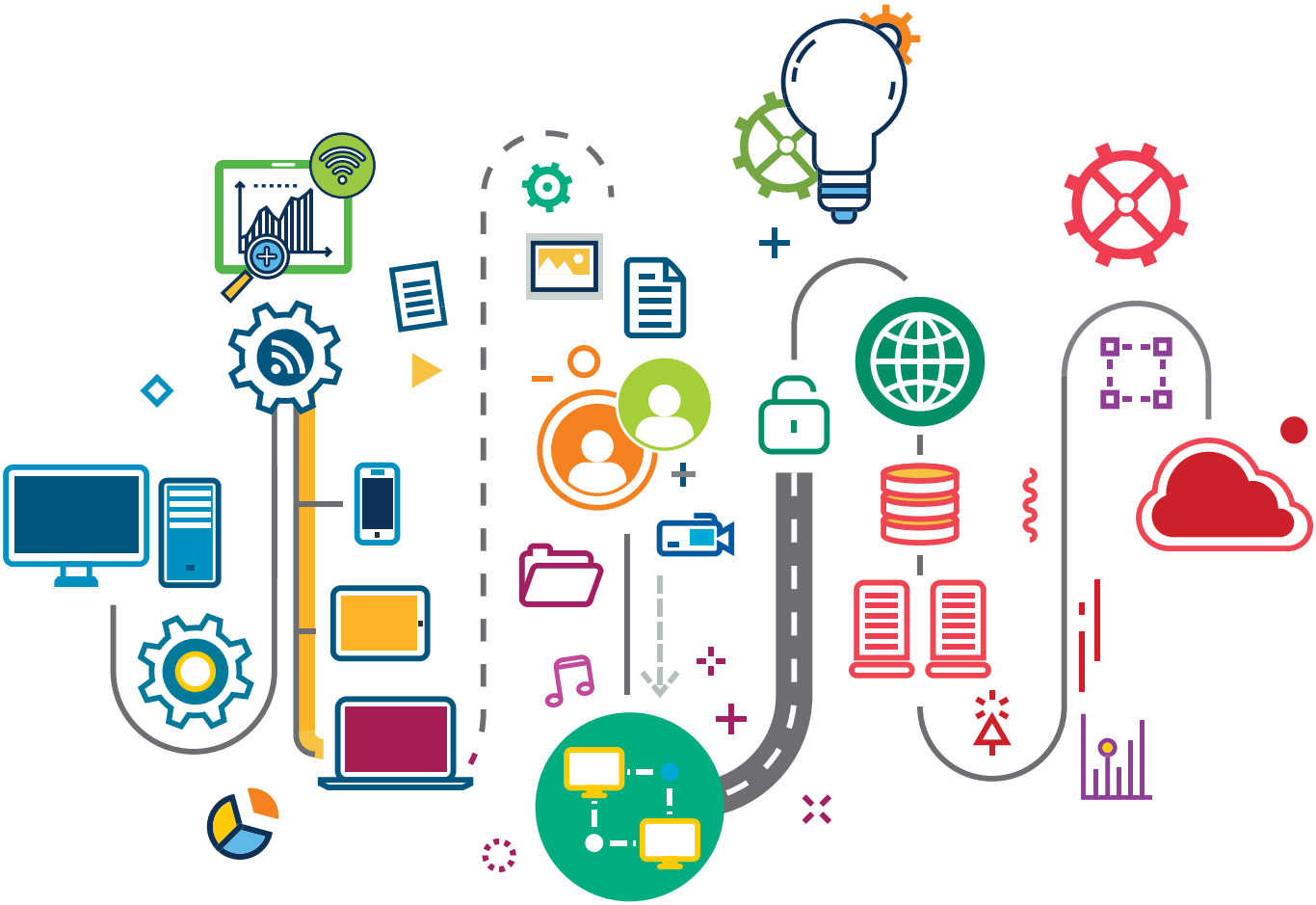
FITT

Foundation for Innovation and Technology Transfer



ANNUAL REPORT
2018-19

> Foundation for innovation and Technology Transfer (FITT) is an industrial interface organisation established at the Indian Institute of Technology Delhi (IITD) as a Registered society on 9th July, 1992. FIIT has been operating in a mission mode to foster, promote and sustain commercialisation of science and technology and has been devising innovative ways to create partnerships and linkages with business and community to enable knowledge transfer for economic and societal benifits.

What's Inside?

Director's Report

Foundation for Innovation and Technology Transfer (FITT) at IIT Delhi has been the vanguard of knowledge transfer activities from academia since its inception in 1992. This techno-commercial organization from academia is counted amongst the successful such organizations. The constantly evolving relationship between industry and academia largely determines FITT's approach in shaping its outreach for economic development. The continued support of academia at IIT Delhi helps the team at FITT to contribute significantly more than efficient delivery of services.

The varied roles of FITT can be seen in enabling innovations, industry partnerships, R&D programs, licensing, industry visits etc. This is mandated by the key agenda of the Foundation to transfer technology and also inspire industrial orientation in teaching and research. Importantly, FITT offers flexible and convenient formats for external engagement by academia. The FITT newsletters depict some of the best that IIT Delhi has to offer in terms of its expertise, knowledge-base and infrastructure as well as other opportunities towards research collaborations.

The foundation believes that strong cooperation amongst the Government, Academia and Industry can help in creating effective policy tools / strategy for finding solutions to various challenges facing our country. Directed research and innovation programs can lead to impactful solutions in the important areas of manufacturing, infrastructure, cleanliness, water, energy, financial inclusion etc. FITT plays an important role in exploiting the research capability at IIT Delhi by creating effective outreach channels. FITT provides superior program management services and is steadily increasing its operational landscape which, while encouraging, is challenging it to attain higher levels of effectiveness and success in its stated mission. FITT has helped in the filing of over 850 patents for IIT Delhi, and actively works to increase the licensing deals. Over 100 technologies have since been commercialized. Towards encouraging innovation and deep-tech start-ups, programs like PHD (Platform for Harnessing Deep Technologies) Incubator has been launched at Sonipat campus.

The Technology Business Incubation program at the campus has provided incubation residence to over 110 start-up companies out of which 30 startups are presently being sheltered. Start-ups like – Valetude, Testride and NanoClean have made successful exits towards their scale-up and commercialization. The joint mentoring initiative taken up by FITT in association with NSRCEL, IIM Bangalore coached more than 100 startups during the last one year. Several Government support programs of DST, BIRAC, DeitY, MSDE and MSME are being facilitated by FITT. The Foundation has recently been taken as an iDEX (innovations for defense excellence) partner by Defense Innovation Organization to enable co-creation of technologies / products primarily in the strategic sector. The Pfizer-IIT Delhi Innovation and IP program supports innovators in the field of healthcare.

To further encompass the innovation value chain, FITT has now embarked on the mission to establish Research Parks on IIT Delhi's campuses to deepen industry engagement, enhance R&D programs and significantly augment the start-up ecosystem. FITT strives to initiate, build and sustain external partnerships and keeps on strategizing for increased value creation and thus, maintains its special position at IIT Delhi.

Key Activities, Projects and Initiatives

(April 1, 2018- March 31, 2019)

Outreach and Engagements

FITT has been working as an interface organization at IIT Delhi since its inception. The evolving relationship between industry and academia has supported knowledge transfer and technology commercialization. The engagement with industry and other organizations is sustained by continued efforts towards various developmental collaborations and other partnership opportunities.

1. **FITT facilitates active industry-academia dialogue and enables mutual visits to explore partnership prospects. In pursuance of this goal, industry representatives are regularly invited for presentations, highlighting their priority R&D areas to faculty groups in the Institute, and opportunities for collaborative work with IIT Delhi. Several high level delegations have visited FITT during the last financial year-2018-19**

Delegation from Queensland University in an interaction with FITT's start-ups on November 26, 2018 at the Technology Business Incubation Unit, IITD

Twitter's CEO Jack Dorsey during his interaction with start-ups at FITT's incubator on November 12, 2018

Delegates from National Institute of Industrial Property (INPI) France headed by Mr Pascal Faure, Director General- INPI, visited FITT's TBI on Novemeber 28, 2018

2. The Ministry of Skill Development and Entrepreneurship (MoSDE) has instituted the National Entrepreneurship Awards Scheme (NEAS) in association with IIT Delhi(through FITT) as one of it's the implementing partners to recognize the efforts and achievements of exceptional entrepreneurs and those individuals and organizations who are working in the field of entrepreneurship development.

3. Power System Operations Corporation Ltd (POSOCO), a government of India enterprise, in association with FITT has been implementing the POSOCO Power System Awards (PPSA) since 2013. PPSA is a part of the CSR initiatives of POSOCO, which aims to reward excellence in the area of power system and its related fields. During the 7th edition of this award, 15 awardees were shortlisted in Doctoral category and 15 candidates in the Master's category. The Doctoral awardees received a cash prize of Rs. 1,00,000/- each and the Master awardees received a cash prize of Rs. 40,000/- each.

Awardees of PPSA- 2019 were felicitated by Prof V Ramgopal Rao, Director IIT Delhi at Senate Room on February 25, 2019

4. FITT joins iDEX network

FITT enters into an MOU with Innovation Organisation- Innovation for Defence Excellence (DIO- IDEX), Ministry of Defence India on March 1, 2019

5. FITT has promoted the Women Entrepreneurship and Empowerment (WEE) program supported by the Department of Science and Technology (DST) at IIT Delhi. WEE classes were conducted during the weekends at IIT Delhi with the global industry experts mentoring the woman entrepreneurs. During the 3rd phase of this WEE program 14 women were shortlisted for the award.

6. FITT is in association with Pfizer India, for implementation of the Pfizer IIT Delhi Innovation and IP Program, thereby providing support upto Rs 60 lakhs to healthcare based innovators/ start-ups for incubation and Rs 3 lakhs for IP protection.

8. The biannual FITT newsletters – FITT Forum and FITT Technopreneurship Bulletin serve as information diffusion channels addressing inter alia, contemporary technical issues, new developments and available opportunities for collaboration, and support for entrepreneurship. The information reaches a wide spectrum of several hundred industrial units, R&D organizations, government agencies, academic institutions and others.

9. A research park has been planned on the campus by IITD with FITT providing the anchor role in conceiving/ enabling the creation of an appropriate infrastructure and operationalizing the system within a framework to be adopted by the institute. Besides, the IIT Delhi TechnoPark (I-TEC) Sonipat has started operation with facilities of residential incubation.

IIT Delhi TechnoPark, Sonipat was formally inaugurated on April 4, 2018 by Mr Manohar Lal Khattar, who was then CM Haryana and Dr Satya Pal Singh, the then Minister of State (HE), MHRD & Minister of Water Resources, River Development & Ganga Rejuvenation

10. FITT has partnered with several organizations for promoting entrepreneurship and technology development:

Yes Bank partners with FITT

Yes Bank signs MOU with FITT at the Annual Start-up Conclave 2018 on May 10, 2018, to provide comprehensive mentorship & banking services to budding entrepreneurs to boost the start-up ecosystem in India

MG Motor partners with FITT

FITT signed MOU with MG Motor to co-develop child safety car tech during the Silver Jubilee celebration on July 28, 2018

Dr Satya Pal Singh, the then Minister of State (HE), MHRD & Minister of Water Resources, River Development & Ganga Rejuvenation delivering his address as the Chief Guest for the Silver Jubilee Function on July 28, 2018

FITT signs MOU with Srijan Technologies

Venture Accelerator Program organized by FITT

FITT in association with TiE-Delhi NCR organized an Accelerator Program during the weekends from September 7-16, 2018

23rd AGM of FITT

Prof M Balakrishnan, Deputy Director (S&P), IIT Delhi presided over Annual General Meeting (AGM) of FITT held on December 18, 2018 at the Senate Room, IIT Delhi

METHODIZED BY FITT

Celebration of 25 years of FITT

The industry interface organization at IIT Delhi, FITT celebrated its 25 years of successful operations on July 28, 2018. The function was graced by Dr Satya Pal Singh, who was then the Minister of State (HE), MHRD & Minister of Water Resources, River Development & Ganga Rejuvenation. Besides him, representatives from industry, government departments, PSUs, corporates were also a part of the Silver Jubilee celebrations at the Seminar Hall, IIT Delhi.

Workshop for Med-Tech Start-ups

Session on "Testing and Calibration for Medical Products" organised by Path in partnership with FITT on February 11, 2019

Orientation Program for Technology Enabling Centres of DST organized by FITT

Prof V Ramgopal Rao, Director, IITD addressing the session on January 29, 2019

India Korea Start-up Meet organized by FITT on July 9, 2018

A Glimpse of our exhibition stall at the IIT Delhi Industry Day held on September 21, 2018

Technology and Consultancy

Scientific and technological advancement is an important catalytic factor in industrial development and economic progress. An indicator of such programs is the creation of intellectual property and the IPRs. 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 the invention disclosures for formal registration as patents, designs etc. Bulk of actual filings, though are outsourced to the professional attorney firms. However, of late, select IP registrations or IP investments has been taken up in association with specialist firms like Intellectual Ventures. The list of IPR applications approved for filing during 2018-19 is given in Appendix-I (Page-17) 119 IP were filed during this period.

FITT is mandated to transfer technologies developed at IITD for commercialization. During 2018-19, 12 IP licenses were executed (as given in Appendix-II- Page 21). However, FITT is working on a few more technologies for transfer.

Session on "Copyright Protection & Licensing"

Mr Tarun Khurana, copyright expert from Khurana & Khurana Advocates during his lecture on "Copyright Protection and Monetisation" at the IRD Conference Room, IITD on March 29, 2019

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 IIT Delhi faculty and FITT has facilitated in their effective execution. This activity has been growing over the years. During the financial year 2018-19, 53 technology development and transfer projects worth Rs. 2324 lakhs have been contracted at FITT. Some of the development projects undertaken during 2018-19 are mentioned in Appendix III(Page 22)

Technology Transfer at FITT

IIT Delhi's Transfemoral Prosthesis Technology by Prof Deepak Joshi, has been transferred to M/s Fupro Innovations Pvt Ltd through FITT on 14th March, 2019

Innovation and Enterprise

a. FITT is responsible for operating the Technology Business Incubation Unit (TBIU) at the Institute Campus.

TBIU primarily aims 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 work station or a prototype laboratory within the campus, with the purpose 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 Biotechnology Business Incubator Facility (BBIF) has also been established by FITT, facilitates specialized equipments, experimental facilities IP guidance, market linkages etc to the bio-tech start-ups.

FITT takes pride in offering to the budding techno-entrepreneurs an ambient ecosystem that nurtures new age businesses. Hand-holding, networking, managerial and material support etc are easily forthcoming for the truly innovative forays.

The administration and management of the incubation units is vested with FITT, yet, an institute level empowered committee (known as TBIU Board) overseas the program. The Board as on March 31, 2019 comprised of the following:

TBIU Board as on 31st March, 2019

1. Prof V Ramgopal Rao, Director, IIT Delhi, Chairman
2. Prof A Gupta, DD(O), IIT Delhi, Member
3. Prof M Balakrishnan, DD (S&P), IIT Delhi, Member
4. Prof BR Mehta, Dean (R&D), IITD, Member
5. Prof KC Iyer, Dean (Infrastructure), IIT Delhi, Member
6. Sh Y Andlay, MD, Nucleus Software Pvt Ltd., Member
7. Sh HK Mittal, Scientist "G", & Head, NSTDEB, DST, Member
8. Dr S Bajaj, Founder & Director, Cygnus Hospitals, Member
9. Dr A Wali, MD, FITT, Convenor

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

b. Following startups(Promoter/ Faculty) were resident at the incubator during the Financial Year 2018-19:

1. Anaavaran Technologies
(Prof M Balakrishnan, CSE ; Ms A Gulati)

This startup is resident in the TBIU since May 2018. Under the mentorship of Prof M Balakrishnan, CSE, Anavaran is working on a multisensory kit that augments audio with tactile diagram to enhance understanding for children with visual impairment. Founder, Ms Ankita, has won accolades such as the GYTI, IIGP and 3M CII young innovators challenge.

2. Flexmotiv Technologies Pvt Ltd
(Prof S Mukherjee & Mr S Adepu, Mr Arvind SR)

Under the mentoring of Prof S Mukherjee, ME , IIT Delhi this startups has developed Flexcrutch-a novel under-arm axillary crutch. Flexmotiv is resident at TBIU from March, 2018.

3. Clensta International
(Prof AS Rathore, CHEME; Dr P Gupta)

Clensta is addressing accessible hygiene concerns whilst contributing in resolving global water crisis as well. They have created innovative healthcare solutions: Clensta Waterless Shampoo & Body Bath ; accessible for anyone, anytime and anywhere. Recent addition to their list of innovations is the pigeon repellant spray that can keep pigeons away. Clensta International was named 'SME of the Year' at the Leaders of Tomorrow Conclave and Awards 2018 and very recently they won the LevelNxt Award 2019. This startup is resident at the incubator from May, 2017.

4. Valetude Primus Healthcare Pvt Ltd
(Prof R Elangovan ,DBEB; Dr S Singh and Dr V Pandey)

This startup is working for development of a portable device (iMC2) for rapid and early detection of infectious diseases(Typhoid). Winner of Pfizer-IIT Delhi Innovation and IP Program, the startup was incubated at the BBIF from January, 2016 to August, 2018.

5. Brownbag Corporate & Social Sustainability Pvt Ltd
(Prof SK Mishra, CAS; Prof S Sahany, CAS; Prof V Pant, CAS)

Brownbag is working towards finding climate solutions for sustainable development. This startup was resident at the TBIU from January, 2017 to December, 2018.

6. Luminasic Pvt Ltd
(Prof M Sarkar, EE)

Luminasic is into development of ASICs for CMOS image sensors. The company has been incubating in the TBIU since January, 2017.

7. Botlab Corporation Pvt Ltd
(Mr T Bunkar, Prof R Chatterjee, PHY)

Botlab is into development of Unmanned Aerial Vehicles (UAVs) for aerial inspection and temperature profiling. The company is resident in the TBIU since July, 2016. While focusing on industry grade (UAVs)having sensing and imaging capabilities for various kind of application across industries, the startup is working on three features - stability, endurance and networking of multiple UAVs.

8. Vizara Technologies Pvt Ltd
(Prof S Roy, EE ; Dr A Mallik and Dr G Sharma)

Vizara Technologies has been resident in the TBIU since October, 2016. The company is providing knowledge-based Virtual Reality and Augmented Reality solutions in various domains such as heritage preservation, tourism, real-estate, security and smart city governance.

9. Vecmocon Technologies Pvt Ltd
(Prof AK Jain, EE and Mr A Bansal)

This startup is engaged in designing and development of Electric Smart Vehicles and battery management. Vecmocon has designed AI electric vehicle components for Original Equipment Manufacturers (OEMs). This startup has been a resident since August 2016 and has filed two patents so far.

10. Testright Nanosystems Pvt Ltd
(Prof J Joseph, TT; Prof SR Kale, Physics and Mr S Rathore)

Testright Nanosystems is into development of high performance analytical spectrometer. The startup has been resident at the TBIU since February, 2017.

11. Aquasense Global Pvt Ltd
(Prof AK Gosain, CE; Mr S Lahari & Mr A Singhal)

Aquasense is working to find pragmatic solution for water measuring devices. The startup is incubated at the TBIU from February, 2017.

12. Nanoclean Global Pvt Ltd
(Prof AK Agarwal, TT; Prof M Jassal, TT and Mr Tushar Vyas)

National Startup Award winner 2017, Nanoclean was incubated at the TBIU from February, 2017 to March 2019. The startup has successfully developed Nasofilters- a nano-respiratory filter which gives protection against the finest particulate pollutants in the air for 8 hours and hence reduces the risk of respiratory diseases.

13. Cerelia Nutritech Pvt Ltd
(Prof V Koul, CBME ; Mr NVV Kiran Vuppala)

This startup is resident at the BBIF as a part of the Pfizer – IIT Delhi Innovation & IP program. They entered the incubator in May, 2017 and working on tackling maternal malnutrition through frugal innovation.

14. Ariant Technologies and Research Pvt Ltd
(Prof S Jha, ME; Mr K Kohli)

Ariant entered the incubator program in November, 2017 and is working on electric fuzes for ammunition to be used by Army, Navy and Ordnance factories.

15. Floly Pvt Ltd
(Prof S Kumar, Physics; Mr R Raj)

Floly is into development of FOOZx- a peer to peer advertising platform. This startups has taken incubation space at Sonipat Residential Incubator (SRI) from March, 2018

16. Matisoft Cyber Security Labs Pvt Ltd
(Prof B Lall, EE; Mr Varun Seth)

This startup is into developing intelligent security software. Matisoft is incubated at the SRI effective from March, 2018.

17. Kriya Labs Pvt Ltd
(Prof N Singh, CBME ; Mr A Kumar)

Kriya Labs is developing products and processes to produce affordable, high-quality and eco-friendly value added products from waste natural materials/ fibres. This start-up is resident at the incubator from December, 2017.

18. Virmat Pvt Ltd
(Prof D Joshi, CBME; Mr Ramandeep Singh)

The startup is working on development of physical simulator for Endoscopic Third Ventriculostomy (ETV) and ventricular shunt placement. Virmat has been operating from BBIF as a part of the Pfizer – IIT Delhi Innovation & IP program since May 2017.

19. Phase Laboratories Pvt Ltd
(Prof K KHare, Physics; Dr Sarita Ahlawat)

Phase lab has been incubating at the TBIU since July 2017 and is working on diagnostic application development using novel High Resolution Digital Holographic (DHM) technology.

20. CYRAN AI Solutions Pvt. Ltd.
(Prof M Suri, EE)

CYRAN aims to build advanced hardware-software technology solutions in the domains of AI based Cyber-Physical Security.

21. Raised Lines Foundation
(Prof M Balakrishnan, CSE; Mr P Sapra, Mr K Kwatra & Mr P Chanana)

Raised Lines Foundation (RLF) at IIT Delhi has developed a technology that uses 3D printing to produce high-quality yet affordable tactile diagrams on a large scale for books and other printable in Braille. The start-up has been working on developing affordable tactile graphics for persons with visual impairment.

22. Redroom Technology Pvt Ltd
(Prof V Srinivasan, Dept of Design & Mr H Sahrawat , Mr A Agarwal)

This startup is working in the area of female hygiene products. Redroom has been resident at the incubator from May, 2018 and launched several products in the market.

23. Stellargene Technologies Pvt Ltd
(Prof S Sapra, Chemistry & Dr Aparna K Sapra)

Stellargene is working on a novel, cost effective diagnostic test for non-invasive prenatal testing. This startup has been resident at the TBIU from March, 2019.

24. Ramja Technologies
(Prof H Singh, CBME; Dr Pooja Goswami)

This startup is working on a novel device to detect gram-negative bacterial infection and antibiotic resistance in patients with acute leukemia. Ramja is incubated at the BBIF from February, 2019.

Individual innovators resident at the incubator are as mentioned below:

i) Dr T Gupta

ii) Mr I Alam

iii) Dr R Chaturvedi

iv) Dr DK Dubey

v) Prof B Kundu

c. 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. Seed support in the broad area of IT is also forthcoming under the Department of Information Technology (DIT) programme – "Technology Incubation and Development of Entrepreneurs" (TIDE) scheme in operation with FITT. Towards accomplishment of the programme objectives, FITT organized several awareness workshops disseminated promotional material and processed application proposals.

FITT and N S Raghavan Centre for Entrepreneurial Learning (NSRCEL), IIM Bangalore has instituted a joint mentoring program for start-ups. Both the parties have agreed that a team of mentors from the alumni community of both the institutes will help in mentoring start-ups in the domains of technology and management.

Joint Mentoring Session by IITD & IIMB alumni is held at FITT on the 4th Saturday of each calendar month.

d. The Department of Biotechnology, Government of India has selected FITT as one of the five BIG Partners in the country under a novel program called Biotechnology Ignition Grant (BIG) Scheme to support start-ups and scientist entrepreneurs from research institutions towards commercialization of research resultants by providing early stage grants for development and maturation of their discoveries/inventions into marketable products. The BIG scheme is designed to establish and validate proof-of-concept and enable creation of spin-offs. During the last financial year the 13th call for proposal commenced from July 1, 2018 and ended on August 16, 2018 and the 14th call started from January 1, 2018 and closed on February 15, 2019.

A Glimpse of our Joint Mentoring Program

e. The BioNest, program of BIRAC, which is under implementation at FITT, has provided seed grant upto Rs. 128 lakhs to 5 startups.

f. Under the NIDHI-Seed Support System (NIDHI-SSS) program of DST, introduced in the year 2017, FITT provides funding to incubated start-ups upto Rs. 1 crore. So far 9 incubatees have been supported by seed funding to the tune of Rs. 3.24 crores.

e. The Deferred Placement Policy (DPP) offered by IIT Delhi is being implemented by FITT for students who opt out of placement in order to inculcate their start-up idea. A student must opt for deferred placement in the final semester of the pre-final year and is eligible to sit for placement after two years if their start-up is not successful. Selected innovative ideas are eligible for incubation at the TBIU. In the year 2018-19, six applicants have been shortlisted under DPP.

Professional Development Programmes

Professional Candidate Registration (PCR) program has been adopted towards extending the academic courses at the Institute, amongst the targeted segments of industry, research and academic establishments. Through this unique program, suitably qualified professionals can undertake relevant semester-long course modules here at IIT Delhi, to augment their knowledgebase and skill set. During the academic year 2018-19, 50 candidates participated in this program. PCR program promises good capacity building potential in the targeted Delhi NCR region.

Global Internship Program

Since 2012, FITT has been offering a Global Internship Program in Engineering Design and Innovation to students and professionally qualified engineers. The program runs throughout the year and provides training in project planning, requirements analysis, specification generation, design iteration management, team work and ethics, behaviour management, team building, group etiquette and communication skills. Apart from a full set of technology modules, it also uses specially designed training modules in ethics, history through heritage sensitization / heritage walks and lessons from mythology to teach culturally-conscious and effective engineering practices.

Corporate Membership

The key endeavour of FITT is to have a formal and effective relationship with its industry partners on a mutually supportive basis. As a mechanism to formalize this relationship, FITT offers corporate membership to industry, industry associations and industrial research institutions on the payment of nominal annual fees. Corporate members receive information about Institute programmes and other opportunities for collaboration regularly. In addition, they enjoy a variety of complimentary services and opportunities for partnership. Appendix-IV (Page 25) lists some of our corporate members.

FITT Awards

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

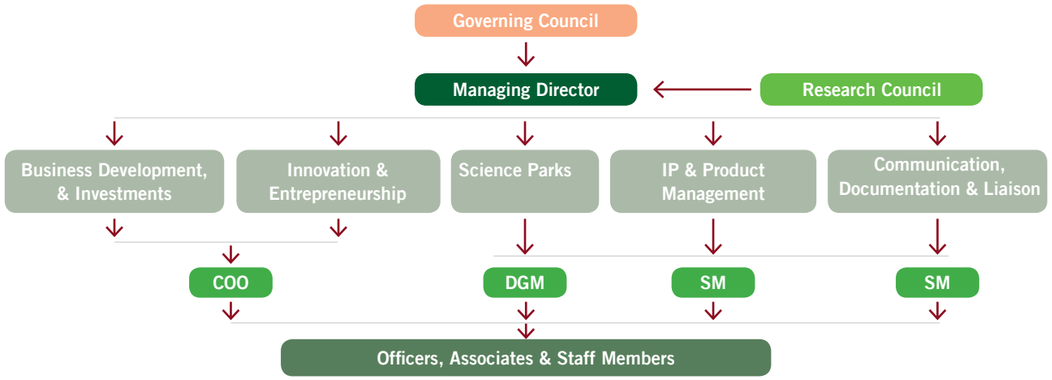
Recognition

FITT is 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 know-how that are required for execution of R&D programs. FITT also functions as the recognized Outreach Centre of DSIR for its innovative programs.

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.



(**COO:** Chief Operating Officer, **DGM:** Deputy General Manager, **SM:** Senior Manager, **M:** Manager)

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 (A, B & 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 of FITT (as on 31st March, 2019)

Prof V Ramgopal Rao
Director, IITD, Chairman (Ex-officio)

Mr S Sinha Member, BOG, IITD, Member	**Prof B R Mehta** Dean (R&D),IITD, Member	**Mr J Bihani** MD, Bihani Manufacturing Co Pvt Ltd, Member	**Mr M Kumar** Head, Social Alpha, Tata Trusts, Member
Prof S Mukherjee ME, IITD, Member	**Prof V K Vijay** CRDT, IITD, Member	**Mr N Saxena** Deputy Secretary General, FICCI, Member	**Mr Naveen Kumar** CEO, Napino Auto and Electronics, Member
Prof Jayadeva EE, IITD, Member	**Dr M Lakshmikumaran** ED, LKS, Member	**Mr V Mehta** DG, ACMA, Member	**Mr P Agarwal** Director (IITs), MHRD, Member
Dr A Wali MD, FITT, Member-Secretary (Ex-officio)			

Research Council (as on 31st March, 2019)

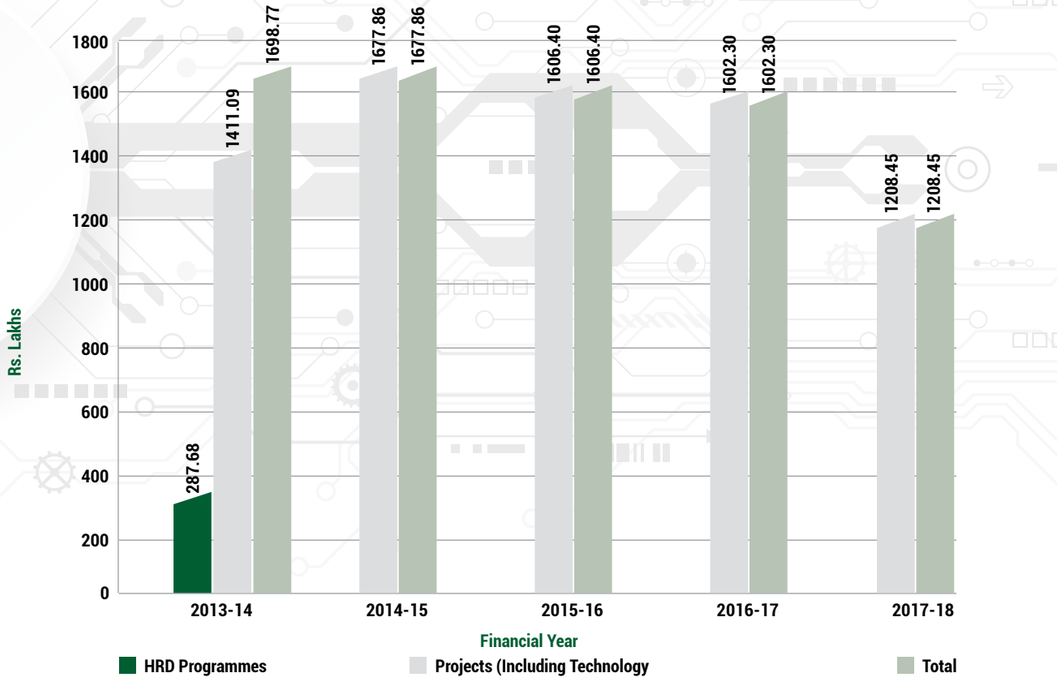
Dr A Wali
MD, FITT, Chairman (ex-officio)

Prof R Khosa CE, IIT Delhi, Member	**Prof A N Bhaskarwar** CHEME, IIT Delhi, Member	**Mr A Das** Executive Director, CII, Member	**Mr N Saxena** Dy Secretary General, FICCI, Member
Prof A K Ghosh DMSE, IIT Delhi, Member	**Prof K Khare** Physics, IIT Delhi, Member	President, IITD Alumni Association, Ex-officio	Secretary, IITD Alumni Association, Ex-officio
Prof A Kumar CARE, IIT Delhi, Member	**Dr K Saha** CTO, Samsung Research Institute, Member	**Mr K K Roy** COO, FITT, .Member-Secretary	
Mr S Banerjee MD, UOP India Pvt Ltd, Member	**Mr D Sekhon** CEO, KritiKal Solutions Pvt Ltd, Member		

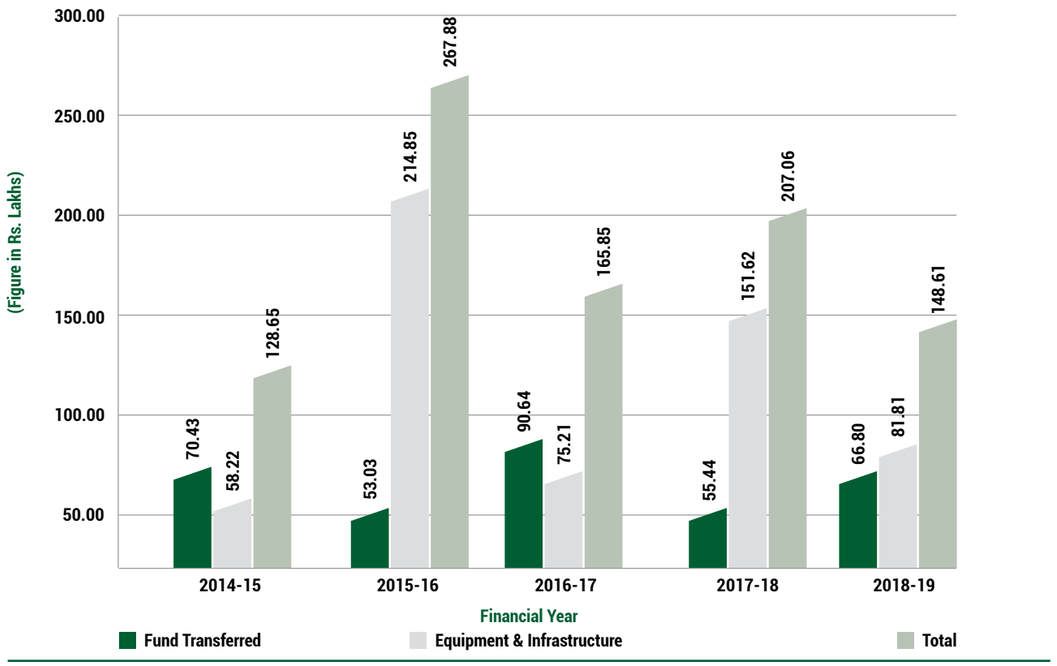
(Figures in Lakhs of Rupees)

	2014-15	2015-16	2016-17	2017-18	2018-19
Investments					
Bank deposits and Bonds	3,603.50	3,621.50	4,241.50	4,053.00	5,203.00
Earnings					
(i) Interest	345.86	246.97	431.12	294.17	383.73
(ii) Projects/ Other Activities	82.45	107.61	116.28	175.75	173.28
(iii) Corporate Membership Fees	2.04	5.10	5.55	2.01	0.30
Expenditures					
(i) Capital	1.59	0.50	0.14	3.90	22.73
(ii) Operational/ Promotional/ Administrative	167.40	168.37	185.89	257.61	353.34
(iii) Rent for Office Premises (Payable to IIT Delhi)	5.27	2.63	7.90	5.40	5.27
Operational Growth (%)					
Fund for Transfer to IIT Delhi (Project Activities)	70.43	53.03	90.64	55.44	66.80
Assets Generated for IIT Delhi out of project activities administered by FITT	58.22	214.85	75.21	151.62	81.81
Value of Projects Contracted/ Other Activities at FITT	1,677.86	1,606.40	1,602.30	1,208.00	18,21.54

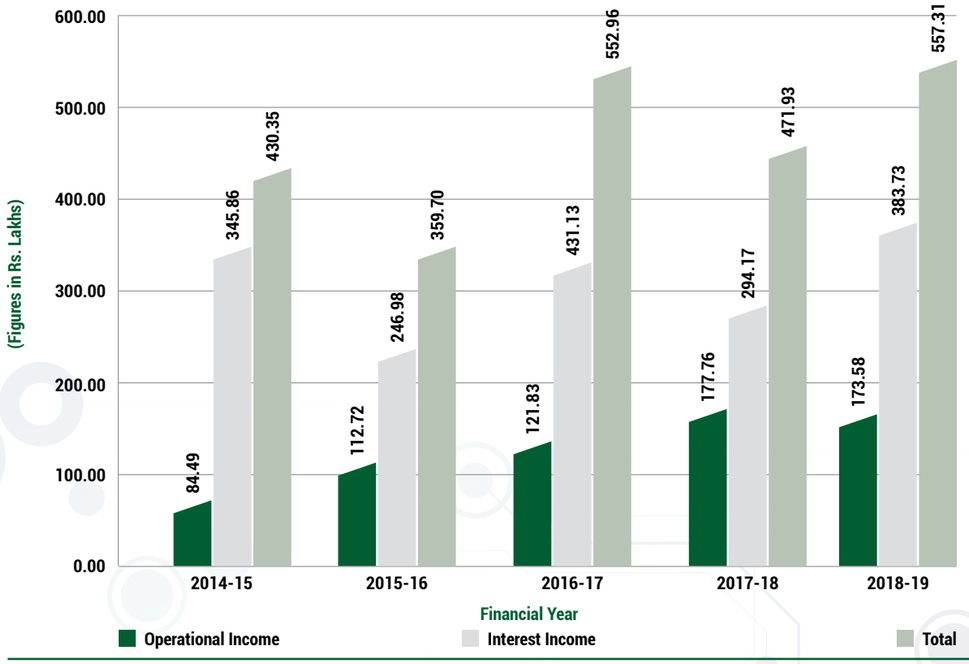
VALUE OF MAJOR ACTIVITIES UNDERTAKEN BY FITT



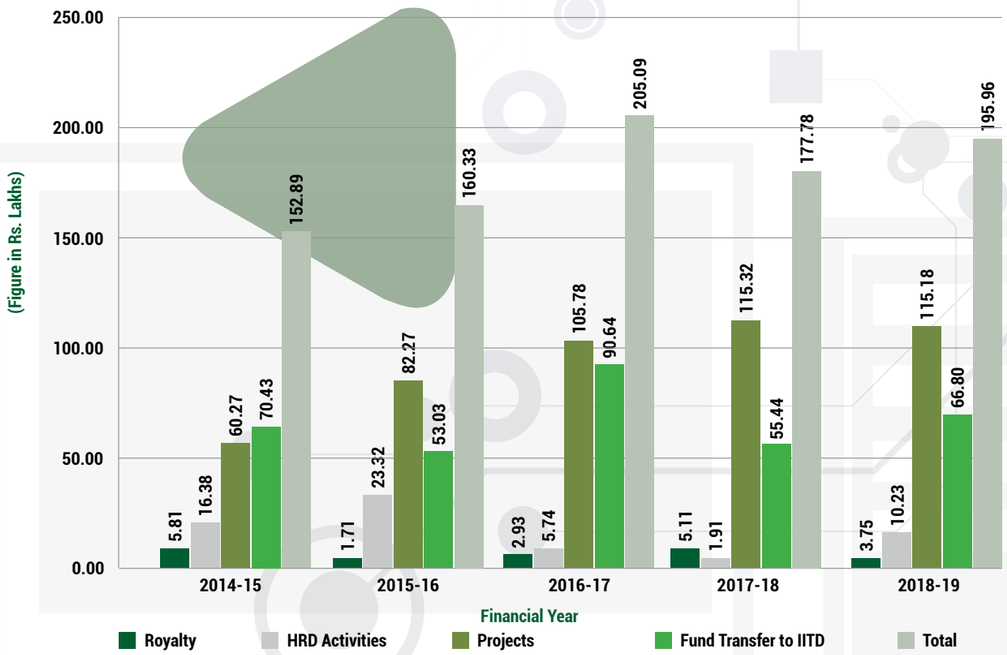
ASSETS GENERATED FOR IIT DELHI



INCOME PROFILE OF FITT



RESOURCES GENERATION FOR FITT & IIT DELHI



Appendix- I

List of IPR Applications filed during the Financial Year 2018-19

Sl No	Names	PI	Dept/ Center/ Schools
1	A process for preparing three dimensional porous scaffold and the three dimensional porous scaffold formed thereof	Prof RK Srivastava	TT
2	Composite railway sleeper	Prof N Bhatnagar	ME
3	Water purification system	Prof W Ali	TT
4	Method for fabrication of MEMS integrated sensor and sensor thereof	Prof S Dhanekar	CARE
5	System and method for improving the performance of an architectural simulator	Prof SR Sarangi	CSE
6	Rapid manufacturing of metal products using ultrasonic vibration assisted pressureless sintering (UAPS)	Prof PM Pandey	ME
7	All in one smart medical jacket	Prof SNSingh	AM
8	Diblock copolymer in a nanosystem, and implementations thereof	Prof V Koul	CBME
9	A medicament for the treatment of diseases by biofilm forming microorganisms	Prof S Hasnain	KSBS
10	Composite fibers having aligned inorganic nano structures of high aspect ratio and preparation method	Prof AK Agarwal	TT
11	Shape engineered spectrally selective absorbers	Prof M Singh	EE
12	A three-phase, three wire grid interfaced solar photovoltaic system with islanding and synchronization capabilities	Prof B Singh	EE
13	Improvement of stability and function of GroEl protein, and implementations thereof	Prof TK Chaudhury	KSBS
14	3D printed construct for correcting bone defects and stem cell delivery	Prof S Ghosh	TT
15	Composite fibers having aligned inorganic nano structures of high aspect ratio and preparation method	Prof AK Agarwal	TT
16	Pullout device for measuring inclined pullout resistance of geosynthetic reinforcement material and method thereof	Prof J T Shahu	CE
17	A random access method and apparatus	Prof SK Mohammad	EE
18	IOT based person identification system using footfall signature	Prof S Kar	EE
19	System and method for achieving ultra-high depth of field imaging	Prof K Khare	PHY
20	Photovoltaic system to track the maximum power point for maximum power extraction and method thereof	Prof B Singh	EE
21	A wireless system for improving performance and prolonging battery lifetime of node by energy harvesting	Prof S Prakriya	EE
22	Passive infrared sensor based indoor localization	Prof S Kar	EE
23	Method for fabricating a heterojunction silicon solar cell at room temperature	Prof VKKomarala	CES
24	A Process for Fractionating Components of a Biomass	Prof N Singh	CBME
25	Process of preparation of fuel additives and commodity chemicals	Prof KK Pant	CHEME
26	Methodology to fabricate customized shape polymeric tubular stent	Prof PM Pandey	ME
27	A system for production of biomethane and biocarbon dioxide from biogas and method thereof	Prof VK Vijay	CRDT

Continued from previous page

Sl No	Names	PI	Dept/ Center/ Schools
28	Post-curing inflation of tire	Prof S Mukherjee	ME
29	Biomass pellet based combustion devices	Prof SK Tyagi	CES
30	Molecularly modified gallium-nitride based ultraviolet photodetector and a method of fabrication thereof	Prof R Singh	PHY
31	Internally cooled EDM tool by rapid manufacturing	Prof PM Pandey	ME
32	Magnetically separable super-hydrophobic and super-oleophilic porous carbon nanocomposite for efficient separation of oils from water-oil mixture	Prof N Khare	PHY
33	Neonatal Incubator	Prof SN Singh	AM
34	A microfluidic device and a method for fabricating a three-dimensional (3D) poly-high internal phase emulsions	Prof SS Bahga	ME
35	Non-invasive handheld optical sensor for multi-analyte detection in saliva	Prof SK Jha	CBME
36	Flexible nanocomposite films by incorporating piezoelectric/ ferroelectric nanostructures into ferroelectric polymers for enhanced triboelectric effect	Prof N Khare	PHY
37	Recombinant vector for bio-desulfurization, and implementations thereof	Prof P Srivastava	DBEB
38	Liquid distributors for three-phase applications of monolith catalysts and substrates	Prof S Roy	CHEME
39	Method for monitoring of foulants present on chromatographic resins using fluorescence probe	Prof AS Rathore	CHEME
40	A method of distributed state estimation of nodes/bus of a power system	Prof AR Abhyankar	EE
41	Ionic liquid, and process for preparation thereof	Prof B Nandan	TT
42	Bioreactor	Prof AK Srivastava	DBEB
43	Method for monitoring of Foulants present on Chromatographic resins using Fluorescence probe	Prof AS Rathore	CHEME
44	System and method for protecting fragile objects	Prof S Mukherjee	ME
45	Post-curing inflation of tire	Prof S Mukherjee	ME
46	An assistive transfer system for wheelchair users	Prof PVM Rao	ME
47	Apparatus and method for measuring pullout resistance of a reinforcing element of reinforced soil structures	Prof GV Ramana	CE
48	Fiber Reinforced Shear Thickening Fluids (STF) effective at higher temperatures	Prof BS Butola	TT
49	A device for knotting a suture and a method for knotting a suture thereof	Prof S Mukherjee	ME
50	A method and system for single stage solar PV fed water pumping using sensorless BLDC motor	Prof B Singh	EE
51	Process for producing mature serratiopeptidase	Prof TK Chadhuri	KSBS
52	Apparatus and process for uniform deposition of polymeric nano-fibers on substrate	Prof AK Aggarwal	TT
53	System for adaptive compressive sampling and method thereof	Prof S De	EE
54	Elbow implant	Prof D Kalyanasundaram	CBME
55	System and method for protecting fragile objects	Prof S Mukherjee	ME
56	Bioreactor and a method for mass propagation of plant cell aggregates	Prof AK Srivastava	DBEB
57	A recombinant vector comprising a fusion DNA for cell surface display, and uses thereof	Prof P Srivastava	DBEB

Continued from previous page

Sl No	Names	PI	Dept/ Center/ Schools
58	Litter picker device with flexible arm	Prof S Mukherjee	ME
59	Underwater Acoustic Communication Link	Prof M Aggarwal	CARE
60	A process and two-step catalytic reactor system for the production of liquid hydrocarbons from plastic waste	Prof SN Naik	CRDT
61	A novel green micro- emulsion for controlling fungal wilt diseases	Prof S Sharma	CRDT
62	Method, system and apparatus for multilingual and multimodal keyword search in a mixlingual CH corpus	Prof A Kumar	CARE
63	Digital holographic microscopy	Prof DS Mehta	PHY
64	Wearable gait analysis system	Prof D Joshi	CBME
65	Process for producing recombinant peptides	Prof AS Rathore	CHEME
66	A process for producing cross-linked polymeric matrices	Prof RK Srivastava	TT
67	Laser based solid state lighting device for white light generation and method thereof	Prof DS Mehta	PHY
68	An Assay and Kit For detection of endotoxin	Prof S Gupta	CHEME
69	An Assay and Kit For detection of endotoxin	Prof S Gupta	CHEME
70	Functionalization of organic substrates	Prof AK Agrawal	TT
71	Transmission method for a wireless communication system and apparatus thereof	Prof SK Mohammad	EE
72	Exoskeleton device for upper limb rehabilitation	Prof A Mehndiratta	CBME
73	An extended boost range buck-boost converter	Prof M Veerachary	EE
74	Hollow bistable Micro-Electro-Mechanical Systems switch	Bhaskar Mitra	EE
75	Low cost and efficient line interactive solar-ups system	Prof B Singh	EE
76	Process for conversion of sulfur trioxide and hydrogen production	Prof S Upadhyayula	CHEME
77	Catalyst composition for conversion of sulfur trioxide and hydrogen production process	Prof S Upadhyayula	CHEME
78	Catalyst composition for conversion of sulfur trioxide and hydrogen production process	Prof S Upadhyayula	CHEME
79	Process for conversion of sulfur trioxide and hydrogen production	Prof S Upadhyayula	CHEME
80	Catalyst composition for conversion of sulfur trioxide and hydrogen production process	Prof S Upadhyayula	CHEME
81	Process for conversion of sulfur trioxide and hydrogen production	Prof S Upadhyayula	CHEME
82	Process for conversion of sulfur trioxide and hydrogen production	Prof S Upadhyayula	CHEME
83	Catalyst composition for conversion of sulfur trioxide and hydrogen production process	Prof S Upadhyayula	CHEME
84	A multiple access method for communication systems in high mobility and high delay spread wireless channels	Prof SK Mohammad	EE
85	Process of producing a fibrous structure for both acoustic absorption and acoustic insulation from non- thermoplastic fibres	Prof S Mukhopadhyay	TT
86	Multivariate data compression system and method thereof	Prof S De	EE
87	Orthopedic Screw	Prof D Kalyanasundaram	DBEB
88	A self-synchronizing micro grid system and method thereof	Prof B Singh	EE
89	A composition for mucus or sputum liquefaction and a process thereof	Prof SE Hasnain	KSBS

Continued from previous page

Sl No	Names	PI	Dept/ Center/ Schools
90	Aptamers for ranibizumab	Prof SK Jha	CBME
91	Dynamic platform based cell culture device	Prof D Kalyanasundaram	DBEB
92	Low temperature lead free high performance piezoelectric thin films	Prof B Mitra/ Prof M Singh	EE
93	Low cost electrochemical sensor	Prof M Singh	EE
94	Catalyst composition for conversion of sulfur trioxide and hydrogen production process	Prof S Upadhyayula	CHEME
95	Process for conversion of sulfur trioxide and hydrogen production	Prof S Upadhyayula	CHEME
96	Digital holographic microscopy	Prof DS Mehta	PHY
97	A 3D Bio-printed scar tissue model	Prof S Ghosh	TT
98	A level crossing warning system and a method thereof	Prof V Chandra	EE
99	Robust range-based secure localization in resource constrained wireless sensor networks	Prof S Kar	EE
100	Upconversion based thin films for a-Si photodetector	Prof M Singh	EE
101	System and method for identifying passive optical identifier	Prof A Dixit	EE
102	Process for preparing de-lignified micro-fibrillated fibre	Prof AK Ghosh	DMSE
103	Three-dimensional integrated weaving of wind blade composite	Prof BK Behera	TT
104	A novel process to develop efficient electrode for efficient vanadium redox flow battery	Prof A Verma	CHEME
105	A formulation for stabilizing bio-therapeutics	Prof AS Rathore	CHEME
106	A method of preparation of reduced graphene oxide nanoparticles	Prof AN Bhaskarwar	CHEME
107	A novel device for measuring pressure pulses based on applanation tonometry	Prof S Roy	AM
108	Optimal reaction load measuring platform	Prof JP Khatait	ME
109	A bioreactor landfill comprising prismoidal lysimeter	Prof S Chakma	CE
110	Method in blockchain systems for fast stabilization and increased responsiveness	Prof VJ Ribeiro	CSE
111	Photobioreactor with novel diffuser design	Prof A Malik	CRDT
112	A system and method of power restoration for supply of uninterrupted power	Prof S Mishra	EE
113	A system for maintenance of root culture for improved viability and propagation	Prof AK Shrivastava	DBEB
114	A grid integrated solar photovoltaic based water pump driven by synchronous reluctance motor	Prof B Singh	EE
115	Artificial skin substitute for burn wounds and trauma care and method of preparation thereof	Prof V Koul	CBME
116	Method in blockchain systems for fast stabilization and increased responsiveness	Prof VJ Ribeiro	CSE
117	Grid-interactive PV/battery system having switched reluctance motor drive for pumping systems	Prof B Singh	EE
118	Smart Case	Prof S Mukherjee	ME
119	A system for monitoring and control of chromatography	Prof AS Rathore	CHEME

Appendix- II

Technology Licenses Executed During the Financial Year 2018-19

Sl No	Names	PI	Dept/ Centres/ Schools	Client
1	A process to produce δ-decalactone by integrated fermentation and Catalytic processing of biomass	Prof MA Haider	AM	Dr Imteyaz Alam
2	Process for the preparation of hydric alcohols	Prof MA Haider	AM	Dr Imteyaz Alam
3	Conversion of 2-pyrone into 2-nonene-4-one via ring opening and decarboxylation	Prof MA Haider	AM	Dr Imteyaz Alam
4	Magnetic caputuring rare cell	Prof R Elangovan	CARE	Valetude Primus Healthcare
5	Evanescent wave based illumination	Prof R Elangovan	CARE	Valetude Primus Healthcare
6	Magnetic enrichment of magnetically marked cells	Prof R Elangovan	CARE	Valetude Primus Healthcare
7	An assay kit for detection of endotoxin	Prof S Gupta	CBME	NanoDx Healthcare
8	The process flow of information, bidirectional transmission from hardware to PC/laptop	Prof S Mishra	CBME	SILOV Solutions
9	Assistive garment facilitating Kangaroo Mother Care	Prof D Gupta	CBME	Vista Furnishing
10	A novel green micro emulsion for controlling fungal wilt diseases	Prof S Sharma	CBME	Care Pro
11	Synergy based adaptive transfemoral prosthesis	Prof D Joshi	CBME	Fupro Innovations
12	Odour prevention device	Prof VM Chariar	CBME	Ekam Eco Solutions

Appendix- III

Select Development / Investigative Projects Undertaken During Financial Year 2018-19

Sl No	TITLE	PI	DEPT/ Centre	CLIENT
1	A digital mini-spectacle for showcasing the glory of Hampi	Prof SD Roy	EE	Department of Science & Technology (DST)
2	Augmented realty interaction with physical models of monuments	Prof SD Roy	EE	Department of Science & Technology (DST)
3	Data driven techniques for fault and horizon identification in oil reservoirs using 3-D seismic datasets	Prof J Phirani	CHEME	Schlumberger India Technology Centre Pvt Ltd
4	Joint optimization of CPU DVFS & TASK scheduling in mobile phones	Prof PR Panda	CSE	Samsung India Electronics Pvt. Ltd.
5	A life cycle approach on laminated fabric/ flex banner & it impact assessment on the environment	Prof AK Ghosh	DMSE	All India Laminated Fabric Manufacturing Association
6	Identification of chemical nature of hard sulfur and their source in insoluble sulphur	Prof R Khanna	CHEME	Oriental Carbon & Chemicals Ltd
7	Peptide modelling & molecular dynamic simulation, peptide synthesis, biophysical studies on peptides and peptide bacterial interactions	Prof M Banerjee	KSBS	Unilever Industries Pvt Ltd
8	Aerial robotic inspection and dexterous manipulation – modeling, planning and control	Prof S Bhasin	EE	Tata Consultancy Services
9	Determination of robot performance and its kinematic parameters using non-contact sensors	Prof SK Saha	ME	Tata Consultancy Services
10	Modelling based control and continuous manufacturing of biopharmaceutical products	Prof AS Rathore	CHEME	Tata Consultancy Services
11	A process for generating magnetically controlled ball and smart abrasive laden shape for finishing 3D intricate shaped surface	Prof S Jha	ME	Nanox Precision Machines Private Ltd
12	Root cause of fire and explosion at Mil SEZ Dahej	Prof R Khanna	CHEME	Meghmani Industrial Limited
13	DBT-AIST International Centre for Translational and Environmental Research (DAICENTER)	Prof D Sundar	DBEB	Ministry of Science & Technology (DBT)- Bioinformatics Division
14	Developing criteria including trail runs for suitability of TA Pins under application of cyclic loading	Prof P Mahajan	AM	Ordnance Factory Muradnagar
15	Analysis of gas induced mixing inside a digester using CFD	Prof V Singh	CHEME	Larsen & Toubro Ltd. and Passavant Energy & Environment GmbH-JV
16	Air pollution study for BP	Prof S Dey	CAS	IIT Kanpur
17	Design andproduction of tactile diagrams for persons with visual impairment	Prof M Balakrishnan	CSE	Ministry of Electronics & Information Technology
18	Correlating impact of media components on critical quality attributes of recombinant monoclonal antibodies expressed in mammalian cell culture processes	Prof AS Rathore	CHEME	Agilent Technologies India
19	Development of novel hydrophilic polyester molecules as coating additives to improve wearer comfort for polyester and blended fabrics	Prof J Jacob	DMSE	Resil Chemicals Pvt Ltd
20	Exploration of deep adversarial & generative networks for clinical image analysis	Prof AP Prathosh	EE	Sigtuple Technologies Pvt Ltd
21	Failure analysis of LHB springs	Prof J Jain	AM	RITES Ltd
22	Air pollution status for North India cities	Prof S Dey	CAS	Centre for Environment Energy Development
23	Technical advice on steel classification	Prof J Jain	AM	Bhiwadi Manufacturers Association
24	Investigation of failure of polymer samples	Prof J Jain	AM	LG Soft India Pvt Ltd
25	Development of thermal comfort based controller card for LHB type air-conditioning coaches of Indian Railways	Prof IN Kar	EE	Northern Railway
26	Testing analysis of CTOD samples	Prof P Mahajan	AM	Jindal SAW Ltd
27	Applications of ALD coating for deterrence of abuse potential of APIS	Prof AS Rathore	CHEME	Applied Materials India Pvt Ltd
28	Digital holographic microscopy for cellular diagnostic	Prof SK Dubey	IDDC	SigTuple Technologies Pvt Ltd
29	Mechanical testing & analysis of steel specimen (for NISD at Sector-10, Dwarka, New Delhi) of SS-304"fatigue testing and analysis of LUGS	Prof P Mahajan	AM	Central Public Work Department
30	Fatigue testing and analysis of LUGS	Prof P Mahajan	AM	Farmer Industries
31	Safety audit of Yumuna Expressway	Prof G Tiwari	TRIPP	Jaypee Infratech Limited
32	Consulting Services for socio economic cost of road accidents in india	Prof G Tiwari	TRIPP	Delhi Integrated Multi-Modal Transit System Ltd (DIMTS)
33	Digital holographic microscopy for cellular diagnostic	Prof SK Dubey	IDDC	SigTuple Technologies Pvt Ltd
34	Peptide modelling & molecular dynamic simulation, peptide synthesis, biophysical studies on peptides and peptide bacterial interactions	Prof M Banerjee	KSBS	Unilever Industries Pvt Ltd
35	Advice on root cause of explosion and fire at Nandesari Plat of GSP Crop Sciences Pvt Ltd	Prof R Khanna	CHEME	GST Crop Sciences Pvt Ltd
36	Failure analysis of LHB springs	Prof J Jain	AM	RITES Ltd
37	Underwater sound level measurement in national waterways-1	Prof A Kumar	CARE	Delsig Systems Pvt Ltd

Continued from previous page

Sl No	TITLE	PI	DEPT/ Centre	CLIENT
38	Use of blockchain technology in the supply chain of India honey	Prof K Dashora	CRDT	Srijan Technologies Pvt Ltd
39	Improving shelf-life of pan masala packed in aluminum laminate pouches	Prof J Jain	DMSE	Dharampal Sayapal Ltd
40	Deployment and testing of IVAs for Dolphin census	Prof A Kumar	CARE	GANGA
41	Study of Energy Conservation Opportunities in Paint Industry: Asian Pains, Rohtak Plant	Prof KR Kumar	CES	Asian Paints Ltd
42	Investigation of edge cracking in high carbon containing stainless steel bars	Prof J Jain	DMSE	Ambica Steels Ltd
43	Water audit and ETP adequacy of Ashoka Pulp and Paper Pvt Ltd	Prof V Kumar	CRDT	Ashoka Pulp & Paper Pvt Ltd
44	Controlling intergranular oxidation in steel gears	Prof S Neelakantan	DMSE	RACL Geartech Ltd
45	Design and development of laser seeker	Prof M Sarkar	EE	DRDO Bhawan
46	Joint development of controller for AC asynchronous motor /PMSM Motor (3KW and 12 KW) for electric vehicle, with CDIL	Prof AK Jain	EE	Continental Device India Pvt Ltd
47	Development of dual fuel tractor engines using enriched biogas & diesel/biodiesel	Prof PMV Subbarao	ME	Escorts Ltd- Knowledge Mnagement Centre
48	DSP based permanent magnet synchronous machine control and validation for gun drives	Prof AK Jain	EE	Bharat Electronics Ltd
49	To develop meat textured, high protein, plant based products	Prof K Dashora	CRDT	Srijan Technologies Pvt Ltd
50	Developing criteria including trail runs for suitability of T.A. Pins	Prof P Mahajan	AM	Ordnance Factor
51	Development of a software program for day-ahead and intra-day forecasting of solar power generation in the northern Indian region for NRLDC, POSOCO	Prof SB Roy	CAS	Northern Regional Load Despatch Centre, POSOCO
52	Input point prediction	Prof B Lall	EE	Samsung India Electronics Private Limited
53	Investigation on the formation of colored product over the surface of copper/brass electrical contracts of starter motor	Prof J Jain	AM	Auto Ignition Ltd

Abbreviations

AM : Department of Applied Mechanics

BSTTM : Bharti School of Telecommunication Technology and Management

CARE : Centre for Applied Research in Electronics

CAS : Centre for Atmospheric Sciences

CBME : Centre for Biomedical Engineering

CE : Department of Civil Engineering

CES : Centre for Energy Studies

CHEME : Department of Chemical Engineering

CHY : Department of Chemistry

CRDT : Centre for Rural Development and Technology

CSE : Department of Computer Science and Engineering

DBEB : Department of Biochemical Engineering and Biotechnology

DMS : Department of Management Studies

DMSE : Department of Material Science & Engineering

EE : Department of Electrical Engineering

HUSS : Department of Humanities and Social Sciences

IDDC : Instrument Design Development Centre

ITMMEC : Industrial Tribology

KSBS : Kusuma School of Biological Sciences

MATHS : Department of Mathematics

ME : Department of Mechanical Engineering

PHY : Department of Physics

TFE : Department of Textile and Fiber Engineering

and many more...

Appendix- IV

Some of our Corporate Members include:

Autolek
Dabur India
SRF
Creditas
Rico Auto
Havells India
BSES Yamuna Power
JBM Group
Maruti Suzuki India
Minda Corporation
Munjal Showa
Prayag Polytech
SP Singla Constructions

Sona Koyo Steering
Vardhman Textile
Bihani Manufacturing
Ornate Solar
GLF Business School
Wonder Polymers
Fresenius Kabi Oncology
Bonanza Consultants
Campusknot
Kritikal Solutions
Lakshmikumaran & Sridharan
New Life Pharmaceuticals
Shubhkarma Udyog

Sri Sarvana Fabs
Maan Infrastructure
Nable IT Consultancy
Cosmos Advanced Diagnostics
Pluss Advanced Technologies
Napino Auto and Electronics
Applied Research International
Academy of Industrial Management
Security Printing and Minting Corporation of India
Net Edge Computing Solutions
Waterneer Biokube Technologies

FOUNDATION FOR INNOVATION AND TECHNOLOGY TRANSFER

BALANCE SHEET AS AT 31st MARCH, 2019

Particulars	SCHEDULE No.	Rs	31.03.2019 Rs	Rs	31.03.2018 Rs
SOURCE OF FUNDS					
1 CORPUS FUNDS SEED MONEY			1,62,00,000		1,62,00,000
2 RESERVES AND SURPLUS	1		24,98,93,993		23,09,46,325
3 RESEARCH AND DEVELOPMENT FUND	2		7,08,21,570		6,39,72,330
4 OTHER FUND	3		11,10,46,047		8,69,51,124
			44,79,61,611		39,80,69,779
APPLICATION OF FUNDS					
1 FIXED ASSETS	4				
(A) GROSS BLOCK		86,64,169		82,10,525	
(B) LESS: DEPRECIATION		9,22,165		8,61,749	
(C) NET BLOCK			77,42,004		73,48,776
2 INVESTMENTS	5		52,03,00,000		40,53,00,000
3 CURRENT ASSETS LOAN & ADVANCES	6	29,74,22,240		33,25,68,763	
LESS : CURRENT LIABILITIES	7	37,75,02,633		34,71,47,760	
NET CURRENT ASSETS			(8,00,80,393)		(1,45,78,997)
			44,79,61,611		39,80,69,779

NOTES TO THE FINANCIAL STATEMENTS 14

THE SCHEDULE REFERRED TO ABOVE FORM AN INTEGRAL PART OF THE ACCOUNTS

AS PER OUR ATTACHED REPORT OF EVEN DATE

FOR SANDEEP RAMESH GUPTA & CO.

CHARTERED ACCOUNTANTS

FRN: 011984N

Sd/-

FCA SANDEEP GUPTA

PARTNER

M. No. 090039

PLACE: NEW DELHI

DATE: 30.10.2019

FOR FOUNDATION FOR INNOVATION AND TECHNOLOGY TRANSFER

Sd/-

P. Somarajan

(Deputy General Manager)

Sd/-

ANIL WALI

(MANAGING DIRECTOR)

FOUNDATION FOR INNOVATION AND TECHNOLOGY TRANSFER
INCOME AND EXPENDITURE ACCOUNT

FOR THE YEAR ENDED 31ST MARCH, 2019

PARTICULARS	SCHEDULE No.	31.03.2019 Rs	31.03.2018 Rs
INCOME			
PROJECT DEVELOPMENT & TECHNOLOGY RECEIPTS	8	22,05,61,835	15,04,04,260
OTHER INCOME	9	4,29,17,819	3,55,16,099
		26,34,79,654	18,59,20,359
EXPENDITURE			
PROJECT RESEARCH & DEVELOPMENT EXPENSES	10	20,76,46,221	13,81,69,552
RESEARCH & TECHNOLOGY EXPENSES	11	-	16,61,143
ESTABLISHMENT EXPENSES	12	2,34,93,898	1,97,19,706
PATENT & COPYRIGHT		-	83,137
CORPORATE FILMS		-	1,89,266
INFORMATION SUPPORT SERVICES		2,29,175	4,42,551
AWARD / SCHOLARSHIP		2,00,000	1,00,000
DEPRECIATION	4	9,22,165	8,61,749
ADMINISTRATIVE EXPENSES	13	1,20,40,527	40,92,951
		24,45,31,986	16,53,20,055
EXCESS OF INCOME OVER EXPENDITURE		1,89,47,668	2,06,00,304

NOTES TO THE FINANCIAL STATEMENTS 14

THE SCHEDULE REFERRED TO ABOVE FORM AN INTEGRAL PART OF THE ACCOUNTS

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Sd/-

FCA SANDEEP GUPTA

PARTNER

M. No. 090039

PLACE: NEW DELHI

DATE: 30.10.2019

FOR FOUNDATION FOR INNOVATION AND TECHNOLOGY TRANSFER

Sd/-

P. Somarajan

(Deputy General Manager)

Sd/-

ANIL WALI

(MANAGING DIRECTOR)

SCHEDULES FORMING PART OF THE BALANCE SHEET

	PARTICULARS		31.03.2019		31.03.2018
		Rs.	Rs.	Rs.	Rs.
1	**RESERVES & SURPLUS**				
	CAPITAL RESERVE		25,55,812		25,55,812
	GENERAL RESERVE		22,83,90,514		20,77,90,209
	EXCESS OF INCOME OVER EXPENDITURE		1,89,47,668		2,06,00,304
			24,98,93,993		23,09,46,325
2	**RESEARCH & DEVELOPMENT FUNDS**				
2(i)	**FITT PROJECT PROMOTION FUND**				
	OPENING BALANCE	1,23,46,037		1,31,71,037	
	ADD : ADDITIONS DURING THE YEAR	4,00,000		1,75,000	
		1,27,46,037		1,33,46,037	
	LESS : UTILISED DURING THE YEAR	-	1,27,46,037	10,00,000	1,23,46,037
2(ii)	FITT CONSULTANT FUND				
	OPENING BALANCE	2,14,01,480		2,03,83,744	
	ADD : ADDITIONS DURING THE YEAR	61,67,437		39,83,464	
		2,75,68,917		2,43,67,208	
	LESS : UTILISED DURING THE YEAR	32,88,642	2,42,80,275	29,65,728	2,14,01,480
2(iii)	**FITT DEPARTMENT DEVELOPMENT FUND**				
	OPENING BALANCE	2,60,88,398		2,26,04,424	
	ADD : ADDITIONS DURING THE YEAR	37,89,479		41,31,746	
		2,98,77,877		2,67,36,170	
	LESS : UTILISED DURING THE YEAR	6,62,416	2,92,15,461	6,47,772	2,60,88,398
2(iv)	**CENTRAL ADMINISTRATIVE FUND**				
	OPENING BALANCE	48,790		53,510	
	ADD : ADDITIONS DURING THE YEAR	7,30,109		3,55,267	
		7,78,899		4,08,777	
	LESS : UTILISED DURING THE YEAR	7,44,736	34,163	3,59,987	48,790
2(v)	**IIT STUDENT WELFARE FUND**				
	OPENING BALANCE	94,000		94,000	
	ADD : ADDITIONS DURING THE YEAR	-		-	
		94,000		94,000	
	LESS : UTILISED DURING THE YEAR	-	94,000		94,000
2(vi)	**FITT ADMINISTRATIVE FUND**				
	OPENING BALANCE	39,93,625		37,23,345	
	ADD : ADDITIONS DURING THE YEAR	6,20,252		3,73,966	
		46,13,877		40,97,311	
	LESS : UTILISED DURING THE YEAR	1,62,243	44,51,634	1,03,686	39,93,625
			7,08,21,570		6,39,72,330

Continued from previous page

	PARTICULARS		31.03.2019		31.03.2018
		Rs.	Rs.	Rs.	Rs.
3	OTHER FUND				
3(i)	TBIU - TIDE SEED FUND REPAYMENT				
	OPENING BALANCE	41,70,015		31,37,281	
	ADD : ADDITIONS DURING THE YEAR	57,92,160		10,32,734	
		99,62,175		41,70,015	
	LESS : UTILISED DURING THE YEAR	18,00,000	81,62,175	-	41,70,015
3(ii)	TBIU - MCIT SEED FUND REPAYMENT				
	OPENING BALANCE	43,93,601		43,93,601	
	ADD : ADDITIONS DURING THE YEAR	-		-	
		43,93,601		43,93,601	
	LESS : UTILISED DURING THE YEAR	2,00,000	41,93,601	-	43,93,601
3(iii)	TBIU - FUND (3% ROYALTY/SHARES BUY-BACK/DEFERED LOAN)				
	OPENING BALANCE	72,48,309		72,48,309	
	ADD : ADDITIONS DURING THE YEAR	42,748		-	
		72,91,057		72,48,309	
	LESS : UTILISED DURING THE YEAR	-	72,91,057		72,48,309
3(iv)	TDB - SEED FUND REPAYMENT				
	OPENING BALANCE	29,25,152		14,32,490	
	ADD : ADDITIONS DURING THE YEAR	1,09,418		15,82,938	
		30,34,570		30,15,428	
	LESS : UTILISED DURING THE YEAR	-	30,34,570	90,276	29,25,152
3(v)	BIRAC- BIG A/C				
	OPENING BALANCE	3,03,73,905		79,28,917	
	ADD : ADDITIONS DURING THE YEAR	4,52,66,373		5,10,76,628	
		7,56,40,278		5,90,05,545	
	LESS : UTILISED DURING THE YEAR	4,06,91,290	3,49,48,987	2,86,31,640	3,03,73,905
3(vi)	BIRAC-BBIF-A/C				
	OPENING BALANCE	16,89,687		15,92,398	
	ADD : ADDITIONS DURING THE YEAR	96,232		97,450	
		17,85,919		16,89,848	
	LESS : UTILISED DURING THE YEAR	4,917	17,81,002	161	16,89,687
3(vii)	DST-NIDHI A/C				
	OPENING BALANCE	3,11,50,455		-	
	ADD : ADDITIONS DURING THE YEAR	57,24,200		4,52,50,455	
		3,68,74,655		4,52,50,455	
	LESS : UTILISED DURING THE YEAR	1,25,78,350	2,42,96,305	1,41,00,000	3,11,50,455
3(viii)	BIRAC SEED FUND A/C				
	OPENING BALANCE	50,00,000		-	
	ADD : ADDITIONS DURING THE YEAR	62,06,661		50,00,000	
		1,12,06,661		50,00,000	
	LESS : UTILISED DURING THE YEAR	45,06,198	67,00,463	-	50,00,000

Continued from previous page

	PARTICULARS		31.03.2019		31.03.2018
		Rs.	Rs.	Rs.	Rs.
3	OTHER FUND				
3(viii)	GST NETWORK-CSRFUND				
	OPENING BALANCE	-		-	
	ADD : ADDITIONS DURING THE YEAR	6,37,887		-	
		6,37,887		-	
	LESS : UTILISED DURING THE YEAR	-	6,37,887	-	-
3(ix)	FITT- BIRAC LEAP FUND				
	OPENING BALANCE	-		-	
	ADD : ADDITIONS DURING THE YEAR	2,00,00,000		-	
		2,00,00,000		-	
	LESS : UTILISED DURING THE YEAR	-	2,00,00,000	-	-
			11,10,46,047		8,69,51,124

SCHEDULES FORMING PART OF THE BALANCE SHEET

	PARTICULARS		31.03.2019		31.03.2018
		Rs.	Rs.	Rs.	Rs.
5	INVESTMENTS				
	DEPOSITS WITH SCHEDULED BANK				35,53,00,000
			52,03,00,000		
	SCIENCE PARK CONTRIBUTION		-		5,00,00,000
			52,03,00,000		40,53,00,000
6	CURRENT ASSETS, LOANS AND ADVANCES				
	BALANCE WITH SCHEDULED BANK				
	- CANARA BANK	2,05,73,642		1,37,75,349	
	- SBI -1968	7,92,71,890		10,94,39,423	
	- SBI FCRA ACCOUNT	2,87,46,008		79,30,073	
	- SBI - DBT-1376	1,60,92,172		2,62,15,739	
	- SBI-BIGS	4,45,06,544		3,79,05,058	
	- HDFC BANK	4,76,43,101		5,38,06,469	
	-HDFC BANK -BIRAC SEED FUND	2,68,97,422		50,00,000	
	- SBI BBIF-1330903	28,09,893		27,13,661	
			26,65,40,671		25,67,85,772
	TAX DEDUCTED AT SOURCE (RECEIVABLE)		2,98,90,630		2,44,76,238
	DEVELOPMENT SUPPORT		4,12,670		4,12,670
	SECURITY DEPOSIT		4,087		2,94,054

	PARTICULARS		31.03.2019		31.03.2018
		Rs.	Rs.	Rs.	Rs.
6	**CURRENT ASSETS, LOANS AND ADVANCES**				
	STAFF ADVANCE		4,68,821		6,00,029
	R & D INFRASTRUCTURE -RESEARCH PARK		-		5,00,00,000
	GST TDS RECEIVABLE		1,05,360		
			29,74,22,240		33,25,68,763
7	**CURRENT LIABILITIES**				
7(i)	PROJECT ACCOUNT				
7(ia)	OPENING BALANCE ONGOING PROJECTS	16,58,92,750		15,02,32,485	
	ADD : TRANSFERRED FROM HOLD PROJECT	1,32,77,267		32,06,101	
	ADD : RECEIPTS DURING THE YEAR	26,80,02,464		18,26,35,000	
		44,71,72,480		33,60,73,585	
	LESS : UTILISED DURING THE YEAR	20,76,46,221		13,81,69,552	
	LESS : TRANSFERRED TO INCOME & EXPENDITURE A/C	1,29,15,614		1,22,34,708	
	LESS: TRANSFERRED TO HOLD PROJECT	2,19,36,161		1,97,76,576	
	CLOSING BALANCE ONGOING PROJECTS		20,46,74,484		16,58,92,750
7(ib)	OPENING BALANCE PROJECT ADVANCE	-59,54,720		-84,55,884	
	ADD : INCREASE IN PROJECT ADVANCE	-62,72,507		-41,71,526	
		-1,22,27,227		-1,26,27,410	
	LESS : DECREASE IN PROJECT ADVANCE	41,56,832		66,72,690	
	CLOSING BALANCE OF PROJECTS ADVANCE		-80,70,395		-59,54,720
7(ic)	OPENING BALANCE OF PROJECTS ON HOLD	7,98,13,479		6,32,43,005	
	ADD : INCREASE IN PROJECTS ON HOLD	2,19,36,161		1,97,76,576	
		10,17,49,641		8,30,19,581	
	LESS : DECREASE IN PROJECTS ON HOLD	1,32,77,267		32,06,102	
	CLOSING BALANCE OF PROJECTS ON HOLD		8,84,72,374		7,98,13,479
			28,50,76,463		23,97,51,509
7(ii)	OTHER CURRENT LIABILITIES				
	OPENING BALANCE OTHER CURRENT LIABILITIES	10,73,96,251		9,45,44,025	
	ADD : INCREASE IN OTHER CURRENT LIABILITIES	15,93,47,972		13,95,71,049	
		26,67,44,224		23,41,15,074	

	PARTICULARS		31.03.2019		31.03.2018
		Rs.	Rs.	Rs.	Rs.
7	**CURRENT LIABILITIES**				
7(i)	PROJECT ACCOUNT				
	LESS : DECREASE IN OTHER CURRENT LIABILITIES	17,43,18,054		12,67,18,823	
	CLOSING BALANCE OTHER CURRENT LIABILITIES		9,24,26,170		10,73,96,251
	TOTAL[7(ia)+7(ib)+7(ic)+7(ii)]		37,75,02,633		34,71,47,760
8	**PROJECT DEVELOPMENT & TECHNOLOGY RECEIPTS**				
8(i)	PROJECTS AND DEVELOPMENT FUNDS		20,76,46,221		13,81,69,552
			20,76,46,221		13,81,69,552
8(ii)	SERVICE INCOME FROM PROJECT & DEVELOPMENT FUNDS				
	FITT OVERHEAD CHARGES FROM PROJECTS		1,15,18,367		1,15,32,569
	SEMINAR/WORKSHOPS/HRD PROG		10,22,745		1,91,190
	ROYALTY INCOME		3,74,502		5,10,949
			1,29,15,614		1,22,34,708
	TOTAL[8(i)+8(ii)]		22,05,61,835		15,04,04,260
9	**OTHER INCOME**				
	CORPORATE MEMBERSHIP FEE		30,000		2,01,000
	INEREST ON INCOME TAX REFUND		5,78,564		5,57,928
	INTEREST ON BANKS DEPOSITS / BONDS		3,00,92,993		2,27,18,050
	INTEREST ON SAVINGS ACCOUNT		77,01,388		66,98,646
	FITT BBIF & TBIU OPERATING INCOME		44,73,689		46,95,505
	I-TEC-INCUBATION OPERATING INCOME		23,303		
	I-TEC-SONIPAT		-		6,40,000
	MISC. INCOME		17,882		4,970
			4,29,17,819		3,55,16,099
10	PROJECT RESEARCH & DEVELOPMENT EXPENSES				
	PROJECT RESEARCH & DEVELPOMENT EXPENSE		19,59,38,944		12,91,50,109
	TRANSFERRED TO PROJECT & DEVELOPMENT AT SOURCE		1,17,07,277		90,19,443
			20,76,46,221		13,81,69,552

	PARTICULARS		31.03.2019		31.03.2018
		Rs.	Rs.	Rs.	Rs.
11	RESEARCH & TECHNOLOGY EXPENSES				
	TBIU ACCOUNT		-		16,61,143
			-		16,61,143
12	ESTABLISHMENT EXPENSES				
	CHILDREN'S EDUCATION ALLOWANCE		-		15,000
	EMPLOYEE PROVIDENT FUND EXPENSES		16,59,444		12,13,288
	GRATUITY ACCOUNT		20,00,000		7,59,600
	HONORARIUM / OTA		46,900		7,350
	HOUSE LEASE RENT		8,21,700		8,81,808
	LEAVE TRAVEL COMPENSATION		-		-
	MEDICAL EXPENSES		2,87,722		2,79,838
	MEDICAL INSURANCE		1,53,573		1,04,439
	PAY & ALLOWANCES		1,85,24,559		1,64,58,383
			2,34,93,898		1,97,19,706
13	ADMINISTRATIVE EXPENSES				
	AUDIT FEES		44,000		25,000
	BANK CHARGES		9,247		24,617
	BOOKS & PERIODICALS		10,967		6,297
	COMMUNICATION EXPENSE		1,87,653		1,64,880
	CONTINGENT EXPENSES		23,329		2,95,308
	CONVEYANCE EXPENSE		4,75,027		3,34,008
	ELECTRICITY CHARGES		6,21,402		3,67,221
	FITT BBIF OPERATING EXPENSES		17,94,333		6,42,081
	FITT TBIU OPERATING EXPENSES		28,37,025		3,37,780
	MEMBERSHIP & SUBSCRIPTION		15,000		
	PRINTING & STATIONERY		1,18,588		1,19,191
	PROFESSIONAL FEES		8,15,000		4,08,948
	RECRUITMENT EXPENSES		4,26,106		71,672
	RENT EXPENSE		5,26,848		5,39,506
	REPAIR & MAINTENANCE		1,08,823		2,69,945
	SEMINAR & MEETING EXPENSES		86,533		58,182
	I-TEC SONIPAT-EXPENSES		-		2,12,406
	TRAVELLING EXPENSES		1,17,908		1,41,792
	INTEREST ON TAX		4,517		14,649
	OFFICE EXPENSE		1,33,871		59,469
	Interest Expense		78,300		-
	PENALTY (TAXES)		38,585		-
	ADVT. / PUBLICITY		12,020		-
	ATAL INCUBATION CENTRE		1,85,183		-
	FITT - NSRCEL JOINT MENTORING		61,243		-
	FITT SILVER JUBILEE		3,59,734		-

	PARTICULARS		31.03.2019		31.03.2018
		Rs.	Rs.	Rs.	Rs.
13	ADMINISTRATIVE EXPENSES				
	RENOVATION OF FITT MAIN OFFICE		29,49,285		-
			1,20,40,527		40,92,951

14: NOTES TO THE FINANCIAL STATEMENTS

1. SIGNIFICANT ACCOUNTING POLICIES

i) Accounting Convention

The Financial Statements of Society has been prepared under the Historical Cost Conventional methods. Society has been maintained accounts under cash system rather than accrual basis but some statutory accounts has been maintained under accrual basis.

ii) 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.

iii) Revenue Recognition

During the year, the Society recognises applied fund towards expense and transfer to its development funds and project as income of Society.

Income from Consultancy, Seminars, Retainer ships etc. is recognised on rendering of the service and receipt of the fees and FITT services charges, HRD/WORK SHOP, Royalty income which are transfer from various project funds has been treated as income of trust.

Interest income on deposit is accounted for on receipt basis consistently.

iv) 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. Service Tax has been paid to the credit of Government as per invoice raised by FITT.

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

FOR SANDEEP RAMESH GUPTA & CO. FOR FOUNDATION FOR INNOVATION AND TECHNOLOGY TRANSFER

CHARTERED ACCOUNTANTS

Sd/-	Sd/-	Sd/-
FCA SANDEEP GUPTA	**P. Somarajan**	**ANIL WALI**
	(Deputy General Manager)	(MANAGING DIRECTOR)

M. No. 090039

PLACE: NEW DELHI

DATE: 30.10.2019

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