Group Ghaziabad	Dr. R K Malhotra Director (R&D) IOC, Faridabad
Dr. Pradip K Bhatnagar Sr. VP, Ranbaxy Laboratories Gurgaon	Mr. Anjan Das Sr. Director, CII New Delhi	Mr. H R Vaish Secretary IIT Delhi Alumni Association	Prof. B Jayaram Chemistry IIT Delhi
Prof. A K Gosain DCE IIT Delhi	Prof. A N Bhaskarwar Chemical IIT Delhi	Prof. A K Ghosh AD (IRD) IIT Delhi	Prof. B P Pal Physics IIT Delhi
Prof. S R Kale DME IIT Delhi	Prof. Arun Kumar CARE IIT Delhi	Mr. K K Roy Senior Manager, FITT Member Secretary	Invitees Core Professional of FITT



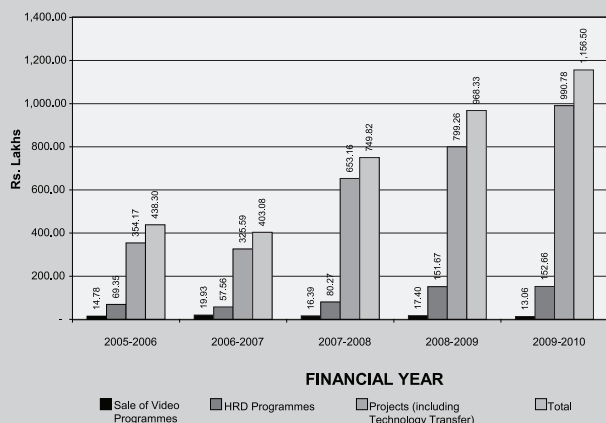
Financial Highlights

(Figures in Rs. Lakhs)

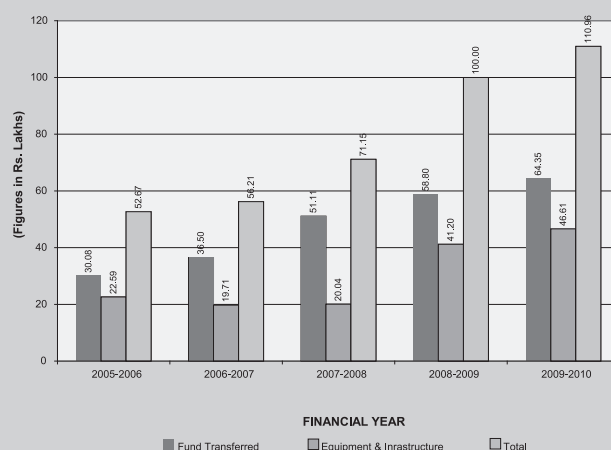
	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10
Bank deposits and Bonds	883.50	1,075.00	1,213.50	1,438.50	1,738.50	2,228.50
Earnings						
(i) Interest	55.34	86.04	81.91	108.96	136.22	176.91
(ii) Projects/Other Activities	24.31	29.63	33.69	41.21	40.48	51.85
(iii) Corporate Membership Fees	2.28	2.83	4.64	4.74	4.00	4.36
Expenditures						
(i) Capital	0.77	1.50	1.37	0.19	2.85	1.79
(ii) Operational/Promotional/ Administrative	61.16	54.00	57.51	57.21	87.00	112.31
(iii) Rent for Office Premises (Payable to IIT Delhi)	8.09	5.97	5.27	5.27	5.27	5.27
Fund for Transfer to IIT Delhi (Project Activities)	27.34	30.08	36.50	51.11	58.80	64.35
Assets Generated for IIT Delhi out of project activities administered by FITT	38.61	22.59	19.71	20.04	41.2	46.61
Value of Projects Contracted/ Other Activities at FITT	298.51	438.30	403.08	749.82	968.33	1,156.50

ANNEXURES

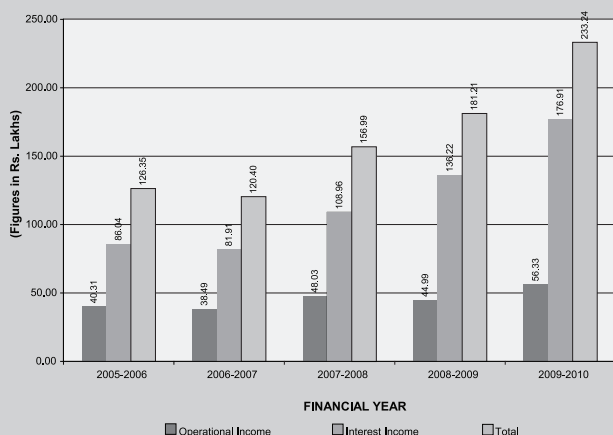
VALUE OF MAJOR ACTIVITIES UNDERTAKEN BY FITT



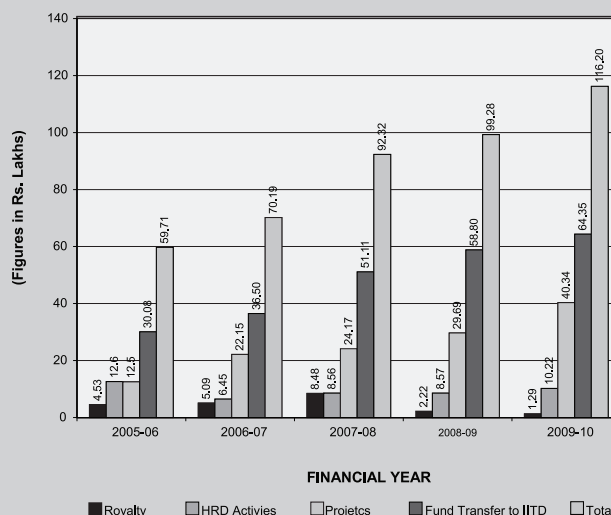
ASSETS GENERATED FOR IIT DELHI



INCOME PROFILE OF FITT



RESOURCE GENERATION FOR FITT & IIT



APPENDIX - I

List of IPR Applications Approved by IITD IPR-SC during the Financial Year 2009-2010

S. No.	Title	P.I. / Deptt.
1	Controller for a Wind Energy Conservation System employing Squirrel Cage Induction Generator for feeding local loads	Prof. B Singh, DEE
2	Controller for a Wind Energy Conservation System employing Doubly Fed Induction Generator for feeding local loads	Prof. B Singh, DEE
3	Light weight offset knee joint for above-knee amputees	Prof. N Bhatnagar, ME
4	Multi-functional knee joint of FRP composites for polio and cerebral palsy patients	Prof. N Bhatnagar, DME
5	A convenient method for the synthesis of nano-rods of Lanthanum Hexaboride (LaB ₆)	Prof. AK Ganguly, CHY
6	A system for error correction, for low power VLSI	Prof. Jayadeva, EE
7	An Optical Switch for Fault Tolerant routing of Data / Communication in 4*4 network.	Prof. D Chadha, EE
8	Measuring Tape for Visually Impaired	Prof. SK Atreya, IDDC
9	A Process for generating magnetically controlled ball end for smart abrasive finishing of intricate 3D surfaces	Dr. S Jha, ME
10	A Locking System for Hinges	Prof. A Chawla, ME
11	A Hinge Joint System	Prof. A Chawla, ME
12	A system and method for creation of labels for authentication and verification of valuable objects for easy authentication and integrity checks	Prof. BN Jain, CSE
13	An apparatus for measuring Fabric Handling Value	Dr. A Das, TT
14	A method for creating three dimensional objects using their shadow characteristics.	Dr. N Mitra, EE
15	Different configurations and designs of Bollards for specific applications viz. wheel chair	Dr. A Singh, IDDC
16	Kyphomulator – Body storming simulator for Kyphosis condition	Dr. A Singh, IDDC
17	Scooter shaped toilet seat for children	Dr. A Singh, IDDC
18	A sanitary fitting Urinal Trap for making Waterless Urinals for odourless disposal of urine.	Dr. VM Chariar, CRDT
19	Pre-fabricated urinal kiosks	Dr. VM Chariar, CRDT
20	A Novel Self-Excited Brushless Single Phase Induction Generator (SEIG) integrated with robust automatic electronic voltage regulator	Prof. SS Murthy, EE

S. No.	Title	P.I. / Deptt.
21	A novel closed loop speed control using carrier space vector pulse width modulated direct torque control scheme for induction motor drive	Prof. JK Chatterjee, EE
22	A Voltage and frequency control of self excited induction generator (brushless generator) in isolated three-phase four-wire system under balanced and unbalanced operations	Prof. JK Chatterjee, EE
23	Design of a reaction chamber for glow discharge cold plasma on textile substrates in a continuous manner	Prof. AK Agrawal, TT
24	Flexoport - a multipoint foldable extension board that is flexible and easy to carry, for charging of small electronic devices.	Dr. (Ms.) D Gupta, TT
25	Three independent designs of a squatting type urinal pan for women.	Dr. VM Cheriar, CRDT
26	Fixation of silver nanoparticle on textile substrates for durable antimicrobial finish	Prof. AK Agrawal, TT
27	Synthesis and application of a stable titania aqueous nanosol on textile substrates	Prof. AK Agrawal, TT
28	PCT application "NTBI Kit for detection of iron overloads in humans"	Dr. (Ms) N Karmakar, CBME

APPENDIX - II

IP for Licensing during the Financial Year 2009-10

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	Raghnath Bio Energy Pvt. Ltd., New Delhi
2	RF Magnetron Target Holder	Prof. S Chandra	CARE	Vacuum Equipment Co., Noida
3	Selective and Sensitive detection of mercuric ION by Novel Dansyl-Appended Calix[4]arene molecules via fluorescence quenching	Dr S Pandey	CY	Intellectual Ventures Asia Pte Ltd., Singapore
4	An Apparatus and Method for Packet Error Correction in Networks	Prof R Bose	EE	Intellectual Ventures Asia Pte Ltd., Singapore
5	System and Method for decorticating hard shell seeds and fruits	Prof S N Naik	CRDT	Swaraj Herbal Plans Pvt. Ltd., Barabanki, U.P.

APPENDIX - III

Selected Development Projects during the Financial Year 2009-2010

S. No.	Title	P I	Deptt/Centre	Client
1	UWB RF Board Testing	Prof. Ranjan Bose	EE	Virtual Wire Technologies Pvt Ltd., New Delhi
2	Design of STP / ETP for M.A. Medical College Agroha	Dr A K Mittal	CE	Maharaja Agrasen Medical College, Agroha
3	Technical design guidance for personal and beauty care delivery and dispensing systems	Prof S R Kale	ME	Zen Design Solutions Limited, New Delhi
4	Development of processes for purification of antibodies from biological fluids including fermentation broths & kits related to the above	Prof M N Gupta	CY	V B Medicare Pvt. Ltd., Hosur
5	Analysis of design of bush bearing/pins on backhoe loader 3DX	Dr R K Pandey	ITMMEC	JCB India Limited, Ballabgarh
6	Comparative study of polyolefin – processing and property evaluation	Prof V Choudhary	CPSE	IOCL, (R&D Centre), Faridabad
7	Studies and analysis of thermal conductivity of friction materials	Prof J Bijwe	ITMMEC	Allied Nippon Ltd., Ghaziabad
8	Thermoforming of PP sheets for industrial applications	Prof A K Ghosh	CPSE	Reliance Industries Ltd., Mumbai
9	Studies on Poly (Vinyl Acetate) prepared using varying reaction conditions	Prof V Choudhary	CPSE	Jubilant Organosys Ltd., Noida
10	Designing a touring bike for Himalayas	Dr Amitoj Singh	IDDC	Royal Enfield, Eicher Motors Ltd., Chennai

S. No.	Title	P I	Deptt/Centre	Client
11	Design and development of MEMS Phase Shifter and SPDT Switch	Prof S K Koul	CARE	Astra Microwave Products Ltd., Hyderabad
12	Structural Design of Housing for Defence personnel at Shillong DGMAP – Misc Services	Prof A K Jain	CE	GGM, RITES, Gurgaon
13	Preliminary study of possible avenues for combustion of low calorific value flue gas	Prof Anjan Ray	ME	Oil & Natural Gas Commission (ONGC), Delhi
14	Studies and analysis of thermo-physical behavior of Railway brake-blocks	Prof J Bijwe	ITMMEC	Industries Consortium
15	Comparative assessment of (i) Biomass and fossil fuels in generation of heat (boilers and heaters) and (ii) Waste heat recovery vapour absorption machines (VAMs) and electrically operated vapour compression machines (VCM)	Prof S R Kale	ME	Thermax Ltd., Pune
16	Licensing of softwares: (i) Sanjeevini – A Computer Aided Drug Design (CADD) methodology (ii) Bhageerath – A Computational pathway towards predicting 3D structure of small globular proteins (iii) ChemGenome – A three vector model for analyzing DNA sequences	Prof B Jayaram	CY	LeadInvent Technologies Pvt. Ltd. – a TBIU (IITD) start-up Co.
17	Development of RF components and setting up of RF Laboratory	Prof S K Koul	CARE	Institute of Engineering & Technology-Alwar
18	Effect of a Methaplast on production of biogas under representative Indian condition	Dr V K Vijay	CRDT	DSM Anti-infectives India Ltd, Gurgaon
19	Development of RF Components and setting up of RF Laboratory	Prof S K Koul	CARE	Geetanjali Institute of Technical Studies, Udaipur

S. No.	Title	P I	Deptt/Centre	Client
20	UWB RF Board testing and evaluation	Prof Ranjan Bose	EE	Virtual Wire Technologies Pvt Ltd., New Delhi
21	Technical opinion about Rough Ophthalmic Glass Blank (Photochrom)	Prof B P Pal	PH	Corning SAS India Branch Office, Gurgaon
22	User-centered Reasoning and Acquisition System	Prof. K K Biswas	CS	Evalueserve Pvt Ltd., Gurgaon
23	Potential of Fuel Cell technology in India	Prof S Basu	CH	NEDO, New Delhi
24	Occupant protection on Railway Rolling Stock – Simulation, Modelling techniques and usage of Dummies	Prof Anoop Chawla	ME	Rites Ltd, Gurgaon
25	Recovery of heat and water by condensation of steam from Decoloriser (Line-II) & Dryer (Line-I) (Phase-II)	Prof. PMV Subbarao	ME	Grasim Industries Ltd., Jodhpur
26	Development of technology for commercial scale manufacture of AMPS	Prof. Veena Choudhary	CPSE	Pashupati Acrylon Ltd., New Delhi
27	Dynamic characterization of the Humerous, Scapula and Clavicle bones of shoulder complex	Prof Anoop Chawla	ME	Mercedes-Benz R&D India Pvt Ltd., Bangalore
28	Analysis and characterization of anti-vibration mounts	Prof A K Darpe	ME	SMS Design Consultants Pvt Ltd, New Delhi
29	Beautification and renovation of park in Sector-95 (c/o Column Plaza in Park), Noida	Prof A K Jain	CE	New Okhla Ind. Devt Authority, Noida
30	Beautification of park in Sector-95 (c/o 24 Nos. Elephant Gallery), Noida	Prof A K Jain	CE	New Okhla Ind. Devt Authority, Noida
31	Studies and analysis of friction composites	Prof J Bijwe	ITMMEC	Industries Consortium
32	Study of failed pads of Hydrodynamic Thrust Pad Bearing	Dr R K Pandey	ITMMEC	Tata Chemicals Ltd., Babrala, Distt. Badaun, UP

S. No.	Title	P I	Deptt/Centre	Client
33	Determination of Elastic-Plastic toughness in Piping Joints & Bends and evaluation of their suitability for Engg applications	Prof R K Pandey	AM	Jindal Saw Ltd., Mathura
34	Radioactive Particle Tracking (RPT) in Bio-Reactor Pilot Plant	Dr. Shantanu Roy	CH	Thermax Ltd., Pune
35	Evaluation of CTOD toughness in weld joint of APT steel and insurance of failure safety using fracture mechanics approach	Prof R K Pandey	AM	Jindal Saw Ltd., Mathura
36	Solubilization of proteases from Bacillus Licheniformis	Prof M N Gupta	CY	Novozymes A/S, Denmark
37	Immobilized Lipase for Fatty Acid Ethyl Ester (FAEE) synthesis	Prof M N Gupta	CY	Novozymes A/S, Denmark
38	Validation of Herbal technologies	Prof S N Naik	CRDT	National Innovation Foundation, Ahmedabad
39	Animal dung / alternative feed material based captive power generation on decentralized mode and Biogas enrichment for rural application at Shri Krishna Goshala, Jaleda Distt. Baran, Rajasthan	Dr V K Vijay	CRDT	Deptt. of Science and Technology, Govt. of Rajasthan, Jaipur
40	Analysis & simulation of HWAT System	Prof M R Ravi	ME	Tyco Thermal Control India Pvt Ltd, Noida
41	CFD analysis of a 5000L Milk Cooling Tank	Prof M R Ravi	ME	Mecharte's Researchers Pvt Ltd, New Delhi
42	Vetting of the sub soil water table report of Noida-Greater Noida express highway	Dr A K Mittal	CE	UP Jal Nigam, Noida
43	Development of CFD Model of Hydrodynamics of Slurry Bubble Column Reactor	Dr Shantanu Roy	CH	Engineers India Ltd., Gurgaon
44	Analysis and design validation of mounting bracket assembly (Phase-II)	Dr A K Darpe	ME	Delhi Metro Rail Corporation Ltd., New Delhi (DMRC)

S. No.	Title	P I	Deptt/Centre	Client
45	Target classifier using active sonar	Prof R Bahl	CARE	Bharat Electronics Ltd., Bangalore
46	Technical comparison of ton containers used for storing liquefiable gases	Prof Sunil Pandey	ME	Indian Sugar and General Engineering Co., Yamunanagar
47	Analysis and design validation of mounting bracket assembly (Phase-III)	Dr A K Darpe	ME	Delhi Metro Rail Corporation Ltd., New Delhi
48	Trans Fatty Acids in Indian food items and effect of frying temperature and time on the quality of edible oils	Dr K K Pant	CH	Diabetes Foundation (India), New Delhi
49	Optimal operation of ETP at Jagatjit Industries Ltd., Punjab	Prof. T R Sreekrishnan	DBEB	Jagatjit Industries Ltd., Hamira, Kapurthala
50	Motorbike design research using Eye tracking	Dr Amitoj Singh	IDDC	Honda R&D (India) Pvt Ltd., Gurgaon
51	Ergonomic data generation using a 3D body scanner	Dr Deepti Gupta	TT	The Automotive Research Association of India, Pune
52	Area flood drainage study for the 2x660 MW Kawai Thermal Power Project, Kawai, Baron, Rajasthan	Prof A K Gosain	CE	Adani Power Rajasthan Ltd, Ahmedabad
53	Redesign of Signal Enclosure	Dr Amitoj Singh	IDDC	RT Vision Technologies (P) Ltd., Noida
54	Technical consultancy for implementation of HCBS on 15KMs stretch of Ambedkar Nagar to ISBT Corridor	Dr Geetam Tiwari	TRIPP	rites Ltd., Gurgaon
55	Concept design for CNG / Electric four wheel open public taxi	L K Das	IDDC	Argentum Engineers Pvt Ltd., Surajpur, Noida
56	Exhibition Design Research using Eye tracking	Dr Amitoj Singh	IDDC	Maruti Suzuki India Ltd., New Delhi
57	Design Research using Eye tracking	Dr Amitoj Singh	IDDC	Hero Honda Motors Ltd., New Delhi

S. No.	Title	P I	Deptt/Centre	Client
58	Technical consultancy on F.N.G. Road from Express way to Irrigation Drain, Noida	Dr K N Jha	CE	New Okhla Ind. Devt Authority, Noida
59	Batch Digester Scheduling in Pulp Industry	Dr MA Shaik	CH	ABB Global Industries & Services Ltd., Bangalore
60	Finite Element Modelling and Stress Analysis of cooling water duct in Thermal Power Plants	Dr S Bhalla	CE	Lanco Infratech Limited, Gurgaon
61	Experimental investigation on Glass Reinforced Composite Jali installed at Lodhi hotel, New Delhi	Dr S Bhalla	CE	Lodhi Property Company Ltd., New Delhi
62	Advice on Patent	Prof Veena Choudhary	CPSE	Luthra & Luthra, New Delhi
63	Analysis of Sample	Prof Veena Choudhary	CPSE	The Office of the Commissioner of Customs, New Delhi
64	Design and Development of Isolation System for Sonar Transducer Array	Prof A K Darpe	ME	Naval Science & Technological lab, DRDO, Visakhapatnam
65	Process validation, optimization and design : Sewage treatment plants in Srinagar	Dr A K Mittal	CE	J&K Lakes & Waterways Development Authority, Srinagar

Projects Involving Foreign Contribution 2009-2010

S. No.	Title	P I	Deptt/Centre	Client
1	The Bicycle Partnership Programme (BPP) – 2007-2010 (Phase-II)	Dr G Tiwari	TRIPP	Interface for Cycling Expertise (I-CE), The Netherlands
2	High Efficiency Class D Amplifier	Prof G S Visweswaran	EE	National Semiconductor Corporation, USA
3	Is carbon trapping (CO ₂ sequestration) possible at low temperature through electrochemical conversion of CO ₂ and H ₂ O to methanol and other organic compounds?	Prof S Basu	CH	KFUPM, Saudi Arabia
4	Advice and assistance in developing long-term monitoring techniques using underwater acoustic technology	Prof R Bahl	CARE	Institute of Industrial Science, Univ. of Tokyo, Japan
5	Linking water and agriculture in River Basins : Impacts of climate changes	Prof A K Gosain	CE	Environmental Resources Management Ltd., London
6	“HighNoon: Adaptation to Changing Water Resources Availability in Northern India with Himalayan Glacier Retreat and Changing Monsoon Pattern”	Prof A K Gosain	CE	EU Consortium Project
7	Modeling, analysis and feasibility study of using ammonia – water mixture as working fluid in Boiling Water Reactor with Nuclear Fuels & Nuclear Waste	Prof. PMV Subbarao	ME	King Abdulaziz University, Jeddah, Saudi Arabia
8	Analysis and design of centrifugal ammonia water absorption heat pump	Prof. PMV Subbarao	ME	King Abdulaziz University, Jeddah, Saudi Arabia

S. No.	Title	P I	Deptt/Centre	Client
9	Environment preliminary study for the proposed project on geothermal power development project in Uttarakhand State of India	Dr Arvind K Nema	CE	West Japan Engineering Consultants Inc., Japan
10	Optimal Block Aggregation (Phase-II)	Prof N Garg	CSE	BHP Billiton Innovation Pvt. Ltd., Australia
11	Quality by Design (QbD) based process development for Biosimilar products	Dr AS Rathore	CH	GE Healthcare Bio-Sciences, Sweden
12	The Bicycle Partnership Programme (BPP) – 2007-2010 (Phase-III)	Dr G Tiwari	TRIPP	Interface for Cycling Expertise (I-CE), The Netherlands

APPENDIX - IV

HRD Programmes Undertaken during 2009-2010

S. No.	Title	PI / Deptt.	Type of Program
1	Scoping Workshop for India – UK Collaboration in Solar Energy Research	Prof. Viresh Dutta, CES	DST, New Delhi
2	Training of Indian Railway Services' Engineers (IRSE Officers)	Dr K N Jha, CE	Indian Railways Institute of Civil Engineering, Pune
3	Workshop on "Interactive (Human Computer) Technologies for the End-User"	Dr Sumantra D Roy, EE	HP India Ltd and Participation fee based
4	Training on "Graphics & Software Engineering"	Dr Subodh Kumar, CSE	Adobe Systems India Pvt Ltd., Noida
5	Quality upgradation for WSC Officers	Prof B K Behera, TT	Devt Commissioner for Handlooms, Ministry of Textile
6	Seminar on "Simulation and Modeling in Process Industry"	Dr Munawar A Shaik, CH	Lovraj Kumar Memorial Trust and Indian Institute of Chemical Engineering
7	Internship Program in Engineering Innovation and Design in Electrical Sciences for UG/PG Students (Batch-II)	Prof Subrat Kar, EE	Participation fee based
8	Course on "Intellectual Property Rights & Intellectual Property Services"	Prof S K Jain, DMS	Participation fee based
9	Course on "Advanced Sensing Technologies for Civil Engineers"	Dr Suresh Bhalla, CE	Participation fee based
10	Advisory workshop on "Enhancing Capabilities of North India Ocean Storm Surges" (IITD Model Upgrade)	Prof A D Rao & Prof S K Dube, CAS	DST, New Delhi
11	Training on "IT Security & Ethical Hacking"	Prof S K Gupta, CS	Ministry of Defence, New Delhi
12	Roughness Parameters and their Significance in Engine Cylinder Bore Honing	Dr R K Pandey, ITMMEC	Shriram Pistons & Rings Ltd., Ghaziabad
13	Short Training Programme on "Bioinformatics and Computational Biology"	Prof B Jayaram, CY	Participation fee based

S. No.	Title	PI / Deptt.	Type of Program
14	Personality Development Program at Bharti School	Prof Subrat Kar, EE	Bharti School IIT Delhi
15	Scheduling of Batch and Continuous Process Operations	Dr Munawar A Shaik, CH	ABB Bangalore
16	Training on "Storm Surge Prediction"	Prof A D Rao & Prof S K Dube, CAS	World Metrological Organization (WMO)
17	Indo - Canada Workshop on "Electricity Generation using Renewable Energy"	Prof S S Murthy, EE	DST + Participation fee based
18	PCR-1 Professional Candidate Registration Programme (1st Semester 2009-10)		Participation fee based
19	Conference on Rad Tech India 2009	Prof Veena Choudhary, CPSE	Rad Tech + Participation fee based
20	3rd International Conference on "Pattern Recognition and Machine Intelligence (PReMI'09)"	Prof I N Kar and Prof S Chaudhury, EE	Sponsorship + Participation fee based
21	12th International Conference on "Rough Sets, Fuzzy Sets, Data Mining and Granular Computing (RSFDGrC 2009)"	Prof S Chaudhury and Prof I N Kar, EE	Sponsorship + Participation fee based
22	FEA Fundamentals of Engineering Design	Dr Savita Goel, CSC	Dessault Systems Solid Works Corp.
23	Multiphase Reactor Engineering for the Process Industry	Dr Shantanu Roy, CH	Participation fee based
24	Global Internship Program in Engineering Design and Innovation	Prof S Kar, EE	Participation fee based
25	Technology Demonstration / Exhibition for Telecom Centres of Excellence (TELECOM INDIA 2009)	Prof S Kar, EE	IIT Mumbai
26	International Course on "Transportation Planning, Safety Impact & Biomechanics"	Prof Dinesh Mohan, TRIPP	INRETS France, WHO, Min. of Transport + Participation fee based
27	Certificate Course on "IPRs and IP Services"	Prof S K Jain, DMS	Participation fee based

S. No.	Title	PI / Deptt.	Type of Program
28	Environment Monitoring and latest trends and Guidelines for Environmental Impact Assessment Studies	Dr A K Nema, CE	CPCB, New Delhi
29	Short Course on "Computer Aided Design of Electrical Machines with Power Electronics Application"	Prof S S Murthy, EE	Participation fee based + Sponsorship from NaMPET (C-DAC)
30	Security Vulnerabilities in Current Communication & Network Technologies	Prof S D Joshi and Dr Brijesh Lall, EE	DRDO, New Delhi
31	Short Course on "Next Generation Networks"	Prof S Kar, EE	Participation fee based
32	Workshop on "Fuel Cell Technology & Hydrogen Energy"	Prof D K Sharma, CES	Participation fee based
33	Emerging Role of Biotechnology in Industries	Prof D K Sharma, CES	Participation fee based
34	Brain Storming Meeting on "Himalayan Climate & Glaciers"	Prof S K Dash & Prof S K Dube, CAS	Deptt. of Science & Technology, Delhi
35	Short Course on "Technical Illustration"	Dr Amitoj Singh, IDDC	CPA Global Support Services Pvt. Ltd., Noida
36	PCR-1 Professional Candidate Programme (IInd Semester 2009-10)		Participation fee based

Academic Departments & Centres

Department of Applied Mechanics
 Department of Biochemical Engineering and Biotechnology
 Department of Chemical Engineering
 Department of Chemistry
 Department of Civil Engineering
 Department of Computer Science and Engineering
 Department of Electrical Engineering
 Department of Humanities and Social Sciences
 Department of Management Studies
 Department of Mathematics
 Department of Physics
 Department of Textile Technology
 Centre for Applied Research in Electronics
 Centre for Atmospheric Sciences
 Computer Services Centre
 Centre for Biomedical Engineering
 Centre for Energy Studies
 Instrument Design Development Centre
 Centre for Industrial Tribology, Machine Dynamics and Maintenance Engineering
 Centre for Polymer Science
 Centre for Rural Development Technology
 Transportation Research and Injury Prevention Programme

Code

AM
 DBEB
 CH
 CY
 CE
 CS
 EE
 HU
 DMS
 MA
 PH
 TT
 CARE
 CAS
 CSC
 CBME
 CES
 IDDC
 ITMMEC
 CPSE
 CRDT
 TRIPP

APPENDIX - V

Corporate Members

3M India Ltd	C3i Consultants India Pvt Ltd
Academy of Industrial Management	
Alchem International Ltd	Dabur India Ltd
Allied Industries	Dabur Research Foundation
Altacit Global	Dalmia Cement(Bharat) Ltd
Ambala Cements	Deki Electronics
AMPRI	
Amsaki Homesafe Ltd	Escorts Ltd (Railway Equipment Division)
Anindus Consultants Pvt Ltd	
Applied Research International Pvt Ltd	Faros Simulation Systems Pvt Ltd
Army Technology Centre (EME)	Fresenius Kabi Oncology Ltd
Associated Traders	FIBCOM India Ltd
Auto Ignition Ltd	Freeplay Energy India Ltd
	Frick India Ltd
Bajaj Steel Industries Ltd	
Baxter (India) Pvt Ltd	Gammon India Ltd
BCH Electric Ltd	Global Business Solutions
Bharat Petroleum Corporation Ltd	Gujarat State Council on Science and Technology
Bharti Waters Pvt Ltd	
BHEL -Corporate R&D Division	HPL Additives Ltd
Bihani Manufacturing Co Pvt Ltd	Hero Honda Motors Ltd
Biocraft Healthcare Pvt Ltd	Honeywell International (India) Pvt Ltd
Biotech International Ltd	
BONANZA Consultants	I2 India IPR Pvt Ltd
Bony Polymers (P) Ltd	Indication Instruments Ltd
Brakewel Automotive Components	Indore Colour Organics Ltd
	Intercontinental Consultants & Technocrats Pvt. Ltd
CABS, Bangalore	International Panacea Ltd
Cadence Design Systems (India) Pvt Ltd	InTrans Engineering
Central Research Laboratory (Bharat Electronics)	Intex Technologies (India) Ltd
Clutch Auto	ISGEC John Thompson
C&S Electric Ltd	
CMDC Design Pvt Ltd	JASCH Industries Ltd

JBM Industries Ltd
 JCB India Ltd
 John Deere India Pvt Ltd
 JLI Financial & Management Consultants (P) Ltd
 Jubilant Organosys Ltd

Kee Gad Biogen Pvt Ltd
 Kritikal Solutions Pvt Ltd

L&T
 Lambda Microwaves Pvt Ltd
 Luminous Power Technologies Pvt Ltd

Mahalwale Enterprises
 Manage Air Products India Pvt Ltd
 Marathon Electric India Pvt Ltd
 Maruti Suzuki India Ltd
 Mahindra & Mahindra Ltd
 Mbit Computraining Pvt Ltd
 MB Educational Concepts (P) Ltd
 Mechartes Researchers Pvt Ltd
 Media Lab Asia
 Minda Corporation Ltd
 Micromation Pvt Ltd
 Munjal Showa Ltd

National Research Development Corporation
 Naga Fragrance Pvt Ltd
 NEDO
 NEERI
 NetEdge Computing Solutions Pvt Ltd
 New Life Pharmaceuticals
 NHPC

Okaya Power Ltd
 OM Paper Krafts (India) Pvt Ltd
 Orthomed Solutions

Pidilite Industries Ltd
 Pioneer Friction Ltd

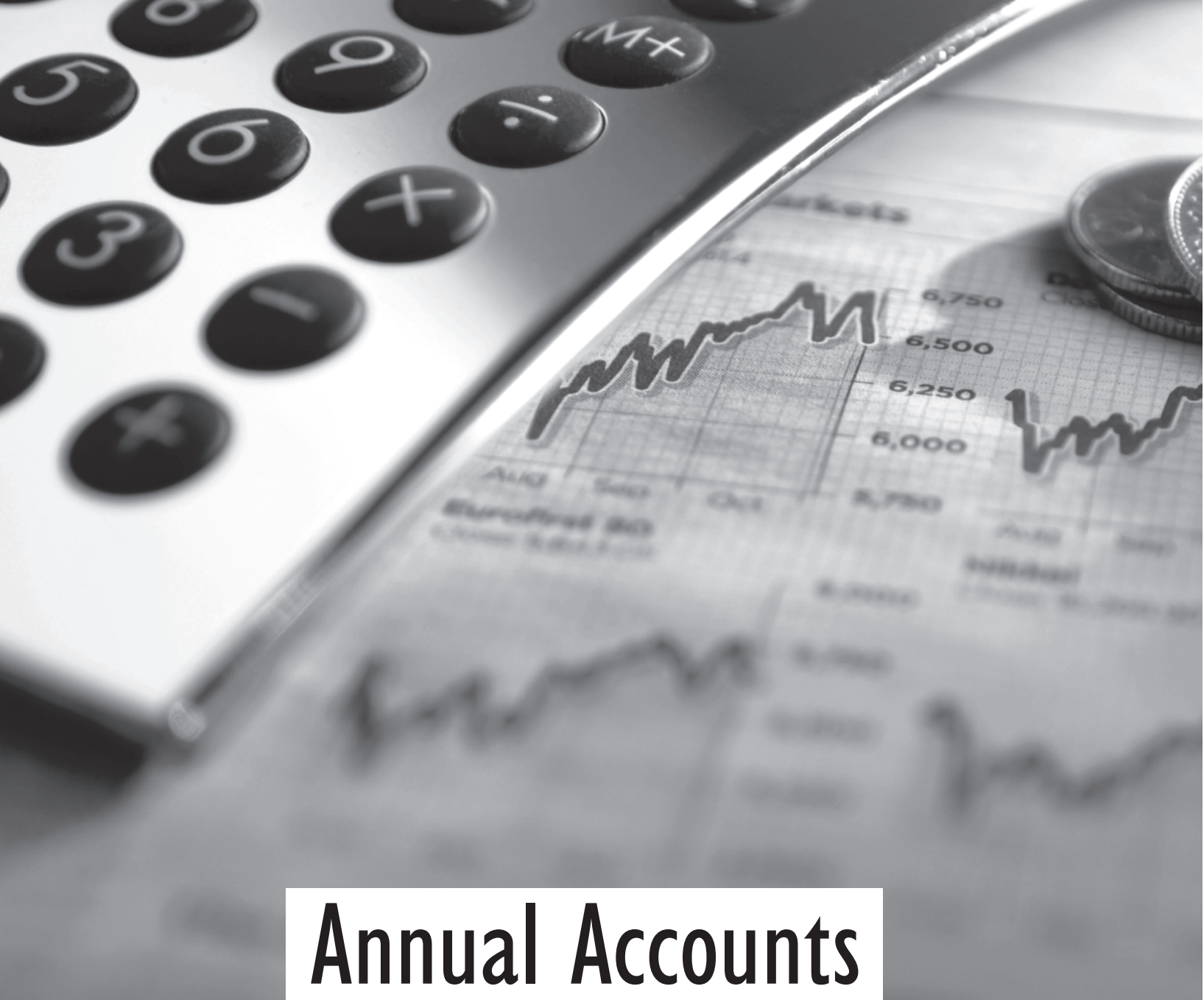
Pitney Bowes Software India Pvt Ltd
 Poly Medicare
 Pluss Polymers Pvt Ltd
 Proderma Biotech Pvt Ltd

Ranbaxy Laboratories Ltd
 Reliance Industries Ltd
 Rico Auto Industries Ltd

SAIC India Pvt Ltd
 SAIL R&D Centre
 Schneider Electric India Pvt Ltd
 Sciencetech Technologies Pvt Ltd
 Scientific Consulting Company
 Sifter International
 Shefa Engineers Pvt Ltd
 Shriram Polytech
 Shivalik Bimetal Controls Ltd
 Solaris Chemtech Industries Ltd
 Sona Koyo Steering Systems Ltd
 SPAN Diagnostics Ltd
 SPAN International
 S.P. Singla Constructions Pvt Ltd
 SRISOL
 S.S. Foundry Chemical Industries Pvt Ltd
 Scientific Instrument Company Ltd
 SRF Ltd
 S.S. Construction & Engineers
 Shubhkarma Udyog

TCG Life Sciences Ltd
 Tetragon Chemie Pvt Ltd

Vardhman Textiles Limited
 Vidyut Yantra Udyog
 Vishal Nirmiti Pvt Ltd
 Victor Forgings
 V&M
 Virtual Wire Technologies
 Wonder Polymers Pvt Ltd



Annual Accounts

Sandeep Ramesh Gupta & Co. Chartered Accountants

Regd. Office
B-102, East of Kailash
New Delhi - 110065
Ph: (91-11) 2683 5848

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 31-03-2010 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 31-03-2010.
2. In the case of the income and expenditure account, of the income over expenditure for the year ending on 31-03-2010.

For Sandeep Ramesh Gupta & Co.
Chartered Accountants

Place: New Delhi
Date: September 13, 2010

Sandeep Gupta
M. No. 90039

BALANCE SHEET AS AT 31st MARCH, 2010

	Schedule No.	Rs.	31.03.2010 Rs.	Rs.	31.03.2009 Rs.
SOURCES OF FUNDS					
Corpus Funds Seed Money			16,200,000		16,200,000
Reserves and Surplus	1		61,786,364		50,430,274
Research and Devt. Fund	2		40,818,197		37,594,740
			118,804,561		104,225,014
APPLICATION OF FUNDS					
Fixed Assets	3				
(A) Gross Block (B) Less: Depreciation (C) Net Block		6,268,849 5,099,736	1,169,113	6,090,349 4,889,792	1,200,557
Investments	4		222,850,000		173,850,000
Current Assets Loans & Advances	5	22,111,510		11,179,824	
Less : Current Liabilities	6	127,326,062		82,005,367	
Net Current Assets			(105,214,552)		(70,825,543)
Notes on Accounts	11		118,804,561		104,225,014
The schedule referred to above form an integral part of the accounts					

As per our attached Report of even date

Sd/-
Sandeep Gupta
M No. 90039

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

Sd/-
Anil Wali
(Managing Director)

As per our attached Report of even date

Place: New Delhi
Dated: September 13, 2010

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

INCOME & EXPENDITURE ACCOUNT

FOR THE YEAR ENDED 31ST MARCH, 2010

Particulars	Schedule No.	31.03.2010 Rs.	31.03.2009 Rs.
INCOME			
Interest	7	17,690,694	13,621,859
Project & Technology Transfer	8	5,185,402	4,048,193
Corporate Membership Fee		436,173	400,998
Other Income		11,813	50,000
		23,324,082	18,121,050
EXPENDITURE			
Establishment Expenses		10,038,730	6,413,002
Patent & Copyright		4,266	7,620
Information Support Services		154,371	158,700
Administrative Expenses	9	1,129,629	1,246,341
Research & Devt. Expenses	10	331,052	1,290,064
Award / Scholarship		100,000	100,998
Promotion Expenses		-	10,400
Depreciation		209,944	248,759
		11,967,992	9,475,884
Excess of Income Over Expenditure		11,356,090	8,645,166
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/-
Sandeep Gupta
M No. 90039

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

Sd/-
Anil Wali
(Managing Director)

As per our attached Report of even date

Place: New Delhi
Dated: September 13, 2010

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

SCHEDULES FORMING PART OF THE BALANCE SHEET

Particulars	Rs.	31.03.2010 Rs.	Rs.	31.03.2009 Rs.
1: RESERVES & SURPLUS				
Capital Reserve		2,555,812		2,555,812
General Reserve		47,874,462		39,229,296
Excess of Income Over Expenditure		11,356,090		8,645,166
		61,786,364	50,430,274	
2: RESEARCH & DEVELOPMENT FUNDS				
FITT Project Promotion Fund				
Opening Balance	10,085,399		9,847,315	
Add: Additions During the Year	717,499		250,532	
	10,802,898		10,097,847	
Less: Utilised During the Year	-	10,802,898	12,448	10,085,399
FITT Consultant Fund				
Opening Balance	9,785,366		8,683,934	
Add: Additions During the Year	2,529,175		3,242,085	
	12,314,541		11,926,019	
Less: Utilised During the Year	1,180,643	11,133,898	2,140,653	9,785,366
FITT Department Development Fund				
Opening Balance	7,019,576		6,701,202	
Add: Additions During the Year	2,287,538		2,343,104	
	9,307,114		9,044,306	
Less: Utilised During the Year	1,150,998	8,156,116	2,024,730	7,019,576
Central Admn. Fund				
Opening Balance	34,815		24,114	
Add: Additions During the Year	683,487		562,245	
	718,302		586,359	
Less: Utilised During the Year	622,212	96,090	551,544	34,815
IIT Student Welfare Fund				
Opening Balance	99,000		99,000	
Add: Additions During the Year	-		-	
	99,000		99,000	
Less: Utilised During the Year	5,000	94,000	-	99,000
FITT Administrative Fund				
Opening Balance	-		-	
Add: Additions During the Year	34,892		-	
	34,892		-	
Less: Utilised During the Year	-	34,892	-	-

SCHEDULES FORMING PART OF THE BALANCE SHEET

Particulars	Rs.	31.03.2010 Rs.	Rs.	31.03.2009 Rs.
TBIU - MCIT Funds				
Opening Balance	3,840,488		(199,012)	
Add: Additions During the Year	422,300		4,200,000	
	4,262,788		4,000,988	
Less: Utilised During the Year	889,536	3,373,252	160,500	3,840,488
TBIU - Funds (Interest On Seed Loan)				
Opening Balance	156,357		70,234	
Add: Additions During the Year	24,723		86,123	
	181,080		156,357	
Less: Utilised During the Year	-	181,080	-	156,357
TBIU - Funds (3% Royalty)				
Opening Balance	799,323		694,247	
Add: Additions During the Year	283,058		105,076	
	1,082,381		799,323	
Less: Utilised During the Year	-	1,082,381	-	799,323
TBIU - Funds (Maintenance Charges)				
Opening Balance	640,373		640,373	
Add: Additions During the Year	-		-	
	640,373		640,373	
Less: Utilised During the Year	-	640,373	-	640,373
TBIU - Funds (Loan Account)				
Opening Balance	2,677,288		2,677,288	
Add: Additions During the Year	-		-	
	2,677,288		2,677,288	
Less: Utilised During the Year	-	2,677,288	-	2,677,288
TBIU - Funds (Shares Buy-Back / Deferred Loan)				
Opening Balance	2,456,755		2,367,953	
Add: Additions During the Year	89,174		88,802	
	2,545,929		2,456,755	
Less: Utilised During the Year	-	2,545,929	-	2,456,755
		40,818,197		37,594,740

FY-09-10

SCHEDULES FORMING PART OF THE BALANCE SHEET

3: FIXED ASSETS										
S.No.	Asset	Rate	Gross Block			Depreciation			Net Block	
			As on 1.4.2009	Additions in 2009-2010	Total	Upto 1.4.2009	For the Year	Total	As on 31.03.2010	As on 31.03.2009
1	Computers	60%	2,104,437	110,000	2,214,437	2,029,331	78,064	2,107,395	107,042	75,106
2	Furniture & Fixtures	10%	1,569,606	-	1,569,606	1,175,656	39,395	1,215,051	354,555	393,950
3	Air Conditioners	15%	443,970	-	443,970	350,544	14,014	364,558	79,412	93,426
4	Photocopier	15%	203,175	-	203,175	195,275	1,185	196,460	6,715	7,900
5	Projector	15%	22,960	-	22,960	22,569	59	22,628	332	391
6	Office Equipments	15%	894,201	68,500	926,701	720,987	31,570	752,557	210,144	173,214
7	FITT Extn. Office	10%	232,000	-	232,000	107,676	12,432	120,108	111,892	124,324
8	TBIU Office Module	10%	620,000	-	620,000	287,754	33,225	320,979	299,021	332,246
	Total		6,090,349	178,500	6,268,849	4,889,792	209,944	5,099,736	1,169,113	1,200,557

SCHEDULES FORMING PART OF THE BALANCE SHEET

Particulars	Rs.	31.03.2010 Rs.	Rs.	31.03.2009 Rs.
4: INVESTMENTS				
Deposits with Scheduled Bank		185,350,000		136,350,000
RBI Bonds		37,500,000		37,500,000
		222,850,000		173,850,000
5: CURRENT ASSETS, LOANS AND ADVANCES				
Balance With Scheduled Bank				
Canara Bank		7,358,000		300,906
SBI		2,090,419		1,163,158
SBI FCRA Account		3,439,870		3,453,206
Tax Deducted At Source		7,869,129		5,255,864
Development Support		39,568		-
Project Advance		1,243,050		952,866
Security Deposit		14,087		14,087
Staff Advance		57,387		39,737
		22,111,510		11,179,824

SCHEDULES FORMING PART OF THE BALANCE SHEET

Particulars	Rs.	31.03.2010 Rs.	Rs.	31.03.2009 Rs.
6: CURRENT LIABILITIES				
Advance Against Projects		127,326,062		82,005,367
		127,326,062		82,005,367
7: INTEREST				
Interest on Banks Deposits / Bonds		17,148,432		13,298,655
Interest on Savings Account		542,262		323,204
		17,690,694		13,621,859
8: PROJECT & CONSULTANCY INCOME				
FITT Overhead Charges		4,033,974		2,969,159
Seminar/Workshops/Hrd Prog		1,022,003		856,817
Royalty Income		129,425		222,217
		5,185,402		4,048,193
9: ADMINISTRATIVE EXPENSES				
Communication		131,026		131,686
Legal & Professional		55,000		16,000
Books & Periodicals		1,515		1,956
Printing & Stationery		43,405		100,174
Conveyance		1,230		1,588
Seminar & Meeting Expenses		29,491		63,829
Travelling Expenses		22,108		25,561
Contingent Expenses		49,115		55,997
Repair & Maintenance		119,884		127,249
Audit Fees		15,000		15,000
Recruitment & Training Expenses		-		48,200
Office Rent		526,848		526,848
Membership & Subscription		12,000		10,000
Bank Charges		11,232		7,834
Electricity Charges		111,775		114,419
		1,129,629		1,246,341
10 RESEARCH & DEVT. EXPENSES				
Devt Support		39,184		249,394
TBIU Account		291,868		1,040,670
		331,052		1,290,064

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 Act , 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. The foundation spent a sum of Rs.5,09,552/-during the current year, charged to Research & Development Expenses and Fixed Assets, out of the funds accumulated as per resolution No. 23/GC-4/2004 dated 31.08.2004, in terms of the provisions of the Income Tax Act, 1961.
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/-
Sandeep Gupta
M No. 90039

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

Sd/-
Anil Wali
(Managing Director)

As per our attached Report of even date

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

Place: New Delhi
Dated: September 13, 2010

COMPUTATION OF TAXABLE INCOME

Name of the Assessee : FOUNDATION FOR INNOVATION AND TECHNOLOGY TRANSFER

Assessment Year : 2010-11

Address : IIT, Hauz Khas
New Delhi - 110 016

Status : AOP (Registered Society)

Previous Year : 2009-10

PAN : AAAJF0001G

Income Tax Ward : Trust Circle - IV

Particulars	Amount (Rs.)	Amount (Rs.)
Income Available		
Gross Receipts as per Income & Expenditure Account for the Period 2009-10	23,324,082	
Total Income for Utilization	23,324,082	
Less: Income accumulated to the extent of 15% of the current year gross Income u/s 11(1)(a)	3,498,612	
Amount to be spent in the current assessment year		19,825,470
Application of Funds		
Income applied for the objectives of the association as per Income & Expenditure A/c	11,967,992	
	11,967,992	
Less: Depreciation and assets written off not actually spent	209,944	
Less: Expenditure out of accumulation	509,552	
Income applied for charitable purpose u/s 11(i)(a)		11,248,496
Amount being accumulated u/s 10 read with sec 11(2) for a period of 5 years till A.Y. 2015-16		8,576,974
Total Taxable Income		-
Tax thereon @35%		-
Surcharge thereon @2%		-
Total tax payable		-
Less: Tax Deducted at Source		2,194,152
Balance Amount Refundable		2,194,152

Sd/-
Sandeep Gupta
M No. 90039

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

Sd/-
Anil Wali
(Managing Director)

As per our attached Report of even date

Place: New Delhi
Dated: September 13, 2010

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





Foundation for Innovation and Technology Transfer

Indian Institute of Technology, Delhi
Hauz Khas, New Delhi -110016