

HOMI BHABHA ACADEMIC BLOCK

In the service of the Nation
Since 1967

NATIONAL INSTITUTE
OF
TECHNICAL
TEACHERS' TRAINING
AND RESEARCH



ANNUAL REPORT 2014-15

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**LIST OF MEMBERS OF THE NITTTR CHANDIGARH SOCIETY
AS ON 31.03.2015**

Sr. No.	Name and Designation with full address	Status
1.	Dr. K.K. Talwar Chairman, Board of Governors, NITTTR, Sector 26, CHANDIGARH - 160 019	Chairman
2.	Shri Yogendra Tripathi, IAS Joint Secretary & Financial Adviser (IFD), Department of Higher Education, Ministry of Human Resource Development, Government of India, Shastri Bhawan, NEW DELHI – 110 115	Member
3.	Shri Shashi Prakash Goyal , IAS Joint Secretary (TEL), Department of Higher Education, Ministry of Human Resource Development, Government of India, Shastri Bhawan, NEW DELHI – 110 115	Member
4.	Director Technical Education, Govt. of Rajasthan W-6 Residency Road, JODHPUR – 342 001	Member
5.	Director Technical Education, Govt. of Uttar Pradesh Vikas Nagar, KANPUR – 208024	Member
6.	Director Technical Education, Govt. of Uttarakhand N.C.C. Block, Polytechnic Campus, SRINAGAR (GARHWAL)	Member
7.	Director Higher & Technical Education, Govt. of Arunachal Pradesh, ITANAGAR – 791111	Member

Sr. No.	Name and Designation with full address	Status
8.	Director Technical Education, Govt. of Tamil Nadu, Sardar Patel Road, Guindy, CHENNAI – 600 025	Member
9.	Vice Chancellor Punjab Technical University Jalandhar – Kapurthala Highway, Near Pushpa Gujral Science City, KAPURTHALA (PUNJAB) – 144601	Member
10.	Advisor - I All India Council for Technical Education, 7 th Floor, Chander Lok Building, Janpath, NEW DELHI – 110 001	Member
11.	Dr. M.P. Poonia Director, National Institute of Technical Teachers Training and Research, Sector 26, CHANDIGARH – 160 019	Member Secretary

**LIST OF MEMBERS OF THE BOARD OF GOVERNORS
OF NITTTR, CHANDIGARH
AS ON 31.03.2015**

Sr. No.	Name and Designation with full address	Status
1.	Dr. K.K. Talwar Chairman, Board of Governors, NITTTR, Sector 26, CHANDIGARH - 160 019	Chairman
2.	Shri Yogendra Tripathi, IAS Joint Secretary & Financial Adviser (IFD), Department of Higher Education, Ministry of Human Resource Development, Government of India, Shastri Bhawan, NEW DELHI – 110 115	Member
3.	Shri Shashi Prakash Goyal , IAS Joint Secretary (TEL), Department of Higher Education, Ministry of Human Resource Development, Government of India, Shastri Bhawan, NEW DELHI – 110 115	Member
4.	Director Technical Education, Govt. of Rajasthan W-6 Residency Road, JODHPUR – 342 001	Member
5.	Director Technical Education, Govt. of Uttar Pradesh Vikas Nagar, KANPUR – 208024	Member
6.	Director Technical Education, Govt. of Uttarakhand N.C.C. Block, Polytechnic Campus, SRINAGAR (GARHWAL)	Member
7.	Director Higher & Technical Education, Govt. of Arunachal Pradesh, ITANAGAR – 791111	Member
8.	Director Technical Education, Govt. of Tamil Nadu, Sardar Patel Road, Guindy, CHENNAI – 600 025	Member

Sr. No.	Name and Designation with full address	Status
9.	Vice Chancellor Punjab Technical University Jalandhar – Kapurthala Highway, Near Pushpa Gujral Science City, KAPURTHALA (PUNJAB) – 144601	Member
10.	Prof. I.K. Bhat Director, Malaviya National Institute of Technology (MNIT), Administrative Block – I, MNIT Campus, JLN Marg, JAIPUR (RAJASTHAN) – 302017	Member
11.	Shri Sunil Kant Munjal Joint Managing Director, Hero Motocorp Ltd., and Chairman Hero Corporate Service Ltd., 34, Community Centre, Basant Lok, Vasant Vihar, NEW DELHI – 110057	Member
12.	Advisor - I All India Council for Technical Education, 7 th Floor, Chander Lok Building, Janpath, NEW DELHI – 110 001	Member
13.	Dr. (Mrs.) SP Bedi Professor Education and Educational Management National Institute of Technical Teachers Training and Research, Sector 26, CHANDIGARH – 160 019	Member
14.	Dr. M.P. Poonia Director, National Institute of Technical Teachers' Training & Research, Sector 26, CHANDIGARH – 160 019	Member - Secretary

**LIST OF MEMBERS OF THE FINANCE COMMITTEE
OF NITTTR, CHANDIGARH
AS ON 31.03.2015**

Sr. No.	Name and Designation with full address	Status
1.	Dr. K.K. Talwar Chairman, Board of Governors, NITTTR, Sector 26, CHANDIGARH - 160 019	Chairman
2.	Shri Yogendra Tripathi, IAS Joint Secretary & Financial Adviser (IFD), Department of Higher Education, Ministry of Human Resource Development, Government of India, Shastri Bhawan, NEW DELHI – 110 115	Member
3.	Shri Shashi Prakash Goyal , IAS Joint Secretary (TEL), Department of Higher Education, Ministry of Human Resource Development, Government of India, Shastri Bhawan, NEW DELHI – 110 115	Member
4.	Dr. M.P. Poonia Director, National Institute of Technical Teachers Training and Research, Sector 26, CHANDIGARH – 160 019	Member Secretary

**LIST OF MEMBERS OF THE ACADEMIC COUNCIL
AS ON 31.03.2015**

Sr. No.	Name and Designation with full address	Status
1.	Dr. M P Poonia Director, NITTTTR, Sector - 26, CHANDIGARH - 160 019	Chairman
2.	Dr. N Sathyamurthy Director, IISER, Knowledge City, Sector – 81, P.O. Manauli, SAS Nagar, Mohali (Punjab) - 140 306	Eminent Member
3.	Dr. I K Bhat Director, Malaviya National Institute of Technology, JLN Marg, JAIPUR – 302 017	Eminent Member
4.	Dr. Ashok Chitkara Chancellor, Chitkara University, Sarswati Kendra, SCO 160-161, Sector - 9 C, CHANDIGARH - 160017	Special Invitee
5.	Dr. M M Malhotra, (former Principal, TTTI, Chandigarh) H.No. 647, Sector - 8, PANCHKULA (HARYANA)	Special Invitee
6.	Registrar Panjab University, Sector -14, CHANDIGARH - 160 014	Special Invitee
7.	Dr. (Ms.) PK Tulsi Dean, Research and Development and Professor & Head, Education & Educational Management, NITTTTR, Sector-26, CHANDIGARH 160 019	Member Secretary
8.	Dr. JS Saini Dean, Extension and Consultancy and Professor & Head, Rural Development Department, NITTTTR, Sector-26, CHANDIGARH 160 019	Member

Sr. No.	Name and Designation with full address	Status
9.	Dr. SBL Sachan Professor and Head, Electronics and Communication Engineering Department, NITTTR, Sector-26, CHANDIGARH - 160 019	Member
10.	Dr. B S Pabla Professor and Head, Information Management and Co-ordination, NITTTR, Sector-26, CHANDIGARH - 160 019	Member
11.	Dr. S S Banwait Professor and Head, Mechanical Engineering Department, NITTTR, Sector-26, CHANDIGARH - 160 019	Member
12.	Dr. (Mrs.) S P Bedi Professor, Education and Educational Management Department, NITTTR, Sector-26, CHANDIGARH - 160 019	Member
13.	Dr. A B Gupta Professor and Head, Curriculum Development Centre, NITTTR, Sector-26, CHANDIGARH - 160 019	Member
14.	Dr. Suresh Dhameja Professor and Head, Entrepreneurship Development and Industrial Co-ordination, NITTTR, Sector-26, CHANDIGARH - 160 019	Member
15.	Dr. Sanjay Sharma Professor and Head, Civil Engineering Department, NITTTR, Sector-26, CHANDIGARH - 160 019	Member
16.	Dr. Hemant Sood Professor, Civil Engineering Department, NITTTR, Sector-26, CHANDIGARH - 160 019	Member
17.	Dr. Sunil Dutt Professor Education and Educational Management and Faculty Incharge, Academic Cell, NITTTR, Sector-26, CHANDIGARH - 160 019	Member

Sr. No.	Name and Designation with full address	Status
18.	Dr. B C Choudhary Professor and Head, Applied Science Department NITTTR, Sector -26, CHANDIGARH - 160 019	Member
19.	Dr. Rakesh Kumar Wats Professor and Head Media and Continuing Education Faculty Incharge, Administration, NITTTR, Sector -26, CHANDIGARH - 160 019	Member
20.	Dr. (Mrs.) Maitreyee Dutta Professor and Head, Computer Science Department, NITTTR, Sector-26, CHANDIGARH - 160 019	Member
21.	Dr. Sukhdeep Singh Dhani Professor, Mechanical Engineering Department NITTTR, Sector 26, CHANDIGARH - 160 019	Member
22.	Dr. Upendra Nath Roy Professor, Rural Development Department NITTTR, Sector 26, CHANDIGARH - 160 019	Member
23.	Dr. C Rama Krishna Professor, Computer Science and Engineering Department, NITTTR, Sector-26, CHANDIGARH - 160 019	Member
24.	Dr. (Mrs.) Lini Mathew Associate Professor, Faculty Incharge, Electrical Engineering Department, NITTTR, Sector-26, CHANDIGARH 160 019	Member
25.	Shri Manmohan Singh Senior Librarian and (Acting Chief Librarian) NITTTR, Sector-26, CHANDIGARH - 160 019	Member
26.	Er. Suresh Kumar Gupta Associate Professor, Curriculum Development Centre, NITTTR, Sector-26, CHANDIGARH - 160 019	Member

Sr. No.	Name and Designation with full address	Status
27.	Er. (Mrs.) Rama Chhabra Associate Professor, , Information Management and Co-ordination NITTTTR, Sector-26, CHANDIGARH - 160 019	Member
28.	Er. Patange Sudhakar Rao Assistant Professor, Mechanical Engineering Department, NITTTTR, Sector-26, CHANDIGARH - 160 019	Member
29.	Er. (Mrs.) Kanika Sharma Assistant Professor, Electronics and Communication Engineering Department NITTTTR, Sector-26, CHANDIGARH - 160 019	Member

1.0 THE INSTITUTE

National Institute of Technical Teachers Training and Research, Chandigarh, formerly known as Technical Teachers Training Institute (TTTI), was established in 1967 to meet the requirements of training polytechnic teachers for the growth and development of polytechnic education in the northern region of the country. It had the collaboration of Royal Netherlands Government upto 1974. The institute ushered a new era in November 2003, with its changed name and enhanced status as National Institute of Technical Teachers Training and Research (NITTTR). It is one of the four such national institutes in the country with focus on the northern region comprising the states of Haryana, Himachal Pradesh, Jammu and Kashmir, Punjab, Rajasthan, Uttar Pradesh, Uttarakhand, National Capital Territory of Delhi and Union Territory of Chandigarh. Presently, the outreach of the programmes and activities of the institute covers the entire gamut of technical education. It is now reckoned as a resource institute for the technical education system providing services to its clientele covering faculty/staff of technical institutions, officials of directorates/boards of technical education, central and state government departments, industry, students from technical institutes, community and trainees from overseas. NITTTR, Chandigarh is an ISO 9001- 2008 certified organisation.

The institute is an autonomous organisation registered under the Societies Registration Act 1860. It is managed by a Board of Governors. Director is the executive head of the institute. The institute is situated in a well developed campus in Sector 26, Chandigarh covering an area of over 6.85 hectares housing the academic buildings, hostels, guest house and residential accommodation for faculty and staff. The institute also has residential campus in sectors 29 and 42. The institute is about 10 kms from Inter State Bus Terminus in Sector 43 and 05 kms from Chandigarh Railway Station.

VISION

- To be a lead resource institute for promoting excellence in technical education system.

MISSION

- To offer continuing education and training programs for the faculty and staff of the technical education system.
- To develop need-based curricula for technical education programs.
- To develop instructional material to enhance effectiveness of teaching-learning process.
- To undertake research and development in engineering & technology and technical education.
- To provide extension and consultancy services to technical education system.

1.1 Broad Objectives of the Institute

- ◆ To provide professional education and training for teachers of engineering and technology disciplines in technical institutions for advancement of learning towards promoting excellence in technical education and industry.
- ◆ To strive for continuous improvement in instruction and research in engineering and technology disciplines and research in management of technical education.
- ◆ To actively support the growth and quality improvement of technical education in the country through involvement in activities at national and state levels.

1.2 Operational Objectives

- To act as a centre for offering quality training programmes for teachers as per need of the system, covering the entire gamut of technical education including polytechnics, engineering colleges, vocational and management education at national level
- To arrange for practical training of technical teachers in industries
- To undertake systemic research to provide research inputs for development of technical education, training systems and its management
- To undertake action research for development of innovative methods, processes and practices for improvement of teaching learning environment in technical and vocational education institutions
- To design new instructional system and strategies for production of multimedia learning materials
- To develop and disseminate learning resources like Text books, Laboratory Manuals, Video Programmes, Computer Assisted Instructional Multimedia Packages to technical and vocational institutions and other organisations
- To offer programmes for technical and vocational teachers through distance learning mode using state of the art technologies
- To offer courses / programmes for technical and vocational teachers to suit overseas demand especially SAARC and ASEAN countries
- To collaborate with community and industry in organising Continuing and Non-formal vocational education programmes
- To undertake consultancy and extension work for industry, technical institutions/ organizations
- To provide support services to Government of India schemes related to technical and vocational education system and as entrusted by MHRD, Government of India, from time to time
- To cooperate with educational or other institutions in any part of the world having objectives wholly or partly similar to those of the institute by exchange of teachers and scholars and generally in such manner as may be conducive to their common objectives

The institute is continually striving to be in the forefront in all the functional areas towards achievement of the stated objectives.

1.3 Programmes and Activities

To achieve its stated objectives, the institute undertakes the following spectrum of activities:

- Education and Training Programmes
- Curriculum Development
- Instructional Material Development
- Research and Development
- Extension Services
- Consultancy in Technical Education and Technology Areas

Keeping in tune with the various developing needs of the country, the institute presently extends its services in the following areas as well:

- Media Development including Information Resources, their acquisition, storage and retrieval
- Entrepreneurship Development
- Industry Institute Interaction
- Continuing Education for Working Engineers/Technicians/Managers
- Community Development Through Polytechnics
- Integrating Persons with Disabilities in the Mainstream of Technical and Vocational Education.

In addition to the above programmes and activities, the institute offers consultancy services to international, national and state level organisations in the above areas.

1.4 Management

The Institute is managed by a Board of Governors, which is responsible for its general direction and control, as laid down in the Memorandum of Association and Rules and Regulations of the National Institute of Technical Teachers Training and Research, Chandigarh Society. The Director is the Chief Academic and Executive Authority and also an ex-officio member secretary of the Board/Society. Under provisions of the Memorandum of Association (MoA), the Board of Governors is assisted by the following committees:

- ◇ Academic Council
- ◇ Finance Committee

Dr. M P Poonia continued to be the Director of the institute. In terms of the Memorandum of Association, he discharged the functions of the Academic Council, as its Chairman.

2.0 ACHIEVEMENT HIGHLIGHTS

Achievements of the institute's programmes and activities are reported under **05** major areas viz; Staff Development; Curriculum Development; Instructional Material Development; Research and Development; Extension Services and Consultancy.

Distinctive Programmes and Activities (2014-15)

- **NITTTR Chandigarh** Awarded Certificate of Participation in **UNESCO-Hamdan Bin Rashid Al Maktoum award** for Distinguished Academic Performance during the year 2013-2014.
- **Dr. M.P. Poonia, Director** awarded **Bharatmata Award** by Indian Institute of Oriental Heritage, (An International Institute of Oriental Studies and Research) during 37th National Seminar and Convocation Ceremony on 16 August, 2014 at Kolkata.
- **Dr. B S Pabla, Professor and Head, Information Management and Co-ordination Department** awarded **Eminent Engineering Personality Award-2014** by Institution of Engineers (India), Haryana State Centre at GIMT, Kurukshetra on 15 September, 2014.
- **Dr. PK Tulsi, Professor and Head, EMGT and Dean Research and Development** awarded **ISTE Best Teacher of Chapter Award 2014 during ISTE Section Faculty Convention 2014** organised by Swami Vivekanand Institute of Engineering and Technology Banur.
- **254** Students admitted in Master's Degree Programmes (Regular and Modular) in **06** disciplines.
- **76** Students on roll for Ph.D. Programmes in different disciplines at the Institute.
- IEEE-IAW-2014: **Indian Antenna Week** at Chandigarh, 26-30 May, 2014.
- **4th** National Abilympics for **Differently Abled Persons** at NITTTR, Chandigarh, 03-05 November, 2014.
- National Conference on **Global Trends in Entrepreneurship** at NITTTR, Chandigarh, 27-28 November, 2014.
- International Conference on **Recent Advances and Trends in Electrical Engineering (RATEE 2014)** at NITTTR, Chandigarh, 23-24 December, 2014.
- CPSC – NITTTR joint National Seminar on **Issues, Challenges and Future Directions in Technical and Vocational Education and Training (TVET) Sector** at NITTTR, Chandigarh, 12 February, 2015.
- NITTTR-MNIT joint National Conference on **Mathematical Analysis and Computation** at MNIT, Jaipur, 20-21 February, 2015.
- National Conference on **Sustainable Infrastructure Development** at NITTTR, Chandigarh 26-27 February, 2015.
- **5th** National Convention on **Organic Farming** was organised by NITTTR, Chandigarh in association with NGOs viz. Organic Farming Association of India, Kheti Virasat Mission and Asha from 28 Feb – 02 March, 2015.

- National Conference on **Curriculum Innovations and Challenges in Technical Education** at NITTTR, Chandigarh, 24-25 March, 2015.
- National Exposition on **Clean Technologies** sponsored by DSIR, Govt. of India at NITTTR, Chandigarh, 24-26 March, 2015.
- National Conference on **Computing Technologies**, at NITTTR, Chandigarh, 30-31 March, 2015.
- **08** MOUs signed with Technical Institutions and Industry for undertaking Collaborative Projects
- Design and Testing Services to Industry (**11** Projects)
- Job Fair for Persons with Disabilities for the Qualified Differently Abled Persons in which **57** persons with disabilities were selected by **09** companies.
- **06** Research Studies completed.

2.1 Staff Development

The institute continued to grow in terms of academic activities, both qualitatively and quantitatively. The qualitative dimensions covered related to continued improvements by way of increased emphasis on applications, case studies and industrial exposure in training programmes besides more efficient and effective use of multi-media in teaching-learning process. During 2014-15, the details of the long term and short term training programmes conducted by the institute for faculty/staff of engineering colleges and polytechnics are given below:

2.1.1 Long Term Programmes

2.1.1 (a) Ph.D. Programmes

Institute is an approved Research Centre of Panjab University, Chandigarh and Punjab Technical University, Jalandhar for Ph.D. Programmes. As on March 2015, **76** students are undergoing Ph.D. programmes in different disciplines. The Institute is also a Ph.D. Centre under QIP (Poly) Scheme of AICTE. Out of these **76** students, **24** candidates joined Ph.D under QIP (Poly) Scheme of AICTE and **02** under INSPIRE Scheme of Department of Science and Technology.

2.1.1 (b) M.Tech. / M.E. Programmes

The Institute offers industry-oriented and practice-based Master's Degree Programmes of 02 years duration affiliated to Panjab University, Chandigarh in the following disciplines:

- Mechanical Engineering (Manufacturing Technology)
- Civil Engineering (Construction Technology and Management)
- Computer Science and Engineering

- Electrical Engineering (Instrumentation and Control)
- Electronics and Communication Engineering

The institute is offering these Master's Degree Programmes on modular basis also of 3½ years duration in the above six disciplines. The ME programmes are duly approved by AICTE and affiliated to Panjab University.

Admissions made in these programmes during 2014-15 are given below:

Sr. No.	Name of the Programme	No. of Participants			Total	State-wise Break-up
		Polys	Engg. Colleges	Industry/ General		
MASTER'S DEGREE (REGULAR MODE)						
1.	Mechanical Engineering (Manufacturing Technology)	02	06	19	27	CH-04, HA-04, HP-04, PU-04, RA-01, UP-09, UTK-01
2.	Civil Engineering (Construction Technology and Management)	01	03	22	26	CH-08, HA-02, HP-07, J&K-02, PU-07
3.	Computer Science and Engineering	02	05	19	26	CH-02, HP-02, J&K-01, MH-01, MNPR-01, PU-09, RA-02, UP-8
4.	Electrical Engineering (Instrumentation and Control)	03	12	10	25	BH-02, HP-08, JHK-01, MP-01, PU-02, UP-09, UTK-01, WB-01
5.	Electronics and Communication Engineering	01	09	09	19	CH-03, HA-01, HP-01, PU-04, RA-02, UP-08
	Total	09	35	79	123	BH-02, CH-17, HA-07, HP-22, JHK-01, J&K-03, MH-01, MP-01, MNPR-01, PU-26, RA-05, UP-34, UTK-02, WB-01

Sr. No.	Name of the Programme	No. of Participants			Total	State-wise Break-up
		Polys	Engg. Colleges	Industry/ General		
MASTER'S DEGREE (MODULAR MODE)						
1.	Mechanical Engineering (Manufacturing Technology)	08	16	03	27	AS-01, CH-01,HA-04, HP-05, KE-02, PU-02, RA-02, UP-10
2.	Civil Engineering (Construction Technology and Management)	11	04	09	24	CG-02, CH-01, HP-07, PU-08, RA-02, TN-01,UP-03
3.	Computer Science and Engineering	03	18	07	28	CH-01, HA-03,HP-04, PU-05, RA-02, SKM-01, UP-12
4.	Electrical Engineering (Instrumentation and Control)	03	12	03	18	BH-01, CH-01, HP-07, PU-01, UTK-01,UP-07
5.	Electronics and Communication Engineering	06	21	07	34	BH-01, CG-02, CH-03, HA-01, HP-06, J&K-02, KE-01, MH-01, PU-06, RA-02, SKM-02, UP-07
	Total	31	71	29	131	AS-01, BH-02, CG-04, CH-07, HA-08, HP-29, J&K-02, KE-03, MH-01, PU-22, RA-08, SKM-03, TN-01, UTK-01, UP-39

Note: **114** (regular) and **127** (modular) students of previous batches are also on roll.

ABBREVIATIONS USED			
AP	Andhra Pradesh	MH	Maharashtra
AS	Assam	MP	Madhya Pradesh
BH	Bihar	MNPR	Manipur
CG	Chhattisgarh	PU	Punjab
CH	Chandigarh	RA	Rajasthan
DE	Delhi	SKM	Sikkim
HA	Haryana	TN	Tamil Naidu
HP	Himachal Pradesh	UTK	Uttarakhand
J&K	Jammu and Kashmir	UP	Uttar Pradesh
JHK	Jharkhand	WB	West Bengal
KE	Kerala		

2.1.2 Short Term Programmes (STCs)

The institute offers need-based and customized short-term courses of one to two weeks duration for faculty/staff of engineering colleges, polytechnics and working professionals from industry. During the year 2014-15, **268** short term programmes were conducted through contact as well as ICT mode for faculty/staff of polytechnics and engineering colleges which were attended by **14046** teachers from various states of the country.

(i) **Training Programmes:**

A) **ME Students on roll**

Regular	237
Modular	258

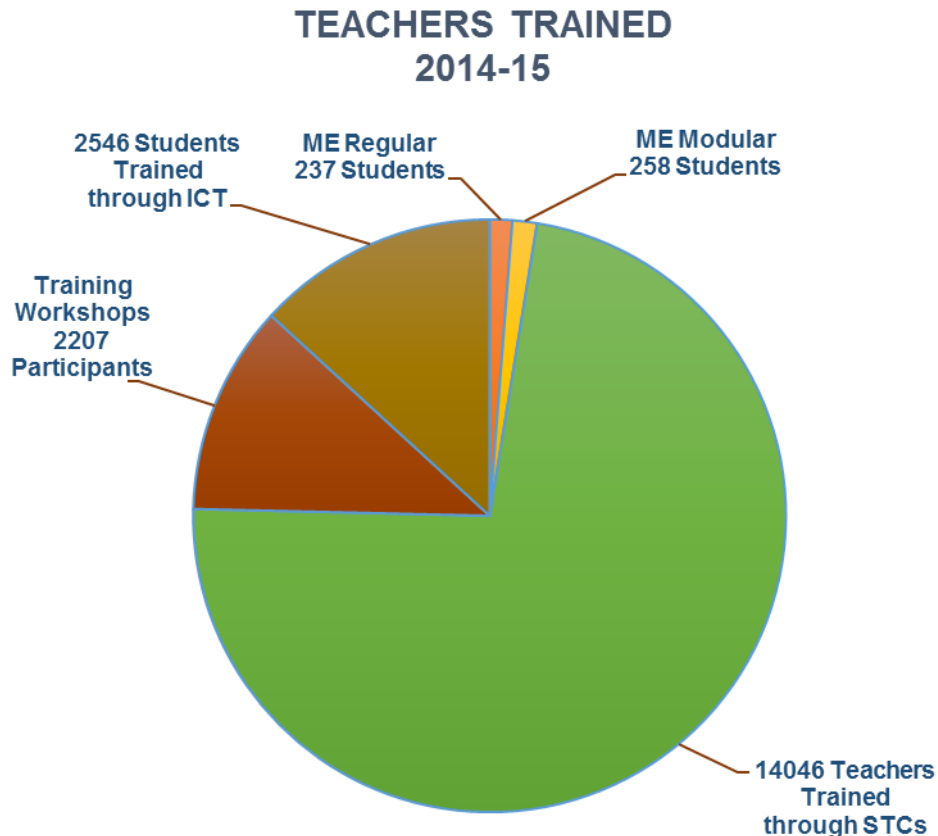
B) **Short Term Courses**

	No. of Courses	No. of Teachers Trained
Contact Mode	202	3136
ICT Mode	66	10910
Total	268	14046

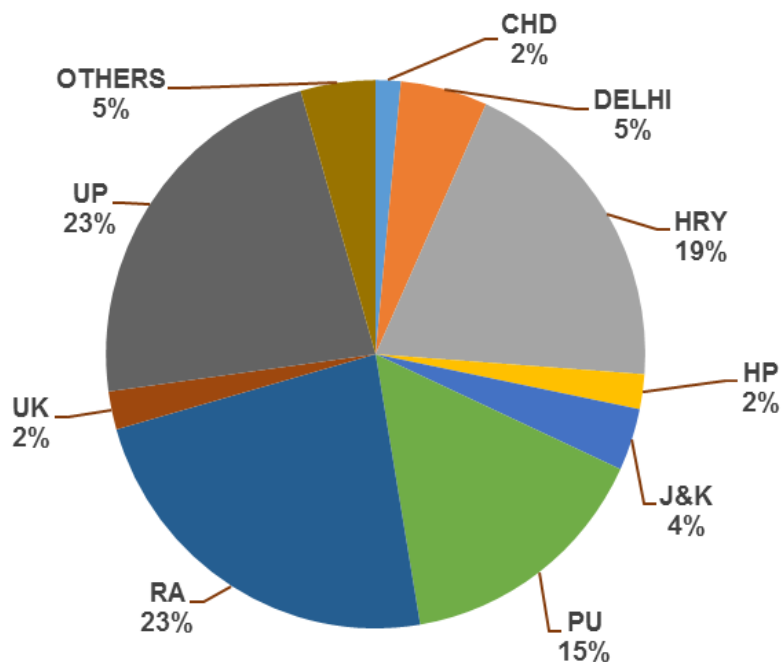
C) **Training Workshops**

No. of Workshops	78
No. of Participants	2207

D) **No. of Students Trained** 2546



STATEWISE PERCENTAGE PARTICIPATION IN SHORT TERM COURSES FOR THE YEAR 2014-15



(ii) Training Programmes through ICT

During the year 2014-15, the institute offered Induction Training programmes as well as content updating programmes in technical disciplines to the teachers of technical institutions through ICT.

During the year under report, ICT based training programmes conducted by the institute are given below:

No. of ICT based Induction Training Programmes Conducted	23
No. of Teachers Trained	2522
No. of ICT Based Content Updating Training Programmes	43
No. of Teachers Trained	8388

NATIONAL CONFERENCES AND SEMINARS

Indian Antenna Week, 26-30 May, 2014 Workshop Cum Conference on Advanced Antenna Technology

IEEE AP-MTT Joint Chapter of Kolkata Section, in association with the National Institute of Technical Teachers Training and Research, Chandigarh and Punjab Technical University, Punjab organised the 5th Edition of the Indian Antenna Week 2014 at hotel J W MARRIOTT, Chandigarh (India) during 26 – 30 May.

200 delegates from different educational institutions and industry from various parts of the country participated in this 5 day event. The event was first of its kind in India where only the antenna researchers gathered

at a common forum for the exchange of scientific and technical information, both at academic and industrial levels, and fosters collaboration and cooperation in the Antenna & Propagation domain both at India and global levels. The major objective of Indian Antenna Week 2014 was to bring the industry and academic institutions together to evaluate new market opportunities, implement new technologies and discover future applications and technical developments in number of areas related to antenna.



International Conference on Recent Advances and Trends in Electrical Engineering (RATEE 2014), 23-24 December, 2014

The Electrical Engineering Department organized an International Conference on “Recent Advances and Trends in Electrical Engineering (RATEE-2014)” during 23-24 December, 2014. 100 papers were received on the topics related to Control Applications, Power System, Power Electronics, Instrumentation, Soft Computing and recent trends in Electrical Engineering field. The review committee finalized 70 papers, which were published as proceedings.



Dignitaries on the dias

Dr. Devinder Singh Sandhu, VC, Kurukshetra University delivered the inaugural address. Dr. Chanan Singh, Regent’s Professor & Irma Runyon Chair, Texas A & M University, Texas, USA and Dr. Naveen Puppala, Associate Professor, NMSU, Clovis, USA presented research ideas on the topic **“Recent Trends and Future Needs of Power System Reliability”** and **“Electronics in Food and Agriculture”** during the conference. The valedictory session was presided by Dr. R.P Dahiya, VC, Deenbandhu Chhottu Ram University of Science and Technology (DCRUST), Murthal, Haryana.

National Conference on 'Global Trends in Entrepreneurship', 27-28 November, 2014

The department of Entrepreneurship Development and Industrial Coordination (EDIC) conducted a two days National Conference on 'Global Trends in Entrepreneurship' at NITTTR, Chandigarh from 27-28 November, 2014. 54 delegates across the country from different Engineering Colleges, Polytechnics, Directorates of Technical Education, Enterprises and Entrepreneurial Support Agencies participated in the conference. 24 papers were contributed in the conference. Three keynote presentations were also made in the conference.



Dr. M.P. Poonia, Director interacting with the participants in the valedictory session

National Seminar on Issues, Challenges and Future Directions in Technical and Vocational Education and Training (TVET) Sector, 12 February, 2015

A joint National Seminar on Issues, Challenges and Future Directions in Technical and Vocational Education and Training (TVET) Sector in collaboration with CPSC was organised on 12 February, 2015 at NITTTR, Chandigarh, which was attended by 84 participants

National Conference on Mathematical Analysis and Computation, 20-21, February, 2015

A National Conference on Mathematical Analysis and Computation was organised by the institute in collaboration with MNIT, Jaipur from 20-21 February, 2015 at MNIT, Jaipur. The primary goal of the conference was to promote research and development activities in Mathematics and Computational Sciences.

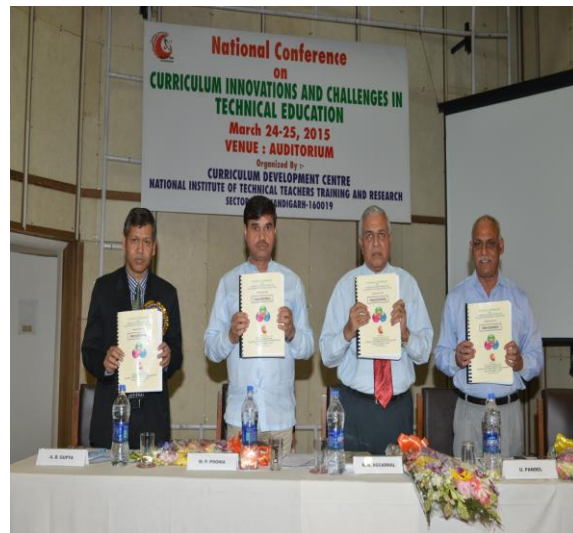
National Conference on Sustainable Infrastructure Development – 2015 (NCSID), 26-27 February, 2015

National Conference on Sustainable Infrastructure Development - 2015 (NCSID-2015) was organized by the Civil Engineering Department, NITTTR, Chandigarh and Civil Engineering Department, Chitkara University, Himachal Pradesh in association with Institution of Engineers, Punjab and Chandigarh Centre from 26-27 February, 2015. The conference was inaugurated by Mr. D.N. Basu, Sr. Technical Director, Simplex Infrastructure Ltd, New Delhi. 90 delegates from academic institutions and industry from different parts of the country participated in the conference. Infrastructure Planning and management, sustainable building sector, sustainable water resources, sustainable materials and construction practices and sustainable transport infrastructure were the technical sessions in which more than 40 delegates presented their research work and key note addresses were given by eminent faculty, scientists and industry professionals.



National Conference on Curriculum Innovations and Challenges in Technical Education, 24-25 March, 2015

A National Conference on Curriculum Innovations and Challenges in Technical Education was organized by the Curriculum Development Centre from 24-25 March, 2015. The conference was attended by 100 delegates from various engineering colleges, polytechnics, universities and management institutions from all over the country. The objective of the conference was to bring together researchers, teachers and practitioners from academic and industry on a common platform to focus on developments and innovations in the area of curriculum design, implementation and evaluation so as to meet the challenges of technical education. 25 papers were presented during the conference.



Release of Conference Proceedings

Clean Technology Exposition, 24-26 March, 2015

An exposition on Clean Technologies was organized by the Civil Engineering Department, in association with UltraTech Cement from 24-26 Mar, 2015 under the aegis of Department of Scientific and Industrial Research, Govt. of India. The conference was inaugurated by Dr. Jyoti S A Bhatt, Scientist G, DSIR. She highlighted the various initiatives being taken by the government to promote clean production technologies. She urged the students to become stakeholders in this green mission since they are the future. Dr. M.P. Poonia, Director, NITTTR, Chandigarh on this occasion highlighted the environmental pollution that has degraded the earth immensely. Dr. Ashok Sharma, CEO, Cleantech Foundation, New Delhi in his keynote address highlighted the innovative clean technologies available these days. About 20 industries showcased their clean technologies.

National Conference on “Computing Technologies”, 30-31 March, 2015

The department of Computer Science organized National Conference on Computing Technology on 30-31 March, 2015 which was aimed to bring together leading academic scientists, researchers and research scholars to exchange and share their experiences and research results about all aspects of Computing Technology. It also provided the premier interdisciplinary and multidisciplinary forum for researchers, practitioners and educators to present and discuss the most recent innovations, trends, and concerns, practical challenges encountered and the solutions adopted in the field of Computing Technology. 64 participants from all over India attended the conference. Papers on Cloud computing, grid computing, mobile computing, digital image processing were presented.

4TH NATIONAL ABILYMPICS, 3-5 NOVEMBER, 2014

The National Institute of Technical Teachers Training and Research, Chandigarh in collaboration with NAAI, Delhi organised 4th National Abilympics at its campus from 3-5 November, 2014. Abilympics are Vocational Skill Contests for persons with disabilities which are held once after every four years.

Sub- regional, Regional, National and International Abilympics are held on the pattern of Olympics. India has been participating in Abilympics right from their beginning in Japan in 1981. Subsequent International Abilympics were held in Colombia, Hong Kong, Australia, Czech Republic, India, Japan and South Korea respectively.



Inaugural session of 4th National Abilympics

India started organizing Abilympics since 2002. The first National Abilympics was held in Delhi in 2002, second again in Delhi in 2006. Jabalpur in MP hosted the 3rd National Abilympics in 2010 and NITTTR, Chandigarh had the privilege of hosting this 4th National Abilympics at its campus from 3-5 November, 2014.

The event was inaugurated by Shri Thaawar Chand Gahlot, Hon'ble Union Minister of Social Justice and Empowerment, Govt. of India. Dr. K.K Talwar, Chairman BOG, NITTTR Chandigarh, Dr. Uma Tuli Secretary General, NAAI, Delhi, Padmashri Kannubhai Tailor, Dr. MP Poonia, Director, NITTTR Chandigarh and Prof. J.S Saini, Coordinator of the event were present during the Inaugural session. The MOSJE was represented by Smt. Stuti Kacker, IAS, Secretary to Govt. of India and Shri Awanish Kumar Awasthi, IAS, Joint Secretary to Govt. of India.

The event involved conduct of 34 skill contests. 414 contestants, 66 escorts and 99 officials, approximately 150 student volunteers, almost all faculty and staff of the institute were involved in this event.



Glimpses of Skill Contests

There were 31, 14, 08, 34 and 10 medal winners from northern, southern, eastern, western and central zone. Mrs. Rajwant Sandhu, Member CAT, Chandigarh, Air Marshal Satish Inamdar, President NAAI, Dr. Bhushan Punani, BPA, Ahmedabad, Dr. Falguni Gupta, Director NITTTR, Kolkata, Dr. Mrs. Uma Tuli, Secretary Gen. NAAI, Dr. MP Poonia, Director NITTTR, Chandigarh, Dr. Manoj Arora, Director PEC University of Technology, Lt. Gen. SP Kochhar CEO, Telecom Sector Skill Council and Prof. J.S Saini, Coordinator National Abilympics – 2014 gave away the awards to the contestants.

NATIONAL CONVENTION ON ORGANIC FARMING, 28 FEBRUARY – 2 MARCH, 2015

Three day National Convention on “Organic Farming” was organized by NITTR Chandigarh from 28th February to 2nd March 2015 in association with NGOs namely Organic Farming Association of India, Kheti Virasat Mission and ASHA. The multiple activities under this convention were bio-diversity seeds festival, organic food preparation, urban kitchen gardening workshop and farmers conference.

The convention was inaugurated by Shri Manohar Lal Khattar, Hon’ble Chief Minister, Haryana. Dr. M P Poonia, Director of the institute shared his experience of modern farming being practiced in his village in Rajasthan and he stressed on strategies for creating pollution free agriculture, groundwater and air, so that quality of life of villages in general and cities in particular may be improved. Shri Manohar Lal Khattar, Chief Minister, Haryana discussed the ill effects of modern farming and announced to convert about 10% land under organic farming cultivation. Ms. Maneka Gandhi, Hon’ble Minister, Women and Child Development, Govt. of India also visited the bio-diversity festival on 28th February 2015.



Shri Manohar Lal Khattar, Hon’ble Chief Minister, Haryana delivering the inaugural address



Dr. M P Poonia, Director of the Institute speaking during the inaugural session



Ms. Maneka Gandhi, Hon’ble Minister, Women and Child Development, GOI interacting with farmers.

There was a live telecast of this three day event through 11 remote centres in the country. About 1000 farmers, students and teachers got connected through above remote centres.



Live telecast from ETV Studio NITTR Chandigarh



Shri Prakash Singh Badal, Hon’ble Chief Minister, Punjab delivering the valedictory address

During three days, there were presentations by organic farmers, discussion of case studies and research work in the field of organic farming with special reference to bio-fertilizers and role of micro-organisms.

Shri Prakash Singh Badal, Chief Minister, State of Punjab delivered the valedictory address and promised to begin organic farming on selective basis in each of the districts of Punjab.

The video recording of the convention is available on You Tube (nittrchd.ac.in **Organic Farming for Sustainable Livelihood/Prospects of Organic Farming for Sustainable Agriculture**).

2.2 Curriculum Development

The institute continued to undertake curriculum development activities including the design and review of curricula for courses in engineering and non-engineering areas through a scientific approach which has been considerably internalised by the polytechnic system enabling them to take up similar projects by themselves with some guidance from National Institute of Technical Teachers Training and Research, Chandigarh. During the year **2014-15**, **02** curricula for the state of Punjab have been designed and **25** curricula for the state of Punjab have been revised by Curriculum Development Centre of the institute. The details of curricula designed and revised are given below:

CURRICULA DESIGNED	
02 Curriculum for the State of Punjab	
<ol style="list-style-type: none"> 1. Energy Conservation for ITIs 2. Energy Conservation for Diploma Level Programme 	
CURRICULA REVISED	
25 First Year Diploma Programmes for the State of Punjab	
<ol style="list-style-type: none"> 1. Architectural Assistantship 2. Automobile Engineering 3. Chemical Engineering 4. Civil Engineering 5. Computer Engineering 6. Electrical Engineering 7. Electronics and Communication Engineering 8. Electrical and Tele Communication Engineering 9. Fashion Design 10. Garment Technology 11. Leather Technology 12. Leather Technology (Footwear) 	<ol style="list-style-type: none"> 13. Information Technology 14. Library and Information Science 15. Medical Lab Technology 16. Modern Office Practice 17. Mechanical Engineering 18. Mechanical Engineering (RAC) 19. Plastic Technology 20. Production and Industrial Engineering 21. Textile Design 22. Textile Processing 23. Textile Technology (Knitting) 24. Textile Technology (Spinning) 25. Textile Technology (Weaving)

2.3 Instructional Material Development

During the year 2014-15, institute continued its efforts to promote development of instructional material, both print (text books, laboratory manuals, modules, readers etc.) and non-print (video programmes, CAI packages, etc).

The following instructional material was produced during the year under report:

Print Material

• Laboratory Manuals	:	13
• Modules	:	09
• Booklets/Readers	:	07
• Course Material for Training Programmes	:	202

Non Print Material

• Educational Video Films	:	77
• Lecture based Video Films of 21 Induction Training Programmes and 28 Content-based Training Programmes through ICT	:	924
• E-content in Hindi for Electronics Subjects	:	18
• CAI Package	:	01
• Capsules of Video Films for Gyan Darshan	:	274

The information regarding the instructional material developed has been disseminated to the technical institutions of the region and outside to enable them to use the same. **The details are enclosed at Annexure- I.**

2.4 Research and Development

Research and development activities in technology and technical education form an important aspect of the institute's programmes. The following research and development projects were completed during 2014-15:

1. Knowledge Management Practices in Industries.
2. State-of-the-Art Entrepreneurship Development Practice and Strategies in Polytechnics and Engineering Colleges in North Indian States vis-a-vis in the Indian Economy.
3. Identifying New Concepts, Research and innovations in Entrepreneurship.
4. Student Feedback Regarding Library Resources and Services.
5. Teaching Effectiveness Scale
6. Faculty/Staff Development Policy for the State of Haryana and Training Needs of Faculty/Staff.

In addition to above, **07 Ph.D.** thesis and **111 ME** thesis were completed under the guidance of faculty of this institute.

The faculty of the institute have contributed research papers to the various journals, conventions, seminars and conferences. **169** papers of the institute faculty were published in the journals and **92** papers were presented by the faculty in various conferences and seminars. **The details are enclosed at Annexure- II.**

Research Publications/Papers



The institute publishes a '**Journal of Engineering and Technology Education**' which is referred by teachers and students of technical education and research. This helps the faculty and students of technical institutions from across the country to publish their views and research work in Engineering and Technology and Technical Education. The journal (published twice in a year, i.e. January-June and July-December) provides an interdisciplinary forum to teachers, students, officials/administrators of technical education system and working professionals in industries to discuss and debate the theories and applications of technical educational technologies in all sectors and levels of technical education.

2.5 Extension Services and Consultancy

Policy Planning and Service to Industry and Community

The Institute has continued to play a proactive role to influence the planning and development of technical education and also collaborated with institutions and organisations at national and international levels having similar objectives. The institute also provided consultancy services to government, public sector and other national and state level organisations, technical education system and industry in the area of engineering and technology, educational management, curriculum development, entrepreneurship development and rural development.

274 capsules of video programmes prepared by four NITTTRs were sent to EMPC, IGNOU, New Delhi for daily transmission of these programmes in TECH ED Vision on Gyan Darshan Programme Channel.

Implementation of Government of India Schemes

- **Community Development through Polytechnics**
- **Integrating Persons with Disabilities (PWDs) in the Mainstream of Technical and Vocational Education**

The department of Rural Development of the institute provides academic support to MHRD, Government of India and all DTEs in the region for effective implementation of two schemes of Government of India on (i) Community Development Through Polytechnics (CDTPs) in **155** polytechnics and (ii) Integrating Persons with Disabilities (PWDs) in the mainstream of Technical and Vocational Education in **15** polytechnics/institutions in Northern region. The department acts as an effective link between MHRD and polytechnics implementing these schemes.

Special job fair for placement of PWDs was also organised in collaboration with CII, Chandigarh, Sarthak Educational Trust, New Delhi, and Vocational Rehabilitation Centre, Ludhiana on 19 May, 2014 in which **57** persons with disabilities were selected by **09** companies. The department has operationalized Disability Information Line (DIL) for Punjab Telecom Circle. The DIL is a sponsored project of Ali Yavar Jung National Institute for the Hearing Handicapped (AYJHNIHH), Mumbai. This project is expected to continue during entire period of 12th Five-Year Plan.

Signing of Memorandum of Understanding

The institute signed **08** MoUs were signed with Vembsys Technovation (Pvt), Ltd., Gurgaon; Arya College of Engineering and Information Technology, Jaipur; Telecom Sector Council (TSSC) Delhi; Indian Institute of Technology (Banaras Hindu University), Varanasi; Bharatiya Vidya Mandir, Kolkata; Green Economy Initiatives Pvt., Ltd., Zirakpur, Punjab; Dr. Fixit Institute of Structural Protection and Rehabilitation, Mumbai and Desh Bhagat University, Mandi Gobindgarh. The major objective of signing these MoUs is to:

- Support each others' endeavour in delivery of academic programmes and research activities.
- Exchange of scientific and technical information
- Joint supervision of Postgraduate and Ph.D. students
- Undertaking collaborative research activities through participation in Nationally and Internationally funded projects
- Jointly organize events such as seminars, workshops, conferences and training programs
- Training of students

Consultancy Projects

During the year 2014-15, the following consultancy projects were undertaken:

⇒ **Design and Testing Services to Industry (11 Projects in the area of Civil Engineering)**

Bituminous Mix Design, Evaluation of Pavements and overlay Design, Testing of Highway Materials, 3rd Party Quality control for Road works, Testing & Design of New Roads, Concrete Mix Design, Designed and Developed SCC for M₂₅ and M₃₀ Grades, Testing of Engineering Materials, Conduct of NET examination for the state of Haryana, HT-14 Haryana State Examination for the Post of Lecturer, Conduct of Examination for AE (Design) on STAAD Pro.

⇒ **Research Projects**

- Establishment of Cyber Security and Forensic Training for Technical Teachers Training sponsored by Ministry of Information Technology.
- Making Building Accessible to PWDs and making Websites Accessible to PWDs sponsored by Ministry of Social Justice and Empowerment
- Cutting Tool-Life Enhancement Using Nano-Composite sponsored by AICTE under RPS.

⇒ **Training Programmes for Students**

The institute organised **10** training programmes of 4-6 weeks and **03** programme of 6 months duration, through which **226** students of technical institutions and working professional from industry were trained in various areas of engineering and technology.

⇒ **Training Programmes under TEQIP**

Following training programmes were organised for the institutions covered under TEQIP-II :

- Advanced Pedagogy
- Enhancing Efficiency, Effectiveness and Motivation of Staff for Excellent Job Performance

⇒ **Other Projects**

- Conducted Written Test for Recruitment of Polytechnic Teachers in Haryana State,
- Conducted Written Test for Recruitment of Engineering College Teachers in Haryana State
- Documentary Films on Insects of Apples for the State of Himachal Pradesh
- 11 Films on Banking for State Bank of Patiala
- Training of Trainers through Distance Learning Technology for Ministry of Labour, ATI, Ludhiana (04 Programmes)

2.6 Academic Achievements of the Departments

Applied Science Department

During the year 2014-15, the department has conducted **10** short term courses for polytechnic teachers and **11** short term courses for engineering college teachers, which were attended by **129** and **139** teachers respectively. These programmes were conducted in the areas of Nanotechnology: Developments and Challenges, Lasers: Advances and Applications, Physics Lab Organization and Updating, Advance in OFC Technology, Laser Science and Technology, Nuclear Radiations and Their Applications, Fiber Optic Tests and Measurements, Nuclear Energy and Power Options, OFC System Design and Simulations, Operations Research and Mathematical Sciences, Newer Experiments in Applied Physics, Mathematical Programming and Operations Research, Nuclear Techniques and Instrumentation, Nanomaterials: Characterization and Applications, Physics Lab Organisation and Updating. Instructional material was also prepared on these topics and given to the participants. The department has conducted **01** training programme through ICT which was benefitted by **95** Participants. The department has also conducted **02** programme on Optical Fiber Splicing and Testing for Trainers from Telecom Sector Skill Council (TSSC), Delhi which were attended by **37** participants.

Centre for Physically Challenged Persons

The Centre organized **02** training programmes for the polytechnics teachers which were attended by **30** participants. The Centre organized an Annual Review Workshop for polytechnics implementing the PWD Scheme wherein **22** participants participated. These training programmes aimed at making polytechnic faculty, staff and NGOs working in the area of disability aware about the PWD Project. The participants were also provided inputs pertaining to barrier free environment, education, training and career opportunities for the PWDs. These STCs were conducted in the areas of:

- Advances in Education and Training of the Differently Abled Persons
- Rights of the Disabled

The Centre also produced instructional materials on these topics.

The department organized regional "4th National Abilympics" 3-5 November, 2014 jointly with National Abilympics Association of India, New Delhi wherein 578 participants (contestants 413, Escorts 99 and Officers 66)

The National Institute of Technical Teachers Training and Research, Chandigarh in collaboration with NAAI, Delhi organised 4th National Abilympics at its campus from 3-5 November, 2014. The event was inaugurated by Shri Thaawar Chand Gahlot, Hon'ble Union Minister of Social Justice and Empowerment, Govt. of India. Dr. K.K Talwar, Chairman BOG, NITTTTR Chandigarh, Dr. Uma Tuli Secretary General, NAAI, Delhi, Padmashri Kannubhai Tailor, Dr. MP Poonia,

Director, NITTTR Chandigarh and Prof. J.S Saini, Coordinator of the event were present during the Inaugural session. The MOSJE was represented by Smt. Stuti Kacker, IAS, Secretary to Govt. of India and Shri Awanish Kumar Awasthi, IAS, Joint Secretary to Govt. of India. 34 skill contests were organised.

The Centre organized a Job Fair on 19 May, 2014 for the Qualified Differently Abled Persons in which **57** persons with disabilities were selected by **09** companies.

Civil Engineering Department

During the year the 2014-15, the department conducted **21** short term training programmes for polytechnic teachers and **07** short term courses for engineering colleges teachers which were attended by **124** and **66** teachers respectively. The department also conducted **02** programmes through ICT which were attended by **390** teachers. In addition, **05** programmes of 2-3 days duration were also conducted in collaboration with industry which were attended by 154 teachers and working professionals from industry. The department conducted training programmes in the areas of Quality Control of Concrete, Water Resource Management, Application of Auto CAD in Engineering, Laboratory Management System and Internal Auditing as for IS/ISO/IEC-17025-2005, Environmental Pollution and Control, Structural Design using STAAD PRO, Project Planning and Management, Earthquake Retrofitting and Rehabilitation & Health Monitoring of Structures, Lab Practices in Environmental Engineering, Concrete Mix Design-New Directions, Geotechnical Investigations, Green Building-Concept and Practices, Latest Design Techniques in Design of Steel Structures, Construction and Maintenance of Roads, Mapping by Total Station, Design of RCC Structure, Modern Construction Materials and Practices, Laboratory Practices in Soil Engineering, Low cost Housing Techniques and Practices, Design using E-tab (Software), Laboratory Practices in Civil Engineering, Cleaner Production Technology

Advanced Technology for Concrete Repair, Auto CAD, Modern Building Materials and Sustainability in Construction, Quality and Technical Management of Laboratories, Structural Auditing and Rehabilitation; Transportation, Planning Design and Management in Urban Area, Building Maintenance, Water Proofing and General Structures, Project Planning and Management, STAAD PRO, Mapping by Total Station, Sustainable Development: Issues and Latest Developments, GIS and Remote Sensing - A Modern Tool in Mapping. Course materials were also prepared in these areas and were given to the participants of short term courses.

The department also conducted one National Conference on “**Sustainable Infrastructure Development from 26-27 February, 2015**” which was attended by **69** delegates from technical institutions and industry.

During the year under report, the department conducted **04** workshops in different areas, such as Structural Diagnosis and Condition Assessment of RCC Structures, Repair and Rehabilitation of Structures, Green Buildings- Construction and Practices and Sustainable Materials Constructions

Practices which were attended by **262** participants. The department faculty published **04** papers in the journals. The department also provided design and testing services to industry on consultancy basis. The department faculty attended training programmes at outside organisations.

Computer Science Department

During the year 2014-15, the department conducted **11** training programmes for polytechnic teachers and **13** programmes for faculty of Engineering Colleges, which were attended by **251** and **210** participants respectively. Some of the significant programmes included: Web Hacking and Security, Linux Administration, Cloud Computing, Network Security and Firewall, Web Based Content Development using Moodle, E-Commerce, Digital Image Processing using SciLab, Multimedia Content Generation, Computer Networking with CCNA, Php and My Sql, Scilab Programming, Wireless Networking, ASP.Net, VB.Net, Mobile Computing, Android Application Development, Open Source Technologies, Latex Programming, Web Content using Moodle, Sucuting Networks through Firewalls, VPN and IPS, Cyber Crime and Forensic Tools, Web Technology etc. The department also conducted **07** training programmes through ICT which were attended by **948** teachers.

The department also organised a National Conference on **Computing Technologies 30-31 March, 2015** at the institute which was attended by **63** delegates.

The department also conducted 06 training workshops which were attended by 287 participants..

In addition, the department imparted practical training to the students of engineering colleges as a part of their curriculum requirement. The department developed instructional material on various topics related to short term courses conducted by the department and also prepared a Laboratory Manual on Open Source Forensic Tools.

During the year under report, the department has also undertaken sponsored R & D Project on Establishment of Cyber Security and Forensic Tools sponsored by Ministry of Information Technology, New Delhi and Making Building Accessible to PWDs and making Websites Accessible to PWDs sponsored by Ministry of Social Justice and Empowerment.

The department faculty also guided many Ph.D and ME thesis and has published **06** papers in International/National journals and presented **09** papers in International/ National Seminars and Conferences. The department faculty also attended training programmes at outside institutions.

Dr. C Ramakrishna, Professor, Computer Science and Engineering Department received **Award for Session Best Paper and Session Chair**, for his paper "**CC Torus: A New Torus Topology for Interconnection Networks**", during International Conference on Advanced Computational Technologies and Creative Media (ICACTCM 2014) at Pattaya, Thailand held on 14-15 August, 2014.

Curriculum Development Centre

Curriculum Development Centre conducted **08** short term training programmes, out of which **07** programmes were organized for polytechnic faculty and **01** for faculty of engineering colleges. **228** faculty members from polytechnics and **56** faculty members from engineering colleges attended the training programmes. The Centre has also organized 6 training programmes through ICT in which 1422 faculty members from engineering colleges/polytechnics participated. Further, the Centre organized 6 training programmes for students and staff of engineering colleges and polytechnics, in which there were 1143 participants. The Centre also coordinated **04** training programmes on “Quality Management Standards and Quality Control Tools” in collaboration with Quality Council of India, New Delhi, in which were attended by **127** participants. The Centre revised the curricula of first year of **25** diploma programmes and designed curricula for **02** programmes for the state of Punjab. The Centre organized **36** curriculum development workshops in which **312** participants from polytechnics, industry and other academic institutions participated. During the year, the department faculty also developed 05 laboratory manuals.

The Centre organized a National Conference on “**Curriculum Innovations and Challenges in Technical Education**” on 24-25 March, 2015 which was attended by **100** delegates. The department faculty also attended training programme at outside organisations.

Education and Educational Management Department

Education and Educational Management Department offered M.Tech. Engineering Education Programme to the students who took admission in 2012 and 2013. During June-July 2014-15, three courses were offered namely : Management and Entrepreneurship(Batch 2012) Research Methodology and Principles of Management (Batch 2013) and during December – January, 2015 another four courses were offered namely : Project Planning and Management and Learning and Instructional Design(Batch 2012) and Entrepreneurship Development and Performance Evaluation(Batch 2013). At present only six students are pursuing M.Tech. Engineering Education Programme. Six students appeared in Viva-voce examination for their dissertation work and successfully completed their M.Tech. Engineering Education Programme.

The department organized **11** short term training programmes for the faculty of polytechnics and **08** programmes for the faculty of engineering colleges which were attended by **224** and **141** teachers respectively. The areas of training included: Induction Training Programme, Research Methodology, Evaluation and Setting Question Papers, Personality Development, Stress Management, Development of Soft Skills etc. In addition, the department organized one day programme on Preparing Students for Job Interviews for students through ICT in which **400** students participated. A panel discussion on the theme ‘Expectation of Industry from Technical Graduates’ was also organized as a part of the programme in which experts from industry namely : Advanced Technologies, Chandigarh, Simplex Infrastructures Ltd., New Delhi,

IES Kirloskar Genset Ltd., Jalandhar and President of Industry Association, Jammu participated. Four modules namely : Instructional Planning, Instructional Delivery, Student Evaluation and Communication Skills were prepared for the participants of the programmes related to Instructional Planning and Delivery offered through integration of Information and Communication Technologies(ICT). A research study on Perceptions of Students of Polytechnics in Haryana towards Evaluation System was undertaken by department faculty.

The faculty of the department delivered expert lectures in the Faculty Development Programmes organized by Quest Group of Institutions, Mohali; Chandigarh University, Gharuan; Dehradun Institute of Technology; PTU, Mohali; Academic Staff College, PU, Chandigarh; ICSSR, PU, Chandigarh; KCS College of Education, Jammu, Doaba Business School, Railmajra and IGCE, Abhipur. Three faculty members of the department underwent training in the area of Outcome Based Education, Softwares for Communication Skills Laboratory and Best Practices in Pedagogy and Research.

09 papers were published during 2014-15 in proceedings of national and international conferences and journals and **07** papers were presented in National and International Conference. Dr. P.K. Tulsi, Professor and Head and Dean, Research and Development was nominated for and awarded ISTE Best Teacher of Chapter Award 2014 during ISTE Section Faculty Convention 2014 organized by Swami Vivekanand Institute of Engineering and Technology, Banur.

Educational Television Centre

The Television Centre conducted **05** contact based short term training programmes for Polytechnics/Engineering Colleges and trained **76** teachers. **02** courses were conducted through ICT for polytechnics/engineering colleges and trained **523** teachers. The major programmes conducted during the year included E-Content Generation, ANN and Optimization Techniques and their Applications, Animation, Graphics Multimedia, Animation and Graphics and Artificial Neural Networks. The centre produced instructional material on the above mentioned areas. Centre has also provided practical training to the students of various engineering colleges in the area related to Antenna Design. Since September, 2012, ETV Centre is actively engaged in facilitating the conduct of Induction Training programmes and content updating training programmes through ICT.

ETV Centre produced **84** video films, **21** Induction Programmes through ICT, **28** Technical Courses and produced 924 video films. Video lectures uploaded to You Tube channel numbered **467** and video lectures uploaded to blogs numbered **505**. **66** video films are in the final stage of completion. **274** capsules of video film sent to EMPS, IGNOU, New Delhi during the 2014-15 as a part of the commitment to continue the transmission programme under Tech. Ed. Vision of Gyandarshan programme of Doordarshan Channel.

Department faculty has also published **07** papers in International/National Journals and presented **05** Research Papers in various National/ International Seminars and Conferences.

Electrical Engineering Department

During the year 2014-15, the department conducted **19** short term programmes for polytechnic teachers/engineering colleges, out of which **10** were in contact mode and **09** through ICT mode. The number of teachers trained through these programmes are 2015, out of which **124** were in contact mode and **1997** through ICT programmes. The programmes were conducted in the areas of MATLAB and its Applications, Automation in Industries, Energy Management, Virtual Instrumentation, Power Electronics, Control of Electrical Motors, Micro-controllers and its Applications, Programmable Logic Controllers and Computer Aided Circuit simulation etc. The department also developed **38** video films which have been uploaded through NCTEL and have good viewership also.

Under the guidance of faculty, **34** final and **33** pre thesis have been completed by M.E. students. The department faculty has published **42** papers in the National/International journals and presented **30** papers in National/International conferences. The department faculty had presented papers during IEEE/ASME sponsored International Conferences conducted at USA/Canada/London. Mrs. Ritula Thakur had worked as Visiting Scholar at Richard Russel Research Lab, USA during May-September, 2014. The department faculty also delivered key note addresses and expert talks in conferences and training programmes at various other institutions.

The Department organized an International Conference on Recent Advances and Trends in Electrical Engineering (RATEE 2014) during 23-24 December 2014. **70** delegates participated and 56 papers were presented.

Electronics and Communication Engineering Department

During the year 2014-15, the department conducted **10** training programmes for polytechnics and **06** programmes for faculty of engineering colleges in which **176** and **68** teachers participated respectively. The significant programmes conducted were in the areas of Mobile Communication, CDMA and GSM, MATLAB Programming, Computer Networks, Induction Training Programmes, Digital Signal Processing, Optical Fiber Communication, Introduction to Embedded System, Introduction to Wireless Sensor Networks, Embedded System Applications, GSM to 3G, TCP Based Computer Network, Wireless LANs, Communication Using MATLAB, FPGA Based Digital System Designing, Introduction to Digital System Design, 4G Technology, VLSI System Design Engineering. The department also conducted **05** Training programme through ICT mode for polytechnic and engineering college faculty. The programmes conducted were Computer Networks,

Optical Fiber Communication, VLSI, System Design, Embedded System and GSM to 3G. In these programme **1176** teachers participated from Engineering Colleges and **45** teachers participated from Polytechnic Colleges. The department faculty also prepared instructional material on these topics and gave to the participants of short term courses. During the year under report, the department has made **18** video programmes in Electronics for E-content generation in Hindi for the state of Uttar Pradesh.

In addition to ME Regular and Modular classes of various sessions/spells during the year, under the guidance of faculty, **33** ME thesis have been completed by the students. Four to six weeks practical training was provided to the B.Tech students of various engineering colleges. The department faculty has published **108** papers in the National/International journals and presented **02** papers in National/International conferences. The department faculty/staff have also attended various training programmes at outside organizations. **Dr. Kanika Sharma, Assistant Professor, Electronics and Communication Engineering Department** awarded **Best Session Paper Award**, for her paper “**Energy – Efficient Cluster – Based Multihop WSN: An Analytical Approach**”, in an International Conference on Innovative Engineering and Technologies (ICIET 2014) at Bangkok, during 28-29 December, 2014.

Electronics Service Centre

During the year 2014-15 the Electronics Service Centre conducted 04 programmes for polytechnics and 02 programmes for engineering colleges through ICT in which 20 participants from polytechnics and 331 participants from engineering colleges persons participated. They were provided training in the area of Repair and maintenance of UPS, Inverter and SMPS, Repair and maintenance of measuring instruments and power supplies, Repair and maintenance of Power Supplies and SMPS, Repair and maintenance of Power Supplies, Electronic Components, PCB layout Fabrication and testing, Repair and maintenance of power supplies and its components. The participants of the technical institutions were provided hands-on training through repair of equipment/instruments. The ESC conducted a master trainer programme under consultancy project on Handset Repair Engineer Level II for Telecom Sector Skill Council (TSSC) in which 10 participants from various states were provided hands-on training. As per specific demand of DMW Patiala, Indian Railways a training programme on Servicing and Trouble Shooting of Electronics Control of CNC machine was conducted in which 05 participants were provided hands-on training. This centre has also conducted industrial training programmes for 4-6 weeks and 06 months students under consultancy project on Embedded System Design, and Power Supply Fabrication and Testing in which 93 students from engineering colleges for 06 weeks and 09 students from engineering colleges for 06 months were provided hands-on training.

Entrepreneurship Development and Industrial Coordination Department

During 2014-15, the department conducted **08** short term courses for polytechnics and engineering colleges which were attended by **143** teachers. The department also trained **210** teachers from polytechnics and **950** teachers from engineering colleges through ICT Programmes. **02** Entrepreneurship Camps were organized at technical institutions in which **168** final year students participated. An In-country programme was also organized in collaboration with Colombo Plan Staff College (CPSC) Manila. A National Conference on Global Trends in Entrepreneurship was organized in which **54** delegates from various states of the country participated. A CPSC – NITTTR joint National Seminar on 'Issues, Challenges and Future Directions in Technical and Vocational Education and Training (TVET) Sector' was also organized in which **84** delegates from various states of the country participated.

The department prepared **02** Modules on Labour Market Information System and ISO 50001:2011 Energy Management Systems. In addition **09** video programmes were made by the department for the benefit of faculty from engineering colleges and polytechnics. **15** training programme booklets were prepared for the participants of different training programmes. Relevant lecture handouts were also prepared and given to ME regular and modular students.

The department completed **03** Research Studies and in addition **01** Research Study in the field of Energy Conservation Practices is in progress.

Internal Audits and Recertification of ISO 9001:2008 Certificate got conducted for effective maintenance of established Quality Management System (QMS) in NITTTR Chandigarh. All documents pertaining to this International Standards were updated as per recent changes made in its 2008 revised version. The major documents included : (1) Quality Manual; (ii) Quality Plans and Procedure Manual; (3) Work Instructions, and (4) Files, formats and records.

The department organized a series of training programmes under TEQIP-II in which teams of participants from different states like Andhra Pradesh, Punjab, UP and Haryana participated in both pedagogical as well as content matter updating training programmes. In addition, the faculty of the department assisted **06** engineering institutions in Andhra Pradesh, Kerala, Rajasthan and Madhya Pradesh in terms of mentoring as well as performance audit under TEQIP-II programme of NPIU, Govt. of India. Department of Science and Technology, Govt. of India sponsored **02** weeks faculty development programme on Entrepreneurship Development and 02 number of 3-days Entrepreneurship Awareness Camps were also organized in different polytechnics by the department.

Faculty of the department published **02** research paper and presented **03** papers in national and international conferences / seminars (and Chaired technical sessions). The faculty also delivered key-note addresses and acted as panelists in conferences and seminars.

Library

The library provides computerized services and internet facilities to its users. The library has switched over to Liberty – a web based library management system. Now the library catalogue can be accessed over the institute intranet and soon it will be available through the Internet. It subscribes to **04** e-resources (ASME, ASCE, IEL, Springer) and **40** print journals/periodicals. The library has over **37987** volumes of technical and educational books, **4051** Bound Journals and **10017** Indian Standards. The library imparts extension services to the polytechnics and engineering colleges in setting up and developing their libraries. Apart from providing services to faculty, staff and students of the institute, the library offers special membership and corporate membership facilities to the persons and institutions having academic and professional links with the institute. As a part of expansion programme, a separate e-resource section of the library has been set up which provides internet facilities, access to e-journals and facilities for using CDs/DVDs etc. The library has also conducted **04** training programmes which were attended by **78** teachers of library science/ librarians of polytechnics and engineering colleges.

Mechanical Engineering Department

The department conducted **14** short term courses for faculty of polytechnics and **07** short term courses for engineering colleges, in which **219** teachers were trained in various areas of mechanical engineering. Department also conducted training program on “Industrial Automation and Robotics, Computer Integrated Manufacturing, Auto CAD, IC Engines, Advanced Manufacturing Methods and Recent Trends in Automobile Engineering through ICT, in which were attended by **687** participants at different centres. **01** Ph.D and **14** M.E. thesis were completed under the guidance of department faculty. **11** papers in journals and **06** papers in conference proceedings were published by the faculty and students of the department. AICTE sponsored project “Cutting Tool Life Enhancement by Nano-Composite Coating” under Research Promotion Scheme is under progress. Three faculty member of the department presented papers in International Conferences held in Canada and Japan.

Media and Continuing Education Centre

Media Centre conducted **07** programmes for the faculty of Engineering Colleges and Polytechnics of northern region states. Out of these, and trained **149** participants from Polytechnics and **84** from Engineering Colleges The department also conducted and coordinated one short term course under TEQIP-II at MNIT, Jaipur for non-teaching Staff of PEC University of Technology and NITTTR, Chandigarh. The department prepared three instructional booklets. The department is providing guidance to the state of Haryana for preparing **25** polytechnics for NBA accreditation. The department faculty has presented one paper in International Conference in USA and also published a paper in the International Journal.

Rural Development Department

During the year 2014-15, the department has conducted **06** training programmes exclusively for polytechnics and **01** programmes both for engineering colleges and Polytechnic teachers. **147** polytechnic teachers and **62** engineering college teachers participated in **07** Programmes. The department conducted **03** ICT based training programmes on NSQF, Community Colleges and Skill Development Schemes; Renewable Energy Based Technologies and Climate Change, Disaster Management and Sustainable Development for Engineering Colleges and Polytechnics in which **445** teachers' participated, **11** workshops with respect to implementation of the Scheme of Community Development through Polytechnics were organized for different states in the northern region in which **539** participants participated.

The training programmes were conducted in areas of: Appropriate Technologies and their Dissemination; Alternate Energy Sources – Challenges and Opportunities; Micro-Enterprise Promotion in Rural India; Integrated Water Resource Management and Total Sanitation Campaign; Capacity Building and Empowerment of Marginalized and Rural Women; NSQF, Community Colleges and Skill Development Schemes; Renewable Energy Based Technologies; Climate Change, Disaster Management and Sustainable Development. The department also compiled study materials on the above mentioned topics.

Three day National Convention on “**Organic Farming**” was organized by NITTTR Chandigarh from 28th February to 2nd March 2015 in association with NGOs namely Organic Farming Association of India, Kheti Virasat Mission and ASHA. The multiple activities under this convention were bio-diversity seeds festival, organic food preparation, urban kitchen gardening workshop and farmers conference. The convention was inaugurated by Shri Manohar Lal Khattar, Hon'ble Chief Minister, Haryana. Dr. M P Poonia, Director of the institute shared his experience of modern farming being practiced in his village in Rajasthan and he stressed on strategies for creating pollution free agriculture, groundwater and air, so that quality of life of villages in general and cities in particular may be improved. Shri Manohar Lal Khattar, Chief Minister, Haryana discussed the ill effects of modern farming and announced to convert about 10% land under organic farming cultivation. Ms. Maneka Gandhi, Hon'ble Minister, Women and Child Development, Govt. of India also visited the bio-diversity festival on 28th February 2015. There was a live telecast of this three day event through **11** remote centres in the country. About **1000** farmers, students and teachers got connected through above remote centres.

Information Management and Coordination Department

During the year under report, the department prepared annual report of the institute for the year 2014-15 and submitted to MHRD, Government of India for their perusal and placing in the Parliament. The other major activities of the department during 2014-15 was preparation of Operational Plan of the institute depicting the annual calendar of Training Programmes for

Faculty and Technical Staff of Engineering Colleges and Polytechnics, Research and Development, Instructional Material Development, Curriculum Development, Extension Services and Consultancy activities for the year 2015-16 after consolidating the needs of various states of the Northern region through conduct of annual workshops held in each state. The department published **04** volumes of quarterly newsletter of the institute and is also in the process of developing Management Information System (MIS) of the institute in collaboration with Computer Science Department of the institute. The department also organised **03** training programmes in the areas of Pharmacy, Medical Lab Technology and Textile Design which were attended by **60** teachers.

Instructional Resources Marketing Unit

Over the years, the institute faculty has produced a good amount of print and non-print instructional resources like books, laboratory manuals, workbooks, data books, video films, slides, charts, trainer models, CAI packages, software etc. With a view to popularising the use of these instructional resources, IRMU was established in 1995 to promote and undertake dissemination and distribution (sale) of instruction resources developed by the institute to users viz. technical institutions in general and polytechnics in particular. During the year under report, IRMU has created awareness among teachers about the development and use of different learning resources and teaching aids for instruction. During the year 2013-14, IRMU has supplied various learning resources worth ₹ 98,430/- to its clients.

3.0 INSTITUTIONAL INFRASTRUCTURE

3.1 Land and Constructed Space

The Institute's main campus is located in the educational complex in Sector 26 on a plot of about **16.94 acres (6.85 hectares)** of land. The buildings in the main campus include:

- **Homi Bhabha Academic Block** housing the departments of Applied Science, Civil Engineering, Electrical Engineering, Electronics Service Centre, Electronics and Communication Engineering, Mechanical Engineering and Rural Development.
- **Ramanujan Centre for Computer Science and Educational Television** housing the departments of Computer Science, Information Management and Coordination, Educational Television and Media Centre.
- **Sir Bose J C Academic and Administrative Block** housing the Director's Office, Administrative and Accounts Section, Institute's Library and the departments of Curriculum Development, Education and Educational Management and Entrepreneurship Development and Industrial Coordination.

- **Visvesvaraya Lecture Hall Complex** includes **08** numbers of Hi-tech Lecture Halls.
- **Chandrasekhar Hall, Amartya Hall and Tagore Hall** (hostel for men and women), **Raman Hall** (Post Graduate Students Hostel), and **Student Centre**.
- **Har Gobind Khorana Guest House**.
- **Faculty and Staff Residences**.

Besides the main campus in Sector 26, there are additional residential campuses in Sectors 29 and 42 with seventy six houses for residential accommodation for staff and faculty. The total built up area is **39325 sqm**. The institute also has a children park in Sector-29 campus and a gym-cum-meditation centre in Sector – 42 campus.

During 2014-15, the following renovation work carried out by Estate Department:

- Renovation of Auditorium.
- Fabrication of Green House for Development of Plants for Institute.
- Development of Parking Area behind Computer Science and P.G. Hostel.
- Renovation of Civil Engineering Laboratories.
- Renovation of Badminton Hall.

3.2 Equipment

Equipment worth ₹ **340.86 lakh** was purchased during the year 2014-15. The total value of equipment increased to ₹ **3298.00 as on 31.03.2015**. After providing necessary depreciation on the assets, the net value of the equipment remained at ₹ **1231.47 lakh** as on **31.03.2015**.

3.3 Furniture

Furniture worth ₹ **11.12 lakh** was purchased during the year 2014-15. The total value of furniture increased to ₹ **332.39 lakh**. After providing necessary depreciation under rules, the net value of furniture remained at ₹ **185.57 lakh** as on **31.3.2015**.

3.4 Expenditure

An expenditure amounting to ₹ 3052.96 lakh has been incurred during the financial year 2014-15 under various schemes as indicated below:

Sr. No.	Name of the Scheme	(Rupees in Lakh)
		Expenditure incurred
1.	Plan (Non-recurring) - Capital Assets	628.10
2.	Plan-General (Recurring)	364.02
3.	Non-Plan-(Recurring)	
	a) Salary - Part - A : 1173.63	
	b) Salary - Part - B : 518.69	2060.84
	c) Non-Salary components : 368.52	
	Total Expenditure	3052.96

3.5 Library

Sr. No.	Particulars	No. available as on 31.03.2015
1.	Number of Books	37987
2.	Number of ISI and IRC	10017
3.	Bound Journals	4051
4.	Print Journals	39
5.	e.journals	4 e-resources <ul style="list-style-type: none">• IEL• ASME• ASCE• SPRINGER

4.0 INSTITUTE STAFF DEVELOPMENT

Staff Development is extremely important for bringing about any qualitative change in the system. It, therefore, needs to be planned in a manner so as to provide for the growth of the individual in accordance with one's innate capabilities and interests, bearing in mind one's job requirements as it is at present and likely to be in the foreseeable future.

In this direction, the institute continued to promote the development of its faculty and staff so as to provide opportunities to upgrade their professional capabilities in terms of knowledge and skills. The activities under this aspect ranged from deputing faculty and staff for short term programmes organised by institutes of higher learning of the country and abroad and participation in various conferences and seminars. The institute also organised in-house training programmes for its own faculty/staff.

The details of training programmes attended by institute faculty/staff are given in Annexure III.

5.0 VISIT OF IMPORTANT PERSONS TO THE INSTITUTE DURING 2014-15

S. No.	Name and Address
1.	Shri Thaawar Chand Gehlot, Hon'ble Minister of Social Justice and Empowerment, Govt. of India
2.	Smt. Maneka Gandhi, Hon'ble Minister of Women and Child Development, GOI, New Delhi
3.	Shri Kaptan Singh Solanki, HE Governor of Haryana
4.	Shri Parkash Singh Badal, Hon'ble Chief Minister, Punjab, Chandigarh
5.	Shri Manohar Lal Khattar, Chief Minister, Haryana, Chandigarh
6.	Padmashri Dr. Uma Tuli, Secretary-General, National Abilympics Association of India and Founder and Managing Secretary, Amar Jyoti Charitable Trust, Delhi
7.	Ms. Stuti Kacker, IAS, Secretary, Department of Disability Affairs, Minister of Social Justice and Empowerment, Govt of India
8.	Shri Awanish Kumar Avasthi , IAS, Joint Secretary, Department of Disability Affairs, Minister of Social Justice and Empowerment, Govt of India
9.	Mrs. Rajwant Sandhu, IAS, Member CAT, Chandigarh and Former Chief Secretary, Govt. of HP
10.	Lt Gen (Dr.) SP Kochhar (Retd.) AVSM, Chief executive officer of Telecom Sector Skill Council
11.	Air Marshal S.G. Inamdar, President, National Abilympics Association of India, New Delhi
12.	Prof. KK Aggarwal, Chairman, BOG, MNIT, Jaipur
13.	Mrs. Poonam Sachdeva, Group Director, Skipper Electrical India Ltd., Gurgaon
14.	Shri Vinayak Trivedi, Global Head, Bentley Academic Services, Pune
15.	Shri Upkar Singh, Director Technical Education, U.T. Chandigarh
16.	Dr. Thanikachalam, Ex-Professor, NITTTR, Chennai
17.	Dr. VH Radhakrishnan, Professor, Curriculum Development, NITTTR, Bhopal
18.	Dr. Urmila Kar, Professor and Head, Curriculum Development Centre, NITTTR, Kolkata

6.0 AUDITED ACCOUNTS

The Audited Accounts of the Institute for the year 2014-15 duly certified by Accountant General's office are enclosed at **Annexure IV**.

INSTRUCTIONAL MATERIAL DEVELOPMENT

The following instructional material has been developed by the institute faculty during the year 2014-15 :

Sr. No.	Instructional Material Developed	Author(s) Name
PRINT MATERIAL		
Laboratory Manuals		
1.	Experiments with Lasers	BC Choudhary
2.	Practical Worksheets on Applied Physics	BC Choudhary
3.	Applied Chemistry-1	CDC Faculty
4.	Applied Physics-I	CDC Faculty
5.	Strength of Material	CDC Faculty
6.	Fluid Mechanics	PK Singla/SK Gupta
7.	Heat Transfer	PK Singla/SK Gupta
8.	Optical Fibre Communication	SBL Sachan
9.	Data Communication Network	OS Khanna
10.	Digital Signal Processing	Rajesh Mehra
11.	Embedded System Design	Kanika Sharma
12.	Wireless Mobile Communication	Garima Saini
13.	Open Source Forensic Tools	Maitreyee Dutta
Modules		
1.	Labour Market Information Systems	SK Dhameja
2.	ISO 50001:2011 Energy Management Systems (EnMS)	Amardev Singh
3.	Instructional Planning	Deptt Faculty
4.	Instructional Delivery	Deptt Faculty
5.	Student Evaluation	Deptt Faculty
6.	Communication Skills	Deptt Faculty
7.	Appearing in Job Interviews	PK Tulsi
8.	Seminar Method	SP Bedi
9.	Brain Storming Method	SP Bedi
Booklets / Readers		
1.	Latest Instructional Media Operation and Maintenance	Rakesh Wats

2.	e-Governance in Technical Education	Rakesh Wats
3.	Institutional Accreditation (NBA Guidelines) and Quality Management	Rakesh Wats
4.	Industrial Automation and Control	SS Dhami
5.	Green Buildings and Services	SK Sharma/ Himmi Gupta
6.	Structural Steel Sections and Products	Himmi Gupta
7.	Maintenance and Repair of Steel Structures	Himmi Gupta

In addition to above, instructional material for 202 short term training programmes were prepared by various departments and given to the participants in the form of CDs and booklets.

NON PRINT MATERIAL	
Video Films	
1.	Phonetics
2.	Renewable Energy Power Project
3.	Group Discussion
4.	Engineering Thermodynamics-A Simplified Approach "Real Gases"
5.	Engineering Thermodynamics-A Simplified Approach "Properties Of Steam"
6.	Engineering Thermodynamics-A Simplified Approach "Gas Vapour Mixer (Psychrometry)"
7.	Engineering Thermodynamics-A Simplified Approach (Lecture – 5)
8.	Engineering Thermodynamics-A Simplified Approach (Lecture – 6)
9.	Engineering Thermodynamics-A Simplified Approach (Lecture – 12)
10.	Patent Searching And Filing
11.	Carbon Intensity And Clear Energy Technology
12.	Embedded System Design - Part 1
13.	Written Communication(Basics)
14.	e-mail Writing
15.	Patent Prior Art Search Methodology
16.	Computer Programming
17.	Financial Frauds And Investigation
18.	Discovering e-mail Spam System Audit And Mobile Security
19.	Challenges and Opportunities in TVET with Special Reference to NSQF - A Case Study
20.	Faculty Initiatives for Research In Engineering (FIRE)
21.	Introduction to Sensors
22.	Quality in Technical Education - Part 1

23.	Quality in Technical Education- Part 2
24.	Disaster Mitigation
25.	National Mission on Climate Change
26.	Application of Remote Sensing and GIS for Disaster Management
27.	Role of Adventure Sports in Disaster Preparedness
28.	Engineering Thermodynamics-A Simplified Approach (Thermodynamics Relations)
29.	Engineering Thermodynamics-A Simplified Approach (Thermodynamic Cycles)
30.	Fire Fighting and Rescue Operation Equipment
31.	<ul style="list-style-type: none"> i) Models of Curriculum Design ii) Curriculum Development Process iii) Aspects Of Effective Curriculum iv) Curriculum Monitoring and Evaluation v) Instructional Strategies for Effective Teaching Learning(Innovations) vi) Task Analysis and Instructional Objective
32.	Retro Fitting Of Distressed Concrete Structures
33.	First Aid Training Programme
34.	Engineering Thermodynamics (Refrigeration Cycles)
35.	Engineering Thermodynamics (Vapour Power Cycles)
36.	Carbon Credits and Carbon Trading
37.	Chemical Hazards
38.	Qualities of Effective Teacher
39.	The Art of Communication
40.	Introduction to Fuzzy Controllers
41.	Genetic Algorithm for Turning of PID Controller
42.	Fluid Power Actuators
43.	Robot Kinematics
44.	Why And How to Audit (Internal and External) Part 1
45.	Embedded System Design – Part 2
46.	Why And How to Audit (Internal and External) Part 2
47.	Why And How to Audit (Internal and External) Part 3
48.	GPRS,EDGE And 3G Planning
49.	3G and Beyond
50.	Optical Source (Part 1)
51.	Optical Source (Part 2)
52.	Report Writing
53.	Appearing in Interviews

54.	Environment Impact Assessment in India
55.	Writing Skills
56.	Environmental Monitoring Assessment and Quality Control
57.	Role of Teachers in Improving Instruction Five films in Dec.,2014
58.	Water Pollution and Control (Part – 1)
59.	Water Pollution and Control (Part – 2)
60.	Agilent Technologies Part 1(modified)
61.	Agilent Technologies Part 2 (modified)
62.	Quality in Technical Education and Outcome Based Accreditation - Part 1
63.	Quality in Technical Education and Outcome Based Accreditation - Part 2
64.	Payload Based Network Intrusion Detection Using GSAD Model For HTTP Traffic On Web Services
65.	Addressing the Network IPv4
66.	Emergency Operation Center
67.	Introduction To Latest Automative Technology (CRDI)
68.	Challenges and Emerging Technology for CNG Vehicle
69.	Friction Reduction in IC Engines
70.	Advance MOSFET Devices and Beyond
71.	Linear Voltage Regulator
72.	A -View
73.	Writing Job Resume/Curriculum Vitae
74.	Art of Illusion
75.	Nanoscale VLSI Circuit Design: Timing Issues and Solutions
76.	Engine Management System
77.	Jaivik Kheti Kisanon Ke Liye Vardaan
924 Lecture Based Video Films produced for the following programmes offered through ICT	
1.	Induction Training Programme
2.	Instructional Planning and Delivery
3.	Instructional Delivery
4.	Communication Skills
5.	Student Evaluation
6.	Effective Curriculum Implementation
7.	Intellectual Property Rights
8.	Virtual Instrumentation

9.	Total Quality Management
10.	National Skills Qualification Framework (NSQF)
11.	Soft Computing Scilab
12.	Solid State control of Electric Drives
13.	Computer Networks
14.	Industrial Automation and Robotics
15.	Efficient Energy Management
16.	Renewable Energy Based Technology
17.	Disaster Management
18.	MATLAB and its Application
19.	Green Buildings- Construction and practices
20.	Optical Fiber Communication
21.	Open source Multimedia Tools
22.	VLSI System Design
23.	Climate Change, Disaster Management and Sustainable Development
24.	Automation in Industries
25.	IC Engines
26.	Microprocessor, Microcontroller and its Applications
27.	E Governance, Eco-preneurship and Green IT
28.	Power Electronics
29.	Sustainable Environment Management
30.	Circuit Simulation Using Multisim
31.	Recent Advances in Automobile Engineering
E-content in Hindi for Electronics Subjects	
A: Principles of Digital Electronics (04 Nos.)	
1.	Overview of Digital Electronics
2.	Number Systems
3.	Logic Family of Digital ICs-I
4.	Logic Family of Digital ICs -II
B: Electronics Devices and Circuits (06 Nos.)	
5.	Single Stage Amplifier
6.	h-Parameter- I
7.	h-Parameter-II
8.	Multistage Amplifiers
9.	Multi Vibrator-I
10.	Multi Vibrator-II

C: Electronics Instruments and Measurements (05 Nos.)		
11.	Measurements and its Characteristics	
12.	Signal Generator	
13.	Study Analog Multi Meters	
14.	Study of Multi-range Ammeters and Voltmeters	
15.	Error and Noises in Measurements	
D: Microprocessors and its Applications (03 Nos.)		
16.	Introduction to Microprocessor	
17.	Memory of Micro Computer	
18.	Microprocessor Stack- I	
CAI Package		
1.	Virtual Teaching Aid for Robot Remote Control Using Hand Gestures	SS Dhani

Annexure- II

A. PAPERS PUBLISHED BY THE INSTITUTE FACULTY

Sr. No.	Title of the Paper Published	Author(s) Name
	CIVIL ENGINEERING	
1.	Performance Studies of Densified Small Particles on Beam Column Joints Journal of Engineering & Technology Education Volume 8, No. 1 Page No. 20-28, NITTTTR, Chandigarh January-June, 2014.	SK Sharma et.al
2.	“Development of Fly Ash based Geopolymer behavior of Fly Cement”, Journal on Today’s Ideas-Tomorrow’s Technologies Referred Research Journal Volume-2, No.1, Chitkara University Page No. 31 June 2014.	SK Sharma et.al
3.	“Cost Analysis of Conventional Speed Breaker with Steel Grid - A Case Study”, Published in International Journal of Engineering Innovation and Research.	Hemant Sood et.al
	COMPUTER SCIENCE	
4.	Analyzing Cryptographic algorithms for secure cloud network”, International Journal of Advanced Studies in Computer Science and Engineering, vol. 3, issue 6, Impact factor 4.862, 2014.	Maitreyee Dutta et.al
5.	“Secure Cloud Network using Partial Homomorphic Algorithms”, International Journal of Advanced Research in Computer Science, vol. 5, No.5, ISSN: 0976-5697, 2014.	Maitreyee Dutta et.al
6.	“Block based Neural Network for Automatic Number Plate Recognition”, International Journal of Scientific and Research Publications, Vol 4, Issue 9,ISSN 2250-3153, September 2014.	Maitreyee Dutta et.al
7.	“Threshold based approach for image blind deconvolution”, International journal of Computer Applications, vol. 102, September, 2014.	Maitreyee Dutta et.al
8.	“Performance Analysis of High Efficiency Video Coding (HEVC) Relative to H.264 AVC” PISER (Progress in Science and Engineering Research) International Journal, ISSN 2347-6080 (E), vol. 02, Issue 05, September 2014.	Maitreyee Dutta et.al
9.	“Digital Image Steganography,” Journal of CSI Communications, pp. 23-26, June 2014.	C Ramakrishna et.al
	EDUCATIONAL TELEVISION CENTRE	
10.	“Feed Point Optimization of Fractal Antenna Using GRNN-GA Hybrid Algorithm, Advances in Intelligent Systems and Computing (Springer)” Vol. 236, pp. 25 - 30, 2014.	SS Pattnaik et.al
11.	“A Cross-Stitch Geometry Based Multiband Fractal Antennas, Microwave and Optical Technology Letters” vol. 56, No.3, pp. 667-671, 2014.	SS Pattnaik et.al

Sr. No.	Title of the Paper Published	Author(s) Name
12.	"Optimized Reconfigurable Electrically Small Planar Microstrip Patch Antenna Loaded With Metamaterial", International Journal of Emerging Technology and Advanced Engineering Vol. 4, Issue 8, 2014.	SS Pattnaik et.al
13.	"Metamaterial Loaded Frequency Tunable Electrically Small Planar Patch Antenna", Indian Journal of Science and Technology Vol 7(11), 1738–1743, (ISSN (Online) : 0974-5645, November 2014.	SS Pattnaik et.al
14.	"A Tunable Square Shaped Split Ring Resonator Using Micro Electro Mechanical (MEMS) Switch", International Journal of Applied Engineering Research, Vol. 9, No. 12 (2014), pp. 1917-1926, (ISSN 0973-4562) 2014.	SS Pattnaik et.al
15.	"Frequency Reconfigurable Metamaterial Inspired High Gain Antenna", International Journal of Enhanced Research in Science Technology and Engineering Vol.3, Issue 3, pp. 202-206, (ISSN 2319-7463) 2014.	SS Pattnaik et.al
16.	"A Tunable Metamaterial Design Using Microelectromechanical System (MEMS) Based Split Ring Resonator" (SRR) vol. 8(37), pp 1857-1861, 2013.	SS Pattnaik et.al
ELECTRONICS AND COMMUNICATION ENGINEERING		
17.	"Performance Analysis of Space time block coding for wireless system using SFT", International journal of Science and Research (IJSR) VOLUME 3 ISSUE 12, ISSN (Online) 2319-7064, December 2014.	SBL Sachan et.al
18.	"Spare Fourier Transform for Performance Enhancement on the Basis of MSE and PC", International Journal of Science and Research (IJSR) Volume 4, Issue 3, March, 2015.	SBL Sachan et.al
19.	"Design of hybrid PSO and SVM for Detection of Brain Neoplasm", International Journal of Engineering and Advance Technology, Volume-3, April 2014.	Rajesh Mehra et.al
20.	"Design and Performance Analysis of CMOS Full Adder with 14 Transistor", International Journal of Computer Technology and Applications, Volume-5, August 2014.	Rajesh Mehra et.al
21.	"Design and Analysis of IIR Filter using Pipelined MAC Algorithm", International Journal for Scientific Research and Development, Volume, -2 12014.	Rajesh Mehra et.al
22.	"Analysis of Different IIR Filter based on Implementation Cost Performance", International Journal of Engineering and Advance Technology, Volume-3, April 2014.	Rajesh Mehra et.al
23.	"Analysis of FPGA based Recursive Filter using Optimization Techniques for High Throughput", International Journal of Engineering and Advance Technology, Volume-3, April 2014.	Rajesh Mehra et.al
24.	"Design of Error-Tolerant CMOS Adder using Optimized Transistor Count", International Journal of Engineering and Advance Technology, Volume-3, April 2014.	Rajesh Mehra et.al

Sr. No.	Title of the Paper Published	Author(s) Name
25.	"True Single Phase Clocking Flip-Flop Design using Multi Threshold CMOS Technique", International Journal of Computer Applications, Volume-96, June 2014.	Rajesh Mehra et.al
26.	"True Single Phase Clocking based Flip-Flop Design using Different Foundaries", International Journal of Advances in Engineering and Technology, Volume-7, May 2014.	Rajesh Mehra et.al
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Sr. No.	Title of the Paper Presented/Accepted	Author(s) Name
	APPLIED SCIENCE	
1.	"Curriculum for Masses in Technical Programmes under National Skills Qualifications Framework" (NSQF), National Conference Curriculum Innovations and Challenges in Technical Education NITTTTR, Chandigarh, 24-25 March, 2015.	BC Choudhary
	CIVIL ENGINEERING	
2.	"Role of Speed Breakers in Controlling Accidents – A Case Study", 5 th International Joint Conference on Advances in Engineering and Technology.	Hemant Sood et.al

Sr. No.	Title of the Paper Presented/Accepted	Author(s) Name
	CURRICULUM DEVELOPMENT	
3.	"Causes and Remedial Measures for High Failure Rate in First Year of Diploma Programmes in Polytechnics – A Case Study of Haryana State", National Conference on Curriculum Innovations and Challenges in Technical Education, NITTTR, Chandigarh, 24-25 March, 2015	SK Gupta PK Singla AB Gupta
4.	"Training Programmes for Employees of Public Sector Banks – A Case Study", National Conference on Curriculum Innovations and Challenges in Technical Education, NITTTR, Chandigarh, 24-25 March, 2015	PK Singla
5.	"Changing Activity Profile of Mechanical Diploma Engineers", National Conference on Curriculum Innovations and Challenges in Technical Education, NITTTR, Chandigarh, 24-25 March, 2015	AB Gupta
6.	"Curriculum Implementation in Polytechnics of Uttarakhand – Status and New Initiatives", National Conference on Curriculum Innovations and Challenges in Technical Education, NITTTR, Chandigarh, 24-25 March, 2015.	AB Gupta
7.	"Model Curriculum for Diploma Course in Mechanical Engineering", National Conference on Curriculum Innovations and Challenges in Technical Education, NITTTR, Chandigarh, 24-25 March, 2015.	AB Gupta
8.	"Flexibility in Curriculum Offering", National Conference on Curriculum Innovations and Challenges in Technical Education, NITTTR, Chandigarh, 24-25 March, 2015.	AB Gupta
	COMPUTER SCIENCE	
9.	"A New Fast Approach for Skew Estimation using Moments and Wavelet Transform", proceedings of IPTA'14 (International Conference on Image Processing, Theory, Tools and Application), Paris, France, 14-17 October, 2014.	Maitreyee Dutta et.al
10.	Performance Evaluation of Task scheduling with priority and non-priority in cloud computing", published in 2014 IEEE International Conference on Computational Intelligence and Computing Research (2014 IEEE ICCIC), Park College of Engineering and Technology, Coimbatore, Tamilnadu, 18 - 20 December, 2014.	Maitreyee Dutta et.al
11.	"Evaluation Criteria of Stego System", Proceedings of 10th IRF International Conference, Bengaluru, India. ISBN 978-93-84209-56-8, 04 October, 2014.	Maitreyee Dutta et.al
12.	"Arbitration Based Distributed Group Mutual Exclusion Algorithm for Mobile Ad Hoc Networks," 3rd IEEE International Conference on Parallel, Distributed and Grid Computing, Jaypee University of Information Technology (JUIT), Wagnaghat, 11 -13 December, 2014.	C Ramakrishna et.al

Sr. No.	Title of the Paper Presented/Accepted	Author(s) Name
13.	"An Efficient Mobile Data Collector Based Data Aggregation Scheme for Wireless Sensor Networks," IEEE International Conference on Computational Intelligence & Communication Technology (CICT), ABES ENGINEERING COLLEGE Ghaziabad, 13 -14 Feb. 2015.	C Ramakrishna et.al
14.	"An Efficient Permission-Cum-Cluster Based Distributed Mutual Exclusion Algorithm for Mobile Adhoc Networks," 3 rd IEEE International Conference on Parallel, Distributed and Grid Computing, Jaypee University of Information Technology (JUIT), Wagnaghat, 11-13 December, 2014.	C Ramakrishna et.al
15.	"An Efficient Distributed Group Key Management Using Hierarchical Approach with Elliptic Curve Cryptography," IEEE International Conference on Computational Intelligence and Communication Technology (CICT), ABES Engineering College Ghaziabad, 13 -14 February, 2015.	C Ramakrishna et.al
16.	"Optimization of Topology Update Interval for k-edge Connected MANETs," 5 th IEEE International Conference on Advances in Computing and Communication Technologies (ACCT-2015), Rohtak, 21 -22 February, 2015.	C Ramakrishna et.al
17.	"A new hybrid virtual machine scheduling scheme for public cloud," 5 th IEEE International Conference on Advances in Computing and Communication Technologies (ACCT-2015), Rohtak, 21 -22 February, 2015.	C Ramakrishna et.al
18.	"A Cluster-based Multi-keyword Search on Outsourced Encrypted Cloud Data," 2 nd IEEE International Conference on Computing for Sustainable Global Development, Bharati Vidyapeeth, New Delhi, 11-13 March, 2015.	C Ramakrishna et.al
19.	"Secure Ranked Fuzzy Multi-Keyword Search over Outsourced Encrypted Cloud Data," 4 th IEEE International Conference on Computer and Communication Technology, MNNIT, Allahabad, 27-28 September 2014.	C Ramakrishna et.al
EDUCATIONAL TELEVISION CENTRE		
20.	"Wearable Microstrip Patch Antennas: A Review" Elsevier Proceedings of 3 rd International Conference on Recent Trends in Engineering and Technology (ICRTET'2014), pp.311-315, 28-30 March 2014.	SS Pattnaik et.al
21.	"Metamaterial Based Microstrip Patch Antennas: A Review", Elsevier Proceedings of 3 rd International Conference on Recent Trends in Engineering and Technology (ICRTET'2014), pp.403-407, 28-30 March 2014.	SS Pattnaik et.al
22.	"MSRR Loaded Microstrip Patch Antenna Array for 5.8 GHz Wi-MAX Applications", Proceedings of International Symposium on Antenna and Propagation, APSYM 2014, pp. 113-118, Cochin, Kerala, 17-19 December 2014,	SS Pattnaik et.al
23.	"Performance Enhancement of Microstrip Patch Antenna Array using SRR Loading Proceedings of Indian Antenna Week" 2014, Chandigarh. 26-30 May 2014.	SS Pattnaik et.al

Sr. No.	Title of the Paper Presented/Accepted	Author(s) Name
24.	"A Miniaturized Multiband Split Ring Fractal Patch Antenna, IEEE Indian Antenna Week (IAW-2014)", Chandigarh, India, pp. 1-3.B, 2014.	SS Pattnaik et.al
ELECTRONICS AND COMMUNICATION ENGINEERING		
25.	"Low Power CMOS SRAM Technologies", in National Conference on Emerging Trends in Engineering and Technology, Roorkee, India, March 2014.	Rajesh Mehra et.al
26.	"Design Simulation and Analysis of 5T-SRAM Cell using Different Foundaries", in National Conference on 'Advances in Electrical and Information Communication Technology, PSII College of Engineering, Kanpur, 12-13 April, 2014.	Rajesh Mehra et.al
27.	"Design Analysis of XOR Gates using CMOS and Pass Transistor Logic", in National Conference on 'Advances in Electrical and Information Communication Technology', PSIT College of Engineering, Kanpur, 12-13 April, 2014.	Rajesh Mehra et.al
28.	"Different size reduction techniques of PIGA antenna: A review", International conference on Recent Trends in Electronics, Data Communication and Computing, Volume -1, Spl. Issue – 2,, pp (s): 126-128, 2014.	Garima Saini et.al
29.	"Analysis of Field Variation on Threshold Voltage and Drain Current of NMOS using TCAD", in IEEE International Conference on Advanced Communication Control and Computing Technologies, pp 488-491, Ramanthapuram, 08-10 May, 2014.	Rajesh Mehra et.al
30.	"MOSFET Sub-threshold Current Reduction by Varying Substrate Doping", IEEE International Conference on Advanced Communication Control and Computing Technologies, pp 551-554, Ramanthapuram, 08-10 May, 2014.	Rajesh Mehra et.al
31.	"Effects of Substrate Variation on NMOS: Simulation using TCAD", in International Multi Track Conference on Science, Engineering and Technical Innovations, CTIEMT, Jalandhar, 03-04 June, 2014.	Rajesh Mehra et.al
32.	"Stacked Dual Oxide Gate Structure MOSFET: Characteristics and Simulation", in International Multi Track Conference on Science, Engineering and Technical Innovations, CTIEMT, Jalandhar, 03-04 June, 2014.	Rajesh Mehra et.al
33.	"Power Spectrum Estimation for Band Pass Filter using Non Parametric Methods", International Conference on Research in Electrical and Mechanical Engineering, Dehradun, July 2014.	Rajesh Mehra et.al
34.	"Performance Analysis of Low Pass FIR Filter with Variation of Zero Value Coefficients", in International Conference on Research in Electrical, Electronics and Mechanical Engineering, Dehradun, July 2014.	Rajesh Mehra et.al
35.	"Design and Performance Analysis of IIR Filters for RF Applications", in International Conference on Research in Electrical, Electronics and Mechanical Engineering, Dehradun, July, 2014.	Rajesh Mehra et.al

Sr. No.	Title of the Paper Published	Author(s) Name
36.	"Re-Configurable Optimized Area CTC Codec for Wireless Applications", in International Conference on Advances in Computing, Communication and Informatics pp 2549-2553, New Delhi, 24-27 September, 2014.	Rajesh Mehra et.al
37.	"Comparative Analysis of CMOS Comparator using BSIM 4 Model", in National Student Conference on Advances in Electrical and Information Communication Technology PSIT College of Engineering, Kanpur, 12-13 April, 2014.	Rajesh Mehra et.al
38.	"Area- Efficient Layout Design of Comparator using Cascaded Technique", in International Conference on Advances in Computer Engineering and Applications, Ghaziabad, JMSEC, Ghaziabad, 19-20 March, 2015.	Rajesh Mehra et.al
39.	"Layout Development of Area Efficient Lo-Skewed Even Parity Generator", in International Conference on Advances in Computer Engineering and Applications, Ghaziabad, JMSEC, Ghaziabad, 19-20 March, 2015.	Rajesh Mehra et.al
40.	"LMMSE Based Channel Estimator for MIMO Systems", Accepted in International Conference on Emerging Trends in Computer Science, Communication and Information Technology, Nanded, Maharashtra, 9-11 February, 2015.	Garima Saini et.al
EDUCATION AND EDUCATIONAL MANAGEMENT		
41.	"Initiatives Undertaken in India to Improve the Quality of Technical Education in India", International-cum-Workshop Seminar on Capacity Building for Excellence in Higher Education, Thailand, 22-26 June, 2014.	PK Tulsi MP Poonia
42.	"Expectations of Industry from Technical Graduates: Implications for Curriculum and Instructional Processes", International Conference on Transformation in Engineering Education, Bengaluru, 06-08 January, 2015.	PK Tulsi MP Poonia
43.	"Building Excellence in Engineering Education in India", International Conference on IEEE EDUCON 2015 Global Engineering Education Tallinn, Estonia, 17-20 March, 2015.	PK Tulsi MP Poonia
44.	"Evaluation and Certification of Skills in Higher Education", Global Summit on Industry-Academia Interface for meeting National Goals of Skill in India, Make in India-Digital India organized by Baba Farid Group of Institutions, Bathinda, 31 January, 2015.	PK Tulsi MP Poonia
45.	"Relevance of Applied Physics Curriculum in Engineering Colleges of Himachal Pradesh: A Perception Study", National Conference on Interdisciplinary Approaches for Engineering Innovations and Scientific Developments – Impact on Society and Environment-2014, 12-13 September, 2014.	SP Bedi et.al

Sr. No.	Title of the Paper Published	Author(s) Name
46.	"Comparative Analysis of Curricula of Life Skills offered in Engineering Diploma Courses in South Indian States", National Conference on Foresight and Technology Futures (NCFTF-2015) 1-8; Department of Futures Studies, University of Kerala, Palayam, 19-20, March 2015.	SP Bedi et.al
47.	"Achieving Excellence through Generation and Sustenance of Quality Culture in School Education", Regional Summit on Quality in Education, CII and Institute of Quality, CII, Chandigarh, 12 November, 2014.	Sunil Dutt
ELECTRICAL ENGINEERING		
48.	"Modelling and Simulation of Hybrid Power Flow Controller Implemented on SMIB System", 46th North American Power Symposium (IEEE Sponsored) held at Washington State University, Pullman, during 7-9 September 2014.	Lini Mathew et.al
49.	"A Low Cost Non-Destructive Grain Moisture Embedded System for Food Safety and Quality", 17th International Conference on Food Process Engineering, London, United Kingdom, February, 16-17, 2015.	Ritula Thakur et.al
50.	"Climate Change and Changing Dimensions of Renewable Energy Policy in India", A National Conference on Recent Advancements in Power System Engineering, VISION-2020 (RAPSE-2014), KITE, Jaipur, 7th April, 2014.	Ritula Thakur et.al
51.	"A Novel design for Moisture Determination in Peanuts", International conference on Recent Advances and Trends in Electrical Engineering (RATEE 2014), NITTTR, Chandigarh, 23-24 December, 2014.	Ritula Thakur et.al
52.	"On-line Monitoring of Water Quality Index Using LabVIEW – A Review", International conference on Recent Advances and Trends in Electrical Engineering (RATEE 2014), NITTTR, Chandigarh, 23-24 December, 2014.	S Chatterji et.al
53.	"Designing of RF and Hypersepectral Imaging based On-line Food Quality Analyser", International conference on Recent Advances and Trends in Electrical Engineering (RATEE 2014), NITTTR, Chandigarh, 23-24 December, 2014.	Ritula Thakur et.al
54.	"Arsenic Determination Techniques for Potable Water: A Review", International conference on Recent Advances and Trends in Electrical Engineering (RATEE 2014), NITTTR, Chandigarh, 23-24 December, 2014.	S Chatterji et.al
55.	"Analysis and review of possible e-pill with wireless communication, finding applications in biomedical", International conference on Recent Advances and Trends in Electrical Engineering (RATEE 2014), NITTTR, Chandigarh, 23-24 December, 2014.	Ritula Thakur et.al

Sr. No.	Title of the Paper Published	Author(s) Name
56.	"An Integrated Renewable Energy System Field Testing and Process Simulation for Energy Flexibility", National Conference on Recent Advancement in Power System Engineering, VISION-2020, Kautilya Institute of Technology and Engineering, Jaipur in association with the Institution of Engineers. 07 April 2014	Shimi S L
57.	"An Analytical Review of Harmonic Elimination in a MPPT Based Solar Powered Cascade Multilevel Inverter", National Conference on Recent Advances in Power Systems (RAPS – 2014) PEC University of Technology (Deemed University) Chandigarh, 28 June, 2014.	Shimi S L et.al
58.	"Design and Real Time Simulation of Artificial Intelligent based MPP Tracker for Photo- Voltaic System –ASME 2014", Conference on International Mechanical Engineering Congress and Exposition, Mountreal, Canada, 14-20 November, 2014.	Shimi S L et.al
59.	"Solar Powered Multi-Level Inverter With Reduced Number of Switches", National Conference on Advancements and Futuristic Trends in Mechanical Engineering , Under TEQIP-II, PEC University of Technology, Chandigarh, 17-18 October, 2014.	Shimi S L et.al
60.	"Design and Simulation of Three-Phase Multilevel Inverter with Low Load Harmonics Contents and Less Switches", Proceeding of International Conference on Recent Advances and Trends in Electrical Engineering, (RATEE 2014) at NITTTR, Chandigarh. 23-24 December, 2014.	Shimi S L et.al
61.	"Approximate Estimation of PV Performance Implemented on Matlab/Simulink", Proceeding of International Conference on Recent Advances and Trends in Electrical Engineering, (RATEE 2014) at NITTTR, Chandigarh, 23-24 December, 2014.	Shimi S L et.al
62.	"Design and Implementation of UPQC Model to Solve Power Quality Problems", Proceedings of the National Conference on Recent Advances in Power Systems (RAPS-14), at PEC University of Technology, Chandigarh, pages 13-23, June, 2014.	Lini Mathew et.al
63.	"Design and Development of MSP430 based Low Power Surface EMG Data Acquisition System", IEEE 4th International Conference on Advances in Engineering and Technology (ICAET 2014), held at EGS Pillay Engineering College, Nagapattinam, Tamil Nadu, India, May 2014.	S Chatterji et.al
64.	"A Novel Fuzzy MPPT Controller for Extracting Maximum Energy from Solar Panel", International Conference on Recent Advances & Trends in Electrical Engineering (RATEE 2014) at NITTTR, Chandigarh, December, 2014.	S Chatterji et.al
65.	"Virtual Laboratory for Tests on Transformer", International Conference on Recent Advances & Trends in Electrical Engineering (RATEE 2014) at NITTTR, Chandigarh, December, 2014.	Lini Mathew et.al
66.	"Design of Photo Voltaic Module with MATLAB/SIMULINK", International Conference on Recent Advances & Trends in Electrical Engineering (RATEE 2014) at NITTTR, Chandigarh, December, 2014.	Lini Mathew et.al

Sr. No.	Title of the Paper Published	Author(s) Name
67.	"Direct Torque Control of Induction Motor Simulation using Conventional Method and Space Vector Pulse Width Modulation", International Conference on Recent Advances & Trends in Electrical Engineering (RATEE 2014) at NITTTR, Chandigarh, December, 2014.	S Chatterji
68.	"Design and Implementation of UPQC Model to solve Power Quality Problems", International Conference on Recent Advances & Trends in Electrical Engineering (RATEE 2014) at NITTTR, Chandigarh, December, 2014.	Lini Mathew et.al
69.	"Design and Analysis of Grid Tied PV system without Batteries: In Context to India", International Conference on Recent Advances & Trends in Electrical Engineering (RATEE 2014) at NITTTR, Chandigarh, December, 2014.	Lini Mathew et.al
70.	"Design and Development of Power Quality Monitoring and Analysis System based on LabVIEW", International Conference on Recent Advances & Trends in Electrical Engineering (RATEE 2014) at NITTTR, Chandigarh, December, 2014.	Lini Mathew et.al
71.	"A Survey of Various Maximum Power Point Tracking Techniques used in Solar Photo Voltaic System", International Conference on Recent Advances & Trends in Electrical Engineering (RATEE 2014) at NITTTR, Chandigarh, December, 2014.	S Chatterji et.al
72.	"A Review of EEG and EMG based Control Approaches in Exoskeleton Robotic Arm", International Conference on Recent Advances & Trends in Electrical Engineering (RATEE 2014) at NITTTR, Chandigarh, December, 2014.	S Chatterji et.al
73.	"Fractional Order based PID control of Shell and Tube Heat Exchanger System", International Conference on Recent Advances & Trends in Electrical Engineering (RATEE 2014) at NITTTR, Chandigarh, December, 2014.	Lini Mathew et.al
74.	"Modelling and Control of Micro Grid under Grid connected and Disconnected Mode", International Conference on Recent Advances & Trends in Electrical Engineering RATEE 2014) at NITTTR, Chandigarh, December, 2014.	S Chatterji et.al
75.	"Challenges, Simulation and Analysis of Integrated Distributed Renewable Energy Sources", International Conference on Recent Advances & Trends in Electrical Engineering (RATEE 2014) at NITTTR, Chandigarh, December, 2014.	Lini Mathew et.al
76.	"A Fuzzy Relation based Fault Diagnosis System for an Alternator", International Conference on Recent Advances & Trends in Electrical Engineering (RATEE 2014) at NITTTR, Chandigarh, December, 2014.	Lini Mathew et.al
ENTREPRENEURSHIP DEVELOPMENT AND INDUSTRIAL COORDINATION		
77.	"Teaching Business Entrepreneurship in Technical Education using Blue Ocean Strategy", European Academic Conference on Business Tourism and Hospitality at Ryerson University, Toronto, Canada, 15 -17 October, 2014.	SK Dhameja

Sr. No.	Title of the Paper Presented/Accepted	Author(s) Name
78.	"Entrepreneurial Performance and Problems of Women in Business in the State of Uttar Pradesh in India", International Conference on Business and Economic Development, New York, USA, 30-31 March, 2015.	SK Dhameja
79.	"Ecopreneurship – The Way Forward", National Conference on Global Trends in Entrepreneurship NITTTTR, Chandigarh, 27-28 November, 2014.	Amardev Singh
MECHANICAL ENGINEERING		
80.	"Die Sinking Electrical Discharge Machine with PLC Controller for Future Manufacturing Systems", International Journal of Arts and Sciences Conference held at Boston, USA from 26-30 May, 2014.	SS Banwait
81.	"Minimization of Surface Roughness and Tool Vibration in CNC Milling Operation", National Conference on Advancements and Futuristic Trends in Mechanical Engineering (AFTME-17-18 Oct 2014), PEC University of Technology, Chandigarh.	SS Dhami et.al
82.	"Study and Prediction of Surface Finish of External Cylindrical Surfaces of Titanium Alloys By Electro Chemical Honing (ECH) Process", International Conference on PFAM -14, IITR, Roorkee, 05-07 Dec,2014.	PS Rao et.al
83.	"Effect of Electrolyte Composition on Surface Finish of Titanium Alloys By Electro Chemical Honing (ECH) Process", International conference on ICNDME-14, MMU, Mullana (Ambala) 21-22 Dec, 2014.	PS Rao et.al
84.	"A Low Cost Approach for Gesture-Based Machine Control", National Conference on Latest Developments in Materials, Manufacturing and Quality Control, Giani Zail Singh Punjab Technical University Campus, Bathinda, February 19 – 20, 2015	SS Dhami et.al
85.	"Precision Finishing of External Cylindrical Surfaces of EN8 Steel by Electro chemical Honing (ECH) Process using OFAT Technique", International Conference on Materials Processing and Characterization ICMPC-15, GRIET, Hyderabad 14-15 Mar, 2015.	PS Rao et.al
MEDIA AND CONTINUING EDUCATION CENTRE		
86.	"Digitization of Higher Education for Exponential Economic Growth in India", W.E.I International Conference, New Orleans, U.S.A.19-22 October, 2014.	Rakesh Wats
RURAL DEVELOPMENT		
87.	"Vocational Training and Skill Development: Issues and Challenges INDO –Canadian" Workshop on Skill Development, SD College, Chandigarh, 11 October, 2014.	JS Saini
88.	"Climate Change, Disaster Management and Sustainable Development in India", ABES Engineering College, Ghaziabad, 5-6 May, 2014.	UN Roy

Sr. No.	Title of the Paper Presented/Accepted	Author(s) Name
89.	"Prospects of Organic Farming in India", ABES Engineering College, Ghaziabad, 5-6 May, 2014.	UN Roy
90.	"Impact of Climate Change and its Mitigation at Grassroots Level in India", SGV University, Jaipur, 26-27 September, 2014.	UN Roy
91.	"Technologies for representing graphics for Visually Challenged, International Conference on Recent Advances and Trends in Electrical Engineering (RATEE 2014), NITTTR, Chandigarh, 23-24 December, 2014.	Poonam Syal et.al
92.	"Social Entrepreneurship and Inclusive Growth", National Conference on Global Trends in Entrepreneurship, NITTTR, Chandigarh 27-28 Nov, 2014.	Poonam Syal

Annexure – III

TRAINING PROGRAMMES ATTENDED BY INSTITUTE FACULTY/ STAFF

Sr. No.	Area and Place of Training	Period	Attended by Shri/Ms.
1.	Software Training in Communication Skills Laboratory from Visional Info Solutions (P) Ltd., New Delhi, NITTTR Chandigarh	21-22 April, 2014	Sunil Dutt
2.	Workshop on “Recent Trends and Challenges in Civil Engineering” Under TEQIP-II, PEC Chandigarh	25 April, 2014	Hemant Sood
3.	IEEE Indian Antenna Week, Chandigarh	26-30 May, 2015	Garima Saini
4.	Best Practices in Pedagogy and Research, MGSIPA, Chandigarh	02-10 June, 2014	TN Thukral
5.	“Management Capacity Enhancement for Administrators” at IIM, Lucknow, Noida Campus	09-13 June, 2014	SK Gupta
6.	Hindi Aashulippik Prashikshan Karyakram	21-22 July, 2014	Jagdish Chand
7.	Managerial Skills for Technical Teachers and Administrators, Ahmedabad, Extension Centre of NITTTR, Bhopal	28 July – 08 August, 2014	Poonam Syal Shimi S L
8.	Knowledge Management Practices and Applications at Ooty organized by National Productivity Council, New Delhi	04-08 August, 2014	PK Singla Hemant Sood
9.	Effectiveness and Motivation of Staff for Excellent Job Performance, MNIT, Jaipur	01-05 September, 2014	RK Malik Vinod Vashisth Yogendra Kaushal Surinder Singh Suresh Kumar Sharma Ramesh Kumar Hem Raj JP Tungal KS Rana Vijay Kumar Sharma Nasib Singh Sudhir Chopra

Sr. No.	Area and Place of Training	Period	Attended by Shri/Ms.
10.	Harnessing the Researcher to Promote Sustainable Innovation, IIT Roorkee	02-06 September, 2014	Amardev Singh
11.	Entrepreneurship Development sponsored by Department of Science and Technology (DST) and conducted by EDIC Department, NITTTR Chandigarh	15-26 September, 2014	PS Rao
12.	National Mission on Education Through Information and Communication Technology Programme at NITTTR, Chandigarh organized by NIT Kurukshetra	27 September, 2014	BS Pabla SS Banwait AB Gupta SS Dhami Poonam Syal S Jassal PS Rao Shimi SL
13.	National Seminar on "Recent Trends in VLSI and Embedded Systems, Jaipur National University, Jaipur	15-16 October, 2014	Rajesh Mehra
14.	Life Skills and Interpersonal Skills, MGSIPA, Sector-26, Chandigarh	14-16 October, 2014	SK Gupta
15.	Research Methodologies and Design of Experiments, MNIT Jaipur	27-31 October, 2014	Kanika Sharma
16.	Recent Trends in Instrumentation and Control Engineering, NIT Jalandhar	08-12 December, 2014	Kanika Sharma
17.	Industrial Automation and Mechatronics, IIT Delhi	08- 12 December, 2014	Ritula Thakur
18.	FDP in Entrepreneurship, EDII Ahmedabad	15-16 December, 2014	Amardev Singh
19.	Workshop on Outcome based Education, BMS college of Engineering, Bengaluru	06 January, 2015	PK Tulsi
20.	Training of Trainers for Accreditation, SKIT, Jaipur	23 March – 03 April, 2015	OS Khanna
IN-HOUSE TRAINING PROGRAMMES			
1.	Spectrometer	28-30 April 2014	All Faculty and Technical Staff of Mech. Engg. Department
2.	Structural Diagnosis and condition Assessment of RCC Structures	27-28 May, 2014	Himmi Gupta

Sr. No.	Area and Place of Training	Period	Attended by Shri/Ms.
3.	Training Programme on Structures with Steel Designing, Refurbishing, Retrofitting	08-09 August, 2014	Himmi Gupta
4.	19th Annual EDIC National Conference on Global Trends in Entrepreneurship	27-28 November, 2014	JS Saini Poonam Syal
5.	Conference on Emerging Green Technologies for Sustainable Future : EnviroTech 2014	03 December, 2014	Himmi Gupta
6.	International Workshop on Emerging Trends in Dynamics and Earthquake Engineering	20-21 December, 2014	Himmi Gupta
7.	International Conference on Recent Advances and Trends in Electrical Engineering, NITTTR, Chandigarh	23-24 December, 2014	Poonam Syal
8.	National Conference on Recent Advances and Trends in Electrical Engineering NITTTR, Chandigarh	23 –24 December, 2014	BS Pabla SS Banwait SS Dhami S Jassal PS Rao
9.	Management Development, NITTTR Chandigarh	29 December, 2014 - 02 January, 2015	Poonam Syal Himmi Gupta
10.	Electronic Fuel Injection System	20-22 January, 2015	All Faculty and Technical Staff of Mech. Engg. Department
11.	DSP and its application	02-06 February, 2015	Garima Saini
12.	Measurement of Uncertainty for Laboratories	6-8 February, 2015	Himmi Gupta
13.	VisSim Workshop – Model Based Design for Embedded Systems	11-12 February, 2015	Shimi S L
14.	National Seminar on Issues, Challenges and Future Directions in Technical and Vocational Education and Training (TVET) Sector, NITTTR, Chandigarh,	12 February, 2015	BS Pabla SS Banwait SS Dhami S Jassal PS Rao
15.	National Seminar on Issues, Challenges and further directions in Technical and Vocational Training, CPSC Manila, NITTTR, Chandigarh	12 February, 2015	Rajesh Mehra
16.	Blue Ocean Strategy for Technical and Vocational Education and Training	09-13 February, 2015	Rajesh Mehra Himmi Gupta

Sr. No.	Area and Place of Training	Period	Attended by Shri/Ms.
17.	Hand Set Repair, NITTTR, Chandigarh	23-28 February, 2015	AB Gupta
18.	National Convention on Organic Farming, NITTTR, Chandigarh,	28 February to 02 March, 2015	BS Pabla SS Banwait SS Dhami S Jassal PS Rao
19.	MATLAB Workshop on Introduction to Data Analysis and Parallel Computing with MATLAB, JW Marriott, Chandigarh	04 March, 2015	Shimi S L
20.	National Conference on Curriculum Innovations and Challenges in Technical Education, Chandigarh,	24 – 25 March, 2015	BS Pabla SS Banwait SS Dhami S Jassal PS Rao



भारतीय लेखा परीक्षा एवं लेखा विभाग
कार्यालय प्रधान निदेशक - लेखा परीक्षा (केन्द्रीय), चण्डीगढ़

Annexure-IV

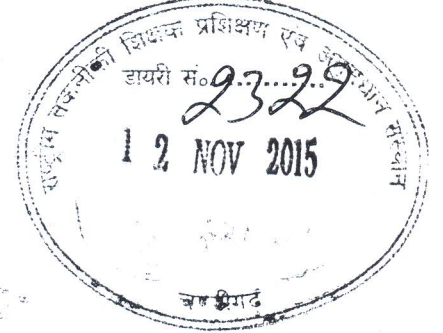
INDIAN AUDIT AND ACCOUNTS DEPARTMENT
OFFICE OF THE PRINCIPAL DIRECTOR OF AUDIT (CENTRAL),
CHANDIGARH - 160 017

S.O. Budget

12/11/15

क्रमांक / No. : PDA(c)/CE/SAR/2015-1421
दिनांक / Dated : 06/11/2015

Account
Section



To

The Secretary,
Department of Education,
Ministry of Human Resource Development,
Government of India,
New Delhi.

Seen

13/11/15

ACO

Subject: Separate Audit Report on the annual accounts of National Institute of Technical Teachers' Training and Research, Chandigarh for the year ended 31 March 2015.

Sir,

I enclose a copy of the Separate Audit Report on the annual accounts of National Institute of Technical Teachers' Training and Research, Chandigarh for the year ended 31 March 2015 to be placed before both the Houses of Parliament. The report may be kept confidential till its presentation in the Parliament.

Kindly send us five copies of the above report after its presentation.

Please acknowledge receipt of this letter.

Yours faithfully,

Encls: as above

Principal Director

Copy forwarded to Director, National Institute of Technical Teachers' Training and Research, Chandigarh alongwith Separate Audit Report for the year ended 31 March 2015 for information please.

Deputy Director

S. Budget

Separate Audit Report of the Comptroller & Auditor General of India on the Accounts of the National Institute of Technical Teachers' Training and Research, Chandigarh for the year ended 31 March 2015.

We have audited the Balance Sheet of National Institute of Technical Teachers' Training and Research, Chandigarh as at 31 March 2015, Income & Expenditure Account and Receipts and Payments Account for the year ended on that date under Section 20(1) of the Comptroller & Auditor General's (Duties, Powers & Conditions of Service) Act, 1971. The audit has been re-entrusted for a period of five years from 2013-14 to 2017-18. These financial statements are the responsibility of the Institute's management. Our responsibility is to express an opinion on these financial statements based on our audit.

2. This Separate Audit Report contains the comments of the Comptroller & Auditor General of India (CAG) on the accounting treatment only with regard to classification, conformity with the best accounting practices, accounting standards and disclosure norms, etc. Audit observations on financial transactions with regard to compliance with the Law, Rules & Regulations (Propriety and Regularity) and efficiency-cum-performance aspects, etc., if any, are reported through Inspection Reports/ CAG's Audit Reports separately.

3. We have conducted our audit in accordance with auditing standards generally accepted in India. These standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatements. An audit includes examining, on a test basis, evidences supporting the amounts and disclosure in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of financial statements. We believe that our audit provides a reasonable basis for our opinion.

4. Based on our audit, we report that:

- i) We have obtained all the information and explanations, which to the best of our knowledge and belief were necessary for the purpose of our audit except position stated in comment number C.4.;
- ii) The Balance Sheet and Income and Expenditure Account/Receipts and Payments Account dealt with by this Report have been drawn up in the format prescribed by the Ministry of Human Resources Development, Government of India vide order No. 29-4/2012-FD dated 17 April 2015.

iii) In our opinion, proper books of accounts and other relevant record have been maintained by the National Institute of Technical Teachers' Training and Research, Chandigarh as required under Clause 19 (a) of the Memorandum of Association of the Institute in so far as it appears from our examination of such books.

iv) We further report that:

A. Balance Sheet

Application of funds

A.1 Fixed Assets

Advances Account (Capital work in progress): Rs.6.64 crore

It was pointed out in the previous year's Separate Audit Report that above includes Rs.1.30 crore¹ being the expenditure incurred on Capital work/ creation of fixed assets executed on deposit work basis. All these works have already been completed, assets handed over and put to use. Since these assets have already been put to use, capitalization on provisional basis subject to necessary adjustment in the year of final settlement should have been made in the books of accounts. Non-compliance of the observation of audit in the current accounts has resulted in understatement of Fixed Assets by Rs.1.14 crore (Rs.1.30 crore minus Depreciation Rs.0.08 crore for 2013-14 and Rs.0.08 crore for 2014-15), overstatement of Advances (Capital work in progress) by Rs.1.30 crore, and understatement of Expenditure by Rs.0.16 crore.

A.2 Current Assets (Schedule 7)

Cash and Bank Balances

With scheduled banks - in saving accounts: Rs.4.57 crore

(i) An amount of Rs.1.01 crore has been credited by the banks during the period from October 2011 to March 2015 but not taken by the Institute in its accounts. An amount of Rs.0.63 crore has been debited by the banks but not taken in accounts by the Institute. Thus, the bank balances as well as corresponding fund / liability has been understated by Rs.0.38 crore (Rs.1.01 crore minus Rs.0.63 crore).

(ii) As per the Cash book of the Institute above balance in the banks was Rs.4.52 crore. The difference of Rs.0.05 crore needs reconciliation and necessary correction in accounts.

B. Significant Accounting Policies (Schedule 23)

B.1 Significant Accounting Policy at Sl. No. 1 is incorrect to the extent that it discloses that the accounts have been maintained in the format prescribed by the Ministry of Finance,

¹ Construction work of New Hostel Block Rs.0.30 crore and other related works under OBC/ OSC Scheme Rs.0.63 crore, construction of all weather path Rs.0.21 crore, Development of language and communication lab Rs. 0.07 crore and Construction of open air stage Rs. 0.09 crore.

Government of India vide letter dated 21-16/ 2012-TS. II dated 21st February 2012 whereas the accounts have been maintained in the Revised Format of Accounts prescribed by the Ministry of Human Resource Development, Government of India vide letter dated 29-4/ 2012-IFD dated 17th April 2015.

B.2 Income from Consultancy

The Institute has not disclosed Accounting Policy regarding income from Consultancy (Rs.0.87 crore- Schedule 13) in the Accounts.

C. General

C.1 Net impact of Audit comments on the Annual Accounts

Net impact of Audit comments on the Annual Accounts of the Institute for the year ending 31 March 2015 is as under:

- i Asset understated by Rs.0.22 crore.
- ii Liabilities understated by Rs.0.38 crore.
- iii Capital/Corpus Fund overstated by Rs.0.16 crore.

C.2 Provision for Pension Fund

Provision for liability towards pension on superannuation of employees has not been made despite being pointed out in the last year's audit report. Non-provision of liability towards pension was in contravention to the Format of Accounts prescribed by the Ministry.

C.3 It has been pointed out in the previous year's Separate Audit Report that figures of books of accounts do not match with the annual accounts in respect of accounting of fixed assets such as equipment and computers.

Additions to Equipments for Rs.3.42 crore were made during 2014-15 in the books. This wrongly included Rs.0.78 crore (Rs.0.07 crore Vehicles, Rs.0.07 crore Buildings, Rs.0.03 crore Maintenance Expenditure and Computers Rs.0.61 crore) and wrongly excluded Rs.0.15 crore (Rs.0.13 crore Advances paid in previous year towards Software and Rs.0.02 crore Fixed Assets included in Maintenance expenditure). In the fixed assets (Schedule 4), Additions of Rs.2.79 crore (Rs.3.42 crore minus Rs.0.78 crore plus Rs.0.15 crore) to the Equipments have been depicted. Thus, the ledgers for the fixed assets still do not match with the Accounts and needs to be corrected.

C.4 (i) Details of funds deposited with the various agencies/contractors/consultants, physical progress and expenditure incurred on related works have not been furnished to Audit.

(ii) Records related to advance Rs.0.69 lakh (on account of ETV, Media & Computer Science Building granted in 2002-03- Refer Note to Accounts Sl. No. 11) and status of related work(s) had not been produced during previous audit and this audit also.

C.5 It was pointed out in the previous year that Note 1 regarding Building Account on last page of Notes on Accounts states that an advance of Rs.10.69 lakh out of the advance amount deposited with Chandigarh Administration for construction of Staff Quarters is awaiting adjustment in Institute. This note is incorrect to the extent that an advance amount of Rs.10 lakh (out of above-mentioned Rs.10.69 lakh) have already been capitalized under the Building Account in the accounts for the year 2010-11 and balance Rs.0.69 lakh only is outstanding advance in the accounts as on 31 March 2014. No action has been taken by the Institute to correct the above note in the accounts for the 2014-15.

D. Grants in aid

Out of the available funds of Rs.26.12 crore (Plan Rs.8.69 crore and Non-plan Rs.17.43 crore), including previous year balance of Rs.0.45 crore (Plan Rs.0.17 crore and Non Plan Rs.0.28 crore*) and Grant in Aid received from Govt. of India, New Delhi during the year Rs.25.67 crore (Plan Rs.8.52 crore and Non Plan Rs.17.15 crore),) the Institute fully utilized the funds available i.e. Rs.26.12 crore leaving Nil unspent balance at the end of the year (after deducting advances of Rs.7.19 crore as on 31.03.2015).

Besides the Institute has an unspent balance of Internal Revenue Generation Rs.8.56 crore as on 31.03.2015.

E. Management letter

Deficiencies which have not been included in the Audit report have been brought to the notice of the Institute's management through a management letter issued separately for remedial/ corrective action.

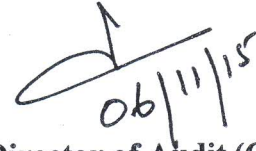
- v) Subject to our observations in the preceding paragraphs, we report that the Balance Sheet, Income & Expenditure Account and Receipts & Payments Account dealt with by this report are in agreement with the books of accounts.
- vi) In our opinion and to the best of our information and according to the explanations given to us, the said financial statements read together with the Accounting Policies and Notes on Accounts, and subject to the significant matters stated above and other matters mentioned in Annexure to

* As per previous year's SAR, closing balance of Non Plan Grant in aid was Rs.10.19 crore which included balance of Internal Resource Generation (IRG) of Rs.9.91 crore. The balance of IRG of Rs.9.91 crore has now been excluded from the opening balance.

this Audit Report give a true and fair view in conformity with accounting principles generally accepted in India:

- a. In so far as it relates to the Balance Sheet, of the state of affairs of the National Institute of Technical Teachers' Training and Research, Chandigarh as at 31st March 2015; and
- b. In so far as it relates to Income & Expenditure Account, of the deficit for the year ended on that date.

For and on behalf of the C & AG of India.

A handwritten signature in black ink, followed by the date '06/11/15' written below it.

Principal Director of Audit (Central),

Chandigarh

Place: Chandigarh

Date:

Annexure to Audit Report

1. Internal Audit System:

Internal Audit system was found to be inadequate in view of the fact that the Internal Audit manual has not been prepared and scope of internal audit was inadequate.

2. Internal Control System:

Internal control system was found to be adequate in areas seen by audit except that the Institute has not obtained the security deposits/ fidelity guarantees from the employees dealing with the valuables such as cash and stocks.

3. Physical verification of Library Books:

Last Physical verification of library books was conducted during the period from 10 November 2014 to 21 November 2014 and its report is not yet finalised. Physical verification for the year ended 31 March 2015 was pending.

4. Physical verification of fixed assets other than the library books:

Physical verification of fixed assets other than the library books for the year 2014-15 has not been conducted so far.

The physical verification of Fixed Assets for the year 2013-14 was conducted in April 2014 and fixed assets valuing Rs.71.53 lakh were identified as unserviceable during the physical verification. Status of getting approval to declare these assets as obsolete/ unserviceable from the Board of Governors, decision of the Board thereon and follow-up action taken on the decision of the Board in the matter was called for but the same is still awaited.

5. Physical verification of inventory

Physical verification of inventory for the year 2014-15 was pending.

6. Regulatory in payment of statutory dues

The Institute was regular in depositing the statutory dues.



Deputy Director

**NATIONAL INSTITUTE OF TECHNICAL TEACHER'S TRAINING AND RESEARCH
SECTOR 26, CHANDIGARH
BALANCE SHEET AS AT 31st March, 2015**

SOURCES OF FUNDS	SCHEDULES	Current year	(Rs. In Lacs) Previous year
UNRESTRICTED FUNDS			
Corpus Fund	1	4,212.24	3512.55
General Fund		-1287.74	-848.86
DESIGNATED EARMARKED / ENDOWMENT FUNDS	2	1,962.63	1,534.35
CURRENT LIABILITIES & PROVISIONS	3	2,354.37	2115.70
TOTAL		7,241.51	6,313.74
APPLICATION OF FUNDS			
FIXED ASSETS			
Tangible Assets	4	2,891.99	2,667.55
Intangible Assets			
Capital Work in progress		664.12	548.49
INVESTMENTS FROM EARMARKED/ ENDOWMENT FUNDS	5	-	-
Long term			
Short term			
INVESTMENTS-OTHERS	6	-	-
CURRENT ASSETS'	7	3,478.81	2900.12
LOANS, ADVANCES & DEPOSITS	8	206.59	197.58
TOTAL		7,241.51	6,313.74
SIGNIFICANT ACCOUNTING POLICIES	23		
CONTINGENT LIABILITIES AND NOTES TO ACCOUNTS	24		

Sd/-
Accounts Officer
NITTTR, Chandigarh

Sd/-
Director
NITTTR, Chandigarh

NATIONAL INSTITUTE OF TECHNICAL TEACHER'S TRAINING AND RESEARCH
SECTOR 26, CHANDIGARH
INCOME & EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31ST MARCH, 2015
(Rs. In Lacs)

Particulars	Schedule	Amount Current Year	Amount Prev. Year
<u>INCOME</u>			
Academic Receipts	9	206.25	138.44
Grants / Subsidies	10	1,988.31	1,696.00
Income from Investments	11	-	
Interest Earned	12	104.60	106.22
Other Incomes	13	201.73	138.07
Prior Period Income	14		
<u>TOTAL (A)</u>		2,500.89	2,078.73
<u>EXPENDITURE</u>			
Staff Payments & Benefits(Establishment Expenses)	15	2,038.42	1796.33
Academic Expenses	16	248.78	182.71
Administrative & General Expenses	17	525.40	461.1
Transportation Expenses	18	3.21	4.73
Repairs & Maintenance	19	123.97	126.55
Finance Costs	20	-	5.89
Depreciation	4		
Other Expenses	21	-	3.22
Prior Period Expenses	22		
<u>TOTAL (B)</u>		2,939.77	2580.53
Balance being excess of expenditure over income (A-B)		-438.88	-501.80
Transfer to / from Designated Fund			
Building fund			
Others (specify)			
<u>Balance Being Surplus / (Deficit) Carried to Capital Fund</u>			
SIGNIFICANT ACCOUNTING POLICIES	23		
CONTINGENT LIABILITIES AND NOTES TO ACCOUNTS	24		

Sd/-
Accounts Officer
NITTTR, Chandigarh

Sd/-
Director
NITTTR, Chandigarh

**NATIONAL INSTITUTE OF TECHNICAL TEACHERS' TRAINING AND RESEARCH
SECTOR-26, CHANDIGARH
SCHEDULE FORMING PART OF RECEIPTS AND PAYMENTS ACCOUNT FOR THE
YEAR ENDED 31.3.2015**

A RECEIPTS	CURRENT YEAR		PREVIOUS YEAR	
			(Rupees in lakh)	
I Balance at the beginning of the year				
Cash in hand	11.10		2.10	
Temporary Imprest	11.19		3.35	
Balance in Bank	293.55		171.04	
Deposit Account	1,252.47		1,052.41	
Interest accrued on FDR	-		-	
FDR- Against Letter of Credit	-		30.35	
Total Cash	1,568.31	-	1,259.25	
	PLAN	NON PLAN	PLAN	NON PLAN
II Grants-in-aid received from Govt. of India				
On Capital Account-Creation of Capital Assets	579.06	-	895.00	-
On Revenue Account	272.91	1,715.40	325.00	1,371.00
Grant from AICT for Computer Science	-	-	32.85	-
Grant from T-Equip - World Bank	300.68	-	100.00	-
Grant- under RPS By AICTE	0.42	-	13.33	-
Grant under - Sponsored Project for Computer Sc.	5.14	-	39.50	-
Amount awarded by GOI	-	-	2.00	-
Total Grants	1,158.21	1,715.40	1,407.68	1,371.00
III Deposits (including Consultancies) (as annexure-I)	-	760.81	-	635.74
IV Internal Resources				
a Interest Account				
Interest earned on S/B Account & FDR	-	113.42	-	55.53
Interest received on advances to staff	-	1.00	-	3.67
Total	-	114.42	-	59.20

b Rental Receipts				
Rent from residential Houses	-	10.04	-	6.32
Rent from Auditorium		0.20		0.14
Rent from Hostel	-	46.51	-	42.59
Rent from AICTE	-	-	-	0.84
Rent from Mess/Canteen	-	0.12	-	0.24
Total		56.87		50.13
c Fee Receipts				
Fee from ME Students	-	206.24	-	124.90
Fee under various courses	-	-	-	12.88
Total		206.24		137.78
d Receipt from other sources				
Institute Receipts (Misc.)		5.08	-	6.85
Recovery against books		-	-	0.09
Receipt from Publication		0.41	-	0.86
Sale of Newspaper & Periodicals				-
Sale proceeds of fixed assets		9.07	-	11.98
Receipt from consultancy share		86.73	-	47.70
Royalty share		-	-	0.74
Sale proceeds of Prospects		0.01	-	6.22
Ph.D Fee		-	-	3.75
Penal Interest				0.01
Overhead charges		51.56	-	38.37
RTI Fee		0.03	-	0.08
Photocopy charges		0.65	-	0.45
Sundry Creditors		-		-
Written off Securities		-		-
Application Fee		2.61		
Mess Charges		0.06		
Total		156.21		117.10
e Other Receipts				
Recovery of Loans & Advances	0.65	8.24	1.73	4.99
Time barred cheques	-	-	-	-
Permanent Imprest	-	0.02	-	-
Pension & Leave salary contribution	-	-	-	-
Total	0.65	8.26	1.73	4.99
Total Receipts	0.65	542.00	1.73	369.20
V SPONSORED PROJECTS				
AICTE QIP Poly	0.18	-	36.79	-
IT-Bionery Project	-	-	-	-
DST NIMAT - I	0.53	-	0.30	-
DST NIMAT - II	-	-	1.51	-
Inspire Fellowship - Academic Cell	5.80	-	2.85	-
CT-13 Mech. for CTU	47.46	-	25.62	
PBR 12- PWD PBR	-	-	8.71	-

PADB	-	-	53.84	-
SADB 13	85.35	-	49.45	-
PSCB - 13 - Mech.	48.39	-	253.88	-
DASA	1.00	-	0.50	-
National Handicap Projects/ Fin. Dev.	-	-	0.45	-
5.13 ETV Video Film for Shimla	-	-	-	-
5.13 ETV IGNOU	-	-	2.94	-
5.13 ETV Video Film for Palampur	-	-	-	-
5.13 ETV Video Film for Kapurthala	-	-	0.24	-
TEQIP EC 83	5.17	-	-	-
Ph.D Academic Fee	-	-	-	-
DIL- RD	-	-	2.28	-
ETV - Misc.	-	-	0.18	-
PSCB - Computer Science	-	-	4.45	-
Others	-	-	96.13	-
Total	193.88	-	540.12	-
Grand Total	2,921.05	3,018.21	3,208.78	2,375.94
Total Plan and Non Plan	5,939.26		5,584.72	

B PAYMENTS	CURRENT YEAR		PREVIOUS YEAR	
	Plan	Non Plan	Plan	Non Plan
I Non Recurring				
Renovation of buildings	166.43	-	52.68	-
Advance renovation with CPWD (8 works)	-	-	-	-
Equipment purchased during the year	290.82	-	526.90	-
Advance adjusted for water lane pipe	-	-	-	-
Re-surfacing of Roads	-	-	15.41	-
Software for Library	-	-	-	-
Equipment - Sponsored Project	-	-	-	-
Library Books	-	-	2.64	-
Library Journal	-	-	9.51	-
Renovation of Electrical	-	-	-	-
Fire Fighting to CPWD	-	-	13.00	-
Furniture purchased during the year	11.12	-	23.50	-
Installation of Electrical Power Generator	-	-	-	-
Installation of Water pipe Line	-	-	-	-
Advance for Equipment - Mechanical	-	-	22.65	-
Advance for Equipment - Applied Science	-	-	21.45	-
Work in Progress - Advance to CPWD	-	-	52.36	-
Work in Progress - Advance to CPWD - PRO Cell	-	-	1.64	-
Work in Progress - Type - II Houses - CPWD	-	-	29.33	-

Work in Progress - Civil Lab - CPWD	-		13.65	
Work in Progress - BSNL			110.13	
Work in Progress - New Building	159.73			
Total	628.10		894.85	-

II RECURRING

a Establishment expenses

Salaries-Pay & Allowances to:

Faculty	63.10	525.55	81.25	488.73
Technical Non-Teaching/C&D Staff	55.80	411.34	50.17	442.62
Salary - Outsourced Person	0.76	95.49	-	85.12
Salary- NPS		107.25		
Bonus	-	3.83	0.42	3.59
Dearness allowance	-	30.14	3.50	25.00
Children Allowance		11.27		
LTC	-	-	-	31.87
Medical treatment charges	-	22.54	-	21.16
Reimbursement of cost of books	-	-	-	0.72
Institute Share-(CPF)	-	1.64	-	1.59
Pension - Faculty	-	50.17	-	110.24
Pension - C & D	-	298.78	-	140.63
Pension & Retirement benefits to retirees	-	5.85	-	32.55
Gratuity	-	45.65	-	36.78
Leave encashment-for LTC	-	28.64	-	11.72
Leave encashment	-	34.07	-	17.31
Leave Salary & Pension Contribution	-	1.80	-	3.42
New Pension Fund	24.32	-	-	26.07
Professional Development Allowance	-	18.28	-	8.24
Tuition Fee	-	-	-	10.62
Secretarial Assistance	-	0.02	-	0.26
Arrear MACP	-	-	-	7.49
Total	143.97	1,692.32	135.34	1,505.73

b Other Payments

Over time allowance	-	0.31	-	0.44
Library Books	-	-	-	0.46
Library Journals	-	-	-	8.93
TA including STC	150.06	12.58	134.54	16.71
TA to BOG/Experts	-	0.53	-	3.30
Stipend	-	1.27	-	2.12
Fee & Honorarium	40.59	25.15	19.81	27.95
Academic Contingencies	15.32	6.97		
Total	205.97	46.82	154.35	59.91

c Administrative Expenses

Property Tax	-	5.27	-	2.64
Printing & Stationery	-	10.37	1.23	8.57
Liveries	-	0.87	-	0.45
Hindi Day	-	0.44	-	0.49
Indp./Vishwakarma day	-	0.22	-	0.09
Contingencies various labs.(Academic)	-	-	2.85	5.60
Advertisement	-	12.83	-	5.49
Teachers Day	-	0.02	-	0.29
Annual Sports	-	5.77	-	4.87
Vigilance Day	-	-	-	0.02
News Paper & Periodicals	-	0.60	-	0.88
Annual Day celebrations	-	1.69	-	3.21
Postage & Telegramme	-	3.00	-	3.21
Telephone Trunkcall charges	-	3.46	-	3.58
Entertainment & Contingencies	13.81	8.64	-	0.46
Library Books/ Journals	-	9.13	-	-
Legal /Professional charges	-	3.53	-	3.50
Library Contingencies	-	-	-	1.29
Ground Rent	-	0.59	-	0.59
Printing of Publication	-	-	-	-
Audit Fee	-	0.50	-	1.54
Library Membership	-	-	-	-
Misc. Expenses(Office)	-	0.88	-	7.69
Interest on TDS	-	-	-	-
Interest on Service Tax	-	-	-	-
Overhead Expenses	-	-	-	0.54
ME Course expenses	-	39.92	-	-
ISO 9001-2008	-	-	-	0.15
Total	13.81	107.73	4.08	55.15

d Operation & Maintenance

Mntnc. Student centre	-	0.51	-	3.79
Mntnc. Electrical	-	38.23	-	21.27
Mntnc. Electrical lab	-	0.52	-	4.06
Mntnc. Rural Development	-	0.87	-	1.05
Mntnc. Media	-	3.12	-	3.15
Mntnc. ETV Lab	-	1.72	-	3.86
Mntnc. Civil Lab	-	1.89	-	5.15
Mntnc. Phones & Communications	-	2.25	-	2.31
Mntnc.. Electronics & Communications	-	1.22	-	0.67
Mntnc. Guest House	-	7.24	-	1.40
Mntnc. Furniture	-	7.98	-	1.46
Mntnc. Buildings	-	19.64	-	44.98
Mntnc. Campus	-	1.94	-	1.16
Mntnc. Vehicle	-	3.21	-	4.73
Mntnc. Curriculum Development Centre	-	-	-	-
Mntnc. Ref. & air conditioning lab	-	8.07	-	7.63
Electricity & Water Charges	-	42.84	-	54.56

Rapair of Machinery	-	-	-	0.11
Mntnc. EDIC Lab	-	0.28	-	0.25
Mntnc. Electronics Service Centre	-	0.28	-	0.80
Mntnc. Hostel	-	14.24	-	2.41
Mntnc. Computer Sc. Lab.	-	6.81	-	3.09
Mntnc. Mechanical Engg Lab	-	2.27	-	1.03
Mntnc. Education & Educational Lab	-	-	-	0.33
Mntnc. Applied Sc. Lab	-	1.23	-	0.60
Loans & Advances to staff	0.27	9.85	-	3.91
Mntnc. Sports	-	-	-	-
Purchase of Medicines	-	-	-	0.12
Internet Connectivity	-	-	-	0.16
Mntnc. Institute Generator	-	-	-	7.79
Mntnc. Subscription fee for Library software	-	-	-	-
Mntnc. Office	-	0.52	-	-
Mntnc. Academic Cell	-	0.00	-	-
Mntnc. CDC	-	0.17	-	-
Mntnc. EMGT	-	0.19	-	-
Mntnc. IMCO	-	1.40	-	-
Mntnc. ISO	-	0.12	-	-
Mntnc. Library	-	1.41	-	-
Mntnc. Hindi Cell	-	0.02	-	-

Total	0.27	180.05	-	181.83
Total Payments	992.12	2,026.92	1,188.62	1,802.62

e Sponsored Projects

3.2.14 ETV	-	-	0.08	-
Customized AICTE Sponsored Project	2.09	-	2.47	-
ETV 5.13 Video Film Shimla/ Gyanvani	0.87	-	-	-
IT Binary- AICTE Projects-RD	0.36	-	0.31	-
Eco-Water literacy- RD	-	-	2.23	-
AICTE QIP Poly	15.08	-	19.49	-
PBR 12	-	-	24.40	-
5.13 ETV Kapurthala	-	-	-	-
5.13 ETV Palampur	-	-	1.40	-
DST - Nimmat - I	-	-	2.76	-
DST - Nimmat - II	-	-	0.96	-
Ph.D Fee Academic Cell	-	-	-	-
DIL Project	0.37	-	1.55	-
5.13 ETV IGNOU	0.14	-	1.26	-
GATE -AICTE Project	-	-	-	-
PADV Mechanical	-	-	-	-
PADB -13	-	-	74.24	-
5.12 ETV Training Prog.	-	-	0.16	-
Inspire Fellowship - Academic Cell	5.80	-	2.86	-
SADB -13	86.65	-	46.94	-
PSCB - 13	30.76	-	101.77	-

1.2.207 - SIRD	-	-	0.04	-
CT 13	1.53	-	6.64	-
5.17 Person with Disability	7.80			
Tuip EC 83	4.55			
5.16 Comp Science	22.99			
5.13 Misc ETV	0.41	-		
Vocational Education Film DPI	0.01			
ETV				
Others	55.77	-	20.70	
Total	235.18	-	310.26	-

f T-Equip

T.A.	323.00	-	18.24	
Consumables	9.36	-	0.38	
Salaries	-	-	2.41	
Equipment	0.00	-	40.79	
Stipend	-	-	9.98	
Honorarium	0.18	-	1.20	
Total	332.54	-	73.00	-

g RPS- AICTE

Consumables	0.06	-	0.29	-
Equipment	-	-	12.23	-
Total	0.06	-	12.52	-

**h Deposits (including
consultancies)-annex-1**

- 667.65 - 629.39

Cash Balance

Cash in hand	2.92		11.10	
Temporary Imprest	5.56		11.19	
Bank Balance	457.85		293.55	
Fixed Deposits	1,218.46		1,252.47	-
FDR- Against Letter of Credit			-	
Interest Accrued on FDR	-		-	
Total Cash	1,684.79		1,568.31	-
Total	3,244.70	2,694.57	3,152.71	2,432.01
Total Plan and Non Plan	5,939.26		5,584.72	

Sd/-
Accounts Officer
NITTTR, Chandigarh

Sd/-
Director
NITTTR, Chandigarh

**NATIONAL INSTITUTE OF TECHNICAL TEACHERS' TRAINING AND RESEARCH,
SECTOR-26, CHANDIGARH
BALANCE SHEET GPF/CPF AS AT 31.3.2015**

LIABILITIES	Amount	ASSETS	Amount
			(Rupees in lakh)
<u>GPF</u>			
Opening Balance	1,088.09	Investment	1,513.93
Add: Subscription in the year	237.48	Int. accrued as on 31.03.15	98.94
Add: Sub for March 2015		Subscription due for march 2015	
Add Interest credited	97.63	GPF	
Less: Subscription for March 2014		CPF	
Less: Advance/ Withdrawal	152.94	UC due to CPF	
Closing Balance	1,270.27	NPS-II	
		Tax recovered from interest on	
		Investments pending refund from	
		Income Tax Department	
<u>CPF</u>			
Opening Balance	160.41	<u>Cash at Bank</u>	
Add: Subscription in the year	1.98	Indian Bank	66.91
Add: Sub for March 2015			
Add Interest credited	14.05		
Less: Subscription for March 2014			
Less: Advance/ Withdrawal	-	Sundry Debtors	1.13
Closing Balance	176.44		

Institute Contribution (CPF)

Opening Balance	113.80	
Add: Subscription in the year	1.64	
Add: Sub for March 2015		
Add Interest credited	9.90	
Less: Subscription for March 2014		
Less: Advance/ Withdrawal	-	125.34
Closing Balance		

NPS Tier-II Account

Opening Balance		
Add: Subscription in the year		
Add: Sub for March 2015		
Add Interest credited		
Less: Subscription for March 2014		
Less: Advance/ Withdrawal		
Closing Balance		

Interest Reserve

Opening Balance	28.93	
Add: Excess of Income over expenditure	79.92	
Closing Balance		108.85
Dead Account		0.02

Total	1,680.92	Total	1,680.92
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**Sd/-
Accounts Officer
NITTTR Chandigarh**

**Sd/-
Director
NITTTR Chandigarh**

ACCOUNTING POLICIES

1. The Accounts have been maintained in the format as prescribed by the Government of India, Ministry of Human Resource Development, vide their letter No. 21-16/2012-TS.II dated 21st February 2012, issued by the Under Secretary to the Govt of India.
2. The Accounts have been prepared on accrual basis.
3. Depreciation on fixed Assets has been provided on written down value method on the rates specified in the Income Tax Act. Rules, 1962. The institute has not claimed depreciation on Fixed Assets purchased during the year out of World Bank aided TEQIP projects.
4. The Fixed Assets are stated at cost of acquisition including inward freight, duties and taxes and incidental and direct expenses related to acquisition, installation and commissioning. The fixed assets purchased out of sponsored projects and restricted projects are booked by credit to Capital fund and merged with Fixed assets of the Institution.
5. Expenditure on purchase of stores is accounted as revenue expenditure, except that the value of closing stock held on 31st March is set up as inventories by reducing the corresponding Revenue Expenditure on the basis of information obtained from Departments. They are valued at cost.
6. (i) The Institute receives grants-in-aid from Government of India under Plan(General)-Recurring, Plan-(Non-Recurring)-Creation of Capital Assets and Non-Plan (Recurring)schemes to meet the expenditure on salaries of employees, pension to retirees, traveling expenses for training of technical teachers, purchase of store/equipments and maintenance, etc. against Institute's annual budget approved by the Board of Governors. The funds, if remained unutilized at the end of the financial year, are carried over to the following financial year with the approval of the Government of India.

(ii) For specific projects, unspent balance/funds, if any, are refunded to the concerned sponsoring agencies/departments after the completion of the respective Project.
7. Institute receives funds against Sponsored Projects and Consultancy Project which are shown as deposits in Schedule 3a. The Institute recognizes its income on completion of project/consultancy.
8. Institute makes provision of employee benefits such as Leave Encashment and Gratuity on estimation basis.
9. The Board of Governors delegated powers jointly to the Director and the Accounts Officer of the Institute to approve and sign the Annual Accounts of the Institute before submission to Audit Officer vide Item No. B.4.4.8 in their meeting held on 27.1.2006.

Sd/-
Accounts Officer
NITTTR, Chandigarh

Sd/-
Director
NITTTR, Chandigarh

NOTES ON ACCOUNTS

1. This is a non-commercial organization and Income Tax is not applicable as in the case of Universities or other Educational Institutions existing solely for education purpose and not for the purpose of profit and which are wholly or substantially financed by the Government under Section 10(23C)(iii ab).
2. The details of funds maintained by Institute:

1. Corpus Fund

(Amount in Lacs)

Particulars	Current Year	Previous Year
Opening Balance	3512.55	2615.55
Add: Addition in Fund	702.49	897.00
Less: Utilization of Fund	2.80	
Closing Balance	4212.24	3512.55

The addition to Corpus fund is on account of Grant received from Ministry for Capital expenditure.

2. General Fund

(Amount in Lacs)

Particulars	Current Year	Previous Year
Opening Balance	(848.86)	(347.06)
Add: Addition in Fund		
Less: Utilization of Fund	(438.88)	(501.80)
Closing Balance	(1287.74)	(848.86)

3. Designated/ Earmarked Fund

(Amount in Lacs)

Particulars	Current Year	Previous Year
Opening Balance	1394.21	1268.29
Add: Addition in Fund	631.45	448.66
Less: Utilization of Fund	341.71	322.74
Closing Balance	1683.95	1394.21

4. Restricted Fund

(Amount in Lacs)

Particulars	Current Year	Previous Year
Opening Balance	140.14	52.16
Add: Addition in Fund	310.86	193.05
Less: Utilization of Fund	172.41	105.07
Closing Balance	278.59	140.14

3. The Goods including equipments, furniture etc. valuing Rs. 82.68 lakh were identified as obsolete/ unserviceable during the year 2013-14. Process for disposal and the sale proceeds shall be reported shortly.
4. In the year 1995, the Govt. of India, Ministry of Human Resource Development had approved construction of two buildings namely New Administrative Block and Hostel Block in the institute premises. As per guidelines, the work was executed through NBCC Ltd, a Govt. of India Enterprises as consultant. The NBCC Ltd invited tenders and construction work was allotted to Shri Vijay Kumar Garg & Company. The contract was signed between NBCC (on behalf of the NITTR Chandigarh) & the Contractor. Due to certain irregularities on the part of the contractor, the contract was terminated. The contractor filed a claim against NBCC. The award of Arbitration case has been announced on 23.06.2008 and as per award the respondent i.e. NBCC shall pay to the claimant Rs. 3734915/-. The Institute moved to court challenging the merit of the award through Institute Counsel but institute petition has been dismissed on 22.03.2011 being not maintainable as the award is not against him. The NBCC paid the award payment to M/s Vijay Kumar Garg Contractor (P) LTD and asked institute to make payment along with legal expenses and consultancy services payment i.e. Rs. 3841465/-. The NBCC vide letter dated 05.09.2012 has initiated Arbitration Proceedings against institute and meeting is yet pending.

(ii) An amount of Rs. 36.36 lakh (including interest earned from time to time) towards security from the contractor has been withheld.
5. TDS deducted by the various firms as confirmed on website amounting to Rs. 2.44 lakh has been given effect in the Balance Sheet.
6. This is to certify that there is an unspent balance of Rs. 1676.32 lakhs including FDRs worth Rs. 1216.70 lakhs as on 31.3.2015.
7. Institute is in possession of land measuring 18.863 acres out of which 15.883 acres is held as free hold.
8. The Security towards ME students of Rs. 51.01 lacs is outstanding as on 31st March 2015.
9. Schedule one to Twenty one are annexed to and form an integral part of the Balance Sheet as on 31.3.2015.
10. Detail of Capital Work in Progress including capital advance of Rs. 664.12 lakhs is as follows:

Purpose of Advance	Year of Advance	Amount (Rupees in lakh)
ETV, Media & computer Science Building	2002-03	0.69
Construction of Hostel Block	2007-08	29.89
Capital Work in Progress with Chd Admin. - New Lab	2010-11	57.20
Capital Advance for building-work in progress- OBC	2010-11	63.11
Advance for building-work in progress - OBC-OSC	2010-11	107.61
Advance for Renovation of Building	2012-13	38.78
Advance for Renovation of Building	2013-14	207.11
Advance for Renovation of Building	2014-15	159.73
Total		664.12

11. Amortization of lease premium on the basis of period of lease has been charged under rules.

Building Account

1. An advance of Rs. 10.69 lakh out of the advance amount deposited with Chandigarh Administration for construction of Staff Quarters is awaiting adjustment in Institute Accounts. The work has since been completed and buildings handed over to the Institute. The certificate for having received the final payment from this Institute has been obtained from the Sub Divisional Engineer, W/s Sub Div. -3 Chandigarh. However, accounts in support of this expenditure are awaited from the concerned quarter.
2. PUDA has filed a civil suit for recovery of Rs. 85.00 lakh against the Institute. The Institute has also filed a counter claim worth Rs. 17.00 lakh against PUDA. As per Order in the court of Navjeet Klair, Civil Judge (Jr Divn), Chandigarh dated 22.02.2014, it is ordered that the suit of the plaintiff fails and the same is dismissed. The counter claim of the defendants being time barred is also dismissed.

Sd/-
Accounts Officer
NITTTR, Chandigarh

Sd/-
Director
NITTTR, Chandigarh



National Institute of Technical Teachers Training and Research

(An ISO 9001 : 2008 Certified Institute)

Phone : (0172) 2759500, Fax : (0172) 2791366, 2793893

E-mail : director@nitttrchd.ac.in, dirtitttrchd@yahoo.com

Website : www.nitttrchd.ac.in