



ANNUAL REPORT

2013-14



ANNUAL REPORT

(including annual accounts)

2013-14



**NATIONAL INSTITUTE OF
TECHNICAL TEACHERS TRAINING AND RESEARCH
SECTOR – 26, CHANDIGARH –160 019 (INDIA)**

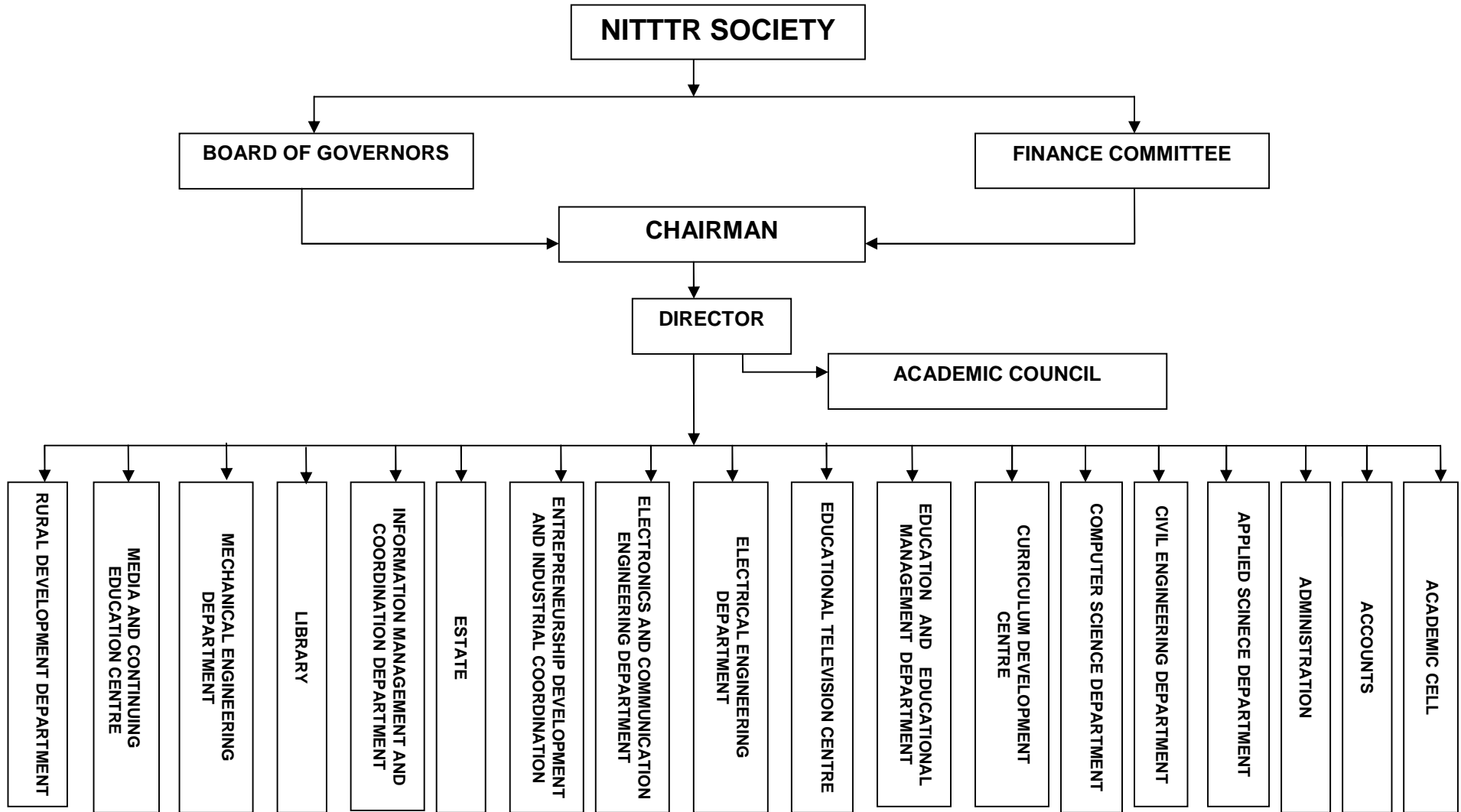
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ORGANISATIONAL STRUCTURE OF NITTTR CHANDIGARH



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**LIST OF MEMBERS OF THE NITTTR CHANDIGARH SOCIETY
AS ON 31.03.2014**

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 Praveen Prakash, IAS Joint Secretary (TEL), Department of Higher Education, Ministry of Human Resource Development, Government of India, Shastri Bhawan, NEW DELHI – 110 115	Member
4.	Shri B Purushartha, IAS Director, Technical Education and Industrial Training, Punjab, Takniki Shiksha Bhawan, Plot No.1, Sector 36-A, CHANDIGARH – 160 036	Member
5.	Dr. K.P. Isaac Member Secretary All India Council for Technical Education, 7 th Floor, Chander Lok Building, Janpath, NEW DELHI – 110 001	Member
6.	Shri Ajay Jain, IAS, Commissioner, Department Technical Education, 5 th & 6 th Floor, BRKR Bhawan, Tankbund Road, Saifabad, HYDERABAD – 500 063 (Andhra Pradesh)	Member

Sr. No.	Name and Designation with full address	Status
7.	Shri Vijayendra Kumar, IAS Director General, Technical Education, Haryana, Bay No.7-12, Sector 4, PANCHKULA (Haryana)	Member
8.	Prof Manoj K Arora Director PEC University of Technology Sector 12, CHANDIGARH – 160 012	Member
9.	Dr. Atul Bora Director, Technical Education, Kahilipara, GUWAHATI – 781 019 (ASSAM)	Member
10.	Shri Rajendra Kumar, IAS Principal Secretary Govt. of NCT of Delhi Department of Training & Technical Education, Muni Maya Ram Marg, Near TV Tower, Pitam Pura, DELHI – 110 088	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 31.03.2014**

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 Praveen Prakash, 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. N. Sathyamurthy Director, Indian Institute of Science Education and Research, Sector 81, Post Office Manauli, SAS Nagar, MOHALI – 140 306	Member
5.	Shri B. Purushartha, IAS Director, Technical Education and Industrial Training, Punjab, Takniki Shiksha Bhawan, Plot No.1, Sector 36-A, CHANDIGARH – 160 036	Member

Sr. No.	Name and Designation with full address	Status
6.	Shri S.P. Oswal, Chairman, Vardhman Group of Companies, LUDHIANA (Punjab) - 141001	Member
7.	Dr. K.P. Isaac Member Secretary, All India Council for Technical Education, 7 th Floor, Chander Lok Building, Janpath, NEW DELHI – 110 001	Member
8.	Shri Ajay Jain, IAS Commissioner, Department of Technical Education, 5th and 6th Floor, BRKR Bhawan, Tankbund Road, Saifabad, HYDERABAD (Andhra Pradesh) – 500 063	Member
9.	Shri Vijayendra Kumar, IAS Director General, Technical Education, Haryana, Bay No.7-12, Sector 4, PANCHKULA (Haryana)	Member
10.	Prof Manoj K Arora Director PEC University of Technology Sector 12, CHANDIGARH – 160 012	Member
11.	Dr. Atul Bora Director, Technical Education, Kahilipara, GUWAHATI (Assam) – 781 019	Member
12.	Shri Rajendra Kumar, IAS Principal Secretary Govt. of NCT of Delhi Department of Training & Technical Education, Muni Maya Ram Marg, Near TV Tower, Pitam Pura, DELHI – 110 088	Member

Sr. No.	Name and Designation with full address	Status
13.	Dr. B.S. Pabla Professor and Head Mechanical Engineering Department 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 and Research, Sector 26, CHANDIGARH – 160 019	Member Secretary

**LIST OF MEMBERS OF THE FINANCE COMMITTEE
OF NITTTR, CHANDIGARH
AS ON 31.03.2014**

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 Praveen Prakash, 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. N. Sathyamurthy Director, Indian Institute of Science Education and Research, Sector 81, Post Office Manauli, SAS Nagar, MOHALI – 140 306	Member
5.	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 31.03.2014**

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, Indian Institute of Science Education and Research, Sector -81, Post Office Manauli, SAS Nagar, MOHALI - 140 306	Member
3.	Dr. I K Bhat Director, Malaviya National Institute of Technology, JAIPUR - (Rajasthan)	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. S S Pattnaik Professor and Head, Educational Television Centre, NITTTTR, Sector-26, CHANDIGARH - 160 019	Member
8.	Dr. S Chatterji Professor and Head, Electrical Engineering Department , NITTTTR, Sector-26, CHANDIGARH - 160 019	Member

Sr. No.	Name and Designation with full address	Status
9.	Dr. J S Saini Dean, Extension & Consultancy and Professor and Head, Rural Development Department, NITTTR, Sector-26, CHANDIGARH - 160 019	Member
10.	Dr. SBL Sachan Professor and Head, Electronics and Communication Engineering Department, NITTTR, Sector-26, CHANDIGARH - 160 019	Member
11.	Dr. B S Pabla Professor and Head, Mechanical Engineering Department, NITTTR, Sector-26, CHANDIGARH - 160 019	Member
12.	Dr. S S Banwait Professor and Head, IMCO, NITTTR, Sector-26, CHANDIGARH - 160 019	Member
13.	Dr. (Mrs.) S P Bedi Professor and Head, Education and Educational Management Department, NITTTR, Sector-26, CHANDIGARH - 160 019	Member
14.	Dr. A B Gupta Professor and Head, Curriculum Development Centre, NITTTR, Sector-26, CHANDIGARH - 160 019	Member
15.	Dr. Suresh Dhameja Professor and Head, EDIC, NITTTR, Sector-26, CHANDIGARH - 160 019	Member

Sr. No.	Name and Designation with full address	Status
16.	Dr. Sanjay Sharma Professor and Head, Civil Engineering Department, NITTTR, Sector-26, CHANDIGARH - 160 019	Member
17.	Dr. Hemant Sood Professor, Civil Engineering Department, NITTTR, Sector-26, CHANDIGARH - 160 019	Member
18.	Dr. Rakesh Wats Associate Professor and Faculty Incharge Media and Continuing Education and Administration, NITTTR, Sector -26, CHANDIGARH - 160 019	Member
19.	Dr. Sunil Dutt Associate Professor and Faculty Incharge, Academic Cell, NITTTR, Sector-26, CHANDIGARH - 160 019	Member
20.	Dr. (Mrs.) Maitreyee Dutta Associate Professor and Faculty Incharge, Computer Science Department, NITTTR, Sector-26, CHANDIGARH - 160 019	Member
21.	Dr. B C Choudhary Associate Professor and Faculty Incharge, Applied Science Department NITTTR, Sector -26, CHANDIGARH - 160 019	Member
22.	Shri Manmohan Singh, Senior Librarian (Acting Chief Librarian) NITTTR, Sector-26, CHANDIGARH - 160 019	Member

Sr. No.	Name and Designation with full address	Status
23.	Dr. Poonam Syal Associate Professor, Rural Development Department, NITTTR, Sector-26, CHANDIGARH - 160 019	Member
24.	Dr. Lini Mathew Associate Professor, Electrical Engineering Department NITTTR, Sector-26, CHANDIGARH - 160 019	Member
25.	Mrs. Shano Solanki Assistant Professor, Computer Science Department, NITTTR, Sector -26, CHANDIGARH - 160 019	Member
26.	Er. Amit Doegar Assistant Professor Computer Science Department, NITTTR, Sector -26, CHANDIGARH - 160 019	Member
27.	Dr. (Ms.) P K Tulsi Dean, Research and Development and Professor, Education and Educational Management Department, NITTTR, Sector-26, CHANDIGARH - 160 019	Member Secretary

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.

The Mission

The mission of the institute is to dynamically respond, through an integrated package of research and development, education and training and extension services, to the needs of technical and vocational education, industry and community and challenges of advances in technology, including modern communication technology.

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 (2013-14)

- National Award from President of India for the Empowerment of Persons with Disabilities - 2013
- **241** Students admitted in Master's Degree Programmes (Regular and Modular) in **06** disciplines.
- **12** Students enrolled for Ph.D. Programmes in different disciplines at the Institute.
- National Conference on Advances in Manufacturing Technology, 23-24 May, 2013.
- National Conference on Dynamics of Entrepreneurship Development, 21-22 Nov, 2013.
- National Conference on Sustainable Infrastructure Development, 13-14 March, 2014.
- International Conference on Computer Network and Information Technology, 20-21 March, 2014.
- **48** Induction Training Programmes through ICT and trained **4221** teachers.
- **17** Content Based Training Programmes through ICT and trained **5062** teachers.
- Signed **08** MOUs with State Board of Technical Education, Haryana; Himachal Pradesh Technical University, HP; State Board of Technical Education, J&K; Punjab Technical University, Punjab; Bikaner Technical University, Rajasthan; State Board of Technical Education, Uttarakhand; State Board of Technical Education, Uttar Pradesh; Uttar Pradesh Technical University, Uttar Pradesh under the Project on Rolling out MHRD/National Mission on Education through Information and Communication Technology (NMEICT) Products in Polytechnics and Engineering Colleges.
- **03** MOUs signed with:
 - ❖ Uttar Pradesh Technical University (GBTU), Lucknow
 - ❖ Sardar Patel University of Police, Security and Criminal Justice (SPUPSCJ), Jodhpur
 - ❖ Guru Nanak Dev Engineering College (GNDEC), Ludhiana

- Design and Testing Services to Industry (**13** projects)
- **292** Students and Industry Professionals Trained through **26** Training Programmes.
- **06** Recruitment Projects for the State of Punjab.
- **02** Recruitment Projects for Chandigarh Administration
- NCTEL Setup to Integrate Technology to the Teaching Learning System.
- Job Fair for Persons with Disabilities.
- **07** Training Programmes organised under TEQIP
- **04** Sponsored Research and Development Projects

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 2013-14, **368** short term training programmes were conducted for faculty/staff of engineering colleges and polytechnics which were attended by **13,815** participants from various states of the country.

2.1.1 Long Term Programmes

2.1.1 (a) Ph.D. Programmes

Institute is a Research Centre of Panjab University, Chandigarh and Punjab Technical University, Jalandhar for Ph.D. Programmes. As on March 2014, **71** 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 **71** students, **27** candidates joined Ph.D under QIP (Poly) Scheme at this institute.

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:

- Engineering Education
- 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 in the above six disciplines. The ME programmes are duly approved by AICTE and affiliated to Panjab University.

Admissions made in these programmes during 2013-14 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)	--	05	19	24	AS-01, CH-01, BH-01, GJ-02, HA-01, HP-03, J&K-01, PU-06, RA-01, UK-01, UP-05, WB-01
2.	Civil Engineering (Construction Technology and Management)	03	02	18	23	CH-06, DE-02, HA-04, HP-03, J&K-05, PU-03
3.	Computer Science and Engineering	--	14	13	27	CH-05, HA-07, HP-08, PU-02, UK-02, UP-03,
4.	Electrical Engineering (Instrumentation and Control)	01	09	14	24	AP-01, CH-01, BH-02, HP-03, J&K-01, MP-01, PU-03, RA-02, UP-10,
5.	Electronics and Communication Engineering	--	08	08	16	DE-01, HP-02, PU-05, RA-02, UP-06,
	Total	04	38	72	114	AP-02, AS-01, BH-02, CH-13, DE-03, GJ-02, HA-13, HP-19, J&K-07, MP-01, PU-19, RA-05, UK-03, UP-24, 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	10	--	18	CH-01, HA-02, HP-02, J&K-01, PU-05, KE-01, UP-06
2.	Civil Engineering (Construction Technology and Management)	05	03	04	12	HA-01, HP-03, PU-04, J&K-02, MP-01, UP-01
3.	Computer Science and Engineering	07	27	--	34	HA-01, HP-05, J&K-03, PU-01, RA-08, UP-16
4.	Electrical Engineering (Instrumentation and Control)	04	19	01	24	AP-01, CH-01, HP-09, J&K-01, MP-01, RA-01, UK-01, UP-09
5.	Electronics and Communication Engineering	10	25	--	35	AP-01, BH-01, HA-02, HP-05, J&K-03, KE-02, MP-01, RA-01, UK-01, UP-18
6.	Engineering Education	--	01	03	04	CH-03, HP-01
	Total	34	85	08	127	AP-02, BH-01, CH-05, HA-05, HP-25, J&K-10, KE-03, MP-03, PU-10, RA-10, UK-02, UP-51,

Note: **43** (regular) and **119** (modular) students of previous batches are also on roll.

ABBREVIATIONS USED			
AP	Andhra Pradesh	J&K	Jammu & Kashmir
AS	Assam	KE	Kerala
BH	Bihar	MP	Madhya Pradesh
CH	Chandigarh	PU	Punjab
DE	Delhi	RA	Rajasthan
GJ	Gujarat	UK	Uttarakhand
HA	Haryana	UP	Uttar Pradesh
HP	Himachal Pradesh	WB	West Bengal

2.1.2 Short Term Programmes

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 2013-14, the short term programmes conducted for faculty/staff of polytechnics are as follows:

(i) Faculty / Technical Staff of Polytechnics

• No. of Short Term Courses conducted for Polytechnic Teachers/Administrators of Polytechnic System/ Working Professionals from industry	:	183
• No. of Participants	:	2751
• No. of Training Workshops	:	29
• No. of Participants	:	1433
• No. of National Seminars/Conferences	:	04
• No. of Participants	:	306
• No. of Curriculum Development Workshops	:	20
• No. of Participants	:	247

The department-wise break-up of short term courses (Table 1), workshops (Table 2), national seminars and conferences (Table 3) with duration and number of participants is summarised as follows:

TABLE 1 - SHORT TERM COURSES FOR POLYTECHNICS

Sr. No.	Department / Centre	Number of STCs	Total Duration in weeks	Number of participants	Person weeks
1.	Applied Science	11	13	55	60
2.	Civil Engineering	21	21	164	164
3.	Computer Science	25	29	338	469
4.	Centre for Physically Challenged Persons	2	2	40	40
5.	Curriculum Development	8	8	151	185
6.	Education and Educational Management	15	18	312	417
7.	Educational Television Centre	3	3	45	45
8.	Electrical Engineering	12	12	133	133
9.	Electronics and Communication Engineering	9	9	197	197

Sr. No.	Department / Centre	Number of STCs	Total Duration in weeks	Number of participants	Person weeks
10.	Electronics Service Centre	8	8	116	116
11.	Entrepreneurship Development and Industrial Coordination	15	17	267	315
12.	Information Management and Coordination Department	2	2	55	55
13.	Library	4	5	50	60
14.	Mechanical Engineering	18	19	192	194
15.	Media and Continuing Education Centre	8	8	54	54
16.	Rural Development	8	18	196	196
17.	QCI Programmes on QMS and QTT	14	14	386	386
	Total	183	206	2751	3086

Break-up of Short Term Courses (STCs) for polytechnics as per venue of conduct is as under:

Total number of STCs conducted	=	183
STCs conducted at NITTTR, Chandigarh	=	130
STCs conducted at Polytechnics in the States	=	53

TABLE 2 - TRAINING WORKSHOPS

Sr. No.	Department / Centre	Number of Workshops	Total Duration in weeks	Number of participants	Person weeks
1.	Civil Engineering	06	3.0	217	108.5
2.	Curriculum Development Centre	01	0.5	30	15
3.	Computer Science	01	2.0	22	44
4.	Information Management and Coordination	09	4.5	449	224.5

Sr. No.	Department / Centre	Number of Workshops	Total Duration in weeks	Number of participants	Person weeks
5.	Rural Development	10	5.0	587	294
6.	Centre for Physical Challenged Persons	01	0.5	20	10
7.	Media and Continuing Education Centre	01	0.5	108	54
	Total	29	16	1433	750

TABLE 3 – NATIONAL SEMINARS AND CONFERENCES

Sr. No.	Title of the Programme	Duration in weeks	Number of participants	Person weeks
1.	National Conference on Advances in Manufacturing Technology, 23-24 May, 2013	0.5	53	26.5
2.	National Conference on Dynamics of Entrepreneurship Development, 21-22 Nov, 2013	0.5	57	28.5
3.	National Conference on Sustainable Infrastructure Development, 13-14 March, 2014	0.5	129	64.5
4.	International Conference on Computer Network and Information Technology, 20-21 March, 2014	0.5	67	33.5
	Total	2.0	306	153

(ii) Faculty / Technical Staff of Engineering Colleges

During the year 2013-14, **120** courses were conducted for faculty and technical staff of Engineering Colleges in which **1781** teachers participated and accounted for **2003** person weeks of training. The department wise break-up of short term courses, total duration and number of participants is given in Table 4.

**NATIONAL AWARD FOR THE EMPOWERMENT OF
PERSONS WITH DISABILITIES – 2013**

PERSONS WITH DISABILITIES, 2013

Vigyan Bhawan, New Delhi



**Dr. M P Poonia receiving
'Best Institution Award'
from
Hon'ble President,
Government of India.**

**REGIONAL PROGRAMME-CUM-INTERNATIONAL SEMINAR ON
TVET FOR SUSTAINABLE DEVELOPMENT 27 MAY – 01 JUNE, 2013**



Pedagogical Training under TEQIP- II



**Supervisory Development Programme for
Technical Staff of MNIT, Jaipur under TEQIP-II**

**A VIEW OF INTERNATIONAL/NATIONAL SEMINARS/
CONFERENCES ORGANISED AT THE INSTITUTE**



**National Conference on Advances in
Manufacturing Technology,
May 23 - 24, 2013**

**National Conference on
Dynamics of Entrepreneurship Development
21- 22 November, 2013**



**National Conference
on Sustainable
Infrastructure Development (NCSID)
13-14 March, 2014**



**International Conference on
Computer Network and Information Technology,
20-21 March, 2014**



TABLE 4 - SHORT TERM COURSES FOR ENGINEERING COLLEGES

Sr. No.	Department / Centre	Number of STCs	Total Duration in weeks	Number of participants	Person weeks
1.	Applied Science	12	15	101	119
2.	Civil Engineering	7	8	179	226
3.	Computer Science	27	30	409	523
4.	Education and Educational Management	15	17	418	452
5.	Educational Television Centre	4	4	32	32
6.	Electrical Engineering	16	16	189	189
7.	Electronics and Communication Engineering	9	10	167	174
8.	Electronics Service Centre	4	4	58	58
9.	Entrepreneurship Development and Industrial Coordination	5	5	65	65
10.	Library	4	5	19	21
11.	Mechanical Engineering	8	8	35	35
12.	Media and Continuing Education	6	6	47	47
13.	Rural Development	3	3	62	62
	Total	120	131	1781	2003

Break-up of Short Term Courses (STCs) for Engineering Colleges as per venue of conduct is as under:

Total number of STCs conducted	=	120
STCs conducted at NITTTR, Chandigarh	=	97
STCs conducted at Engineering Colleges in the States	=	23

The state-wise percentage participation in short term courses conducted for **polytechnics** and **engineering colleges** is shown in **Figure 1** and **Figure 2** respectively.

Figure 1: Statewise Percentage Participation in Short Term Courses for Polytechnics for the year 2013-14
 No. of Courses = 183
 No. of Participants = 2751

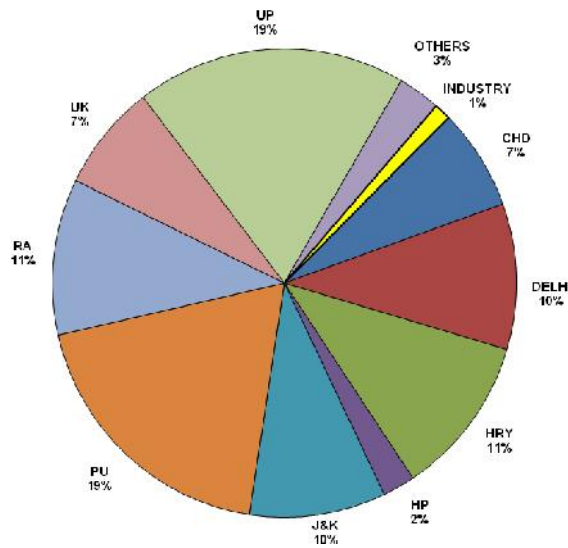
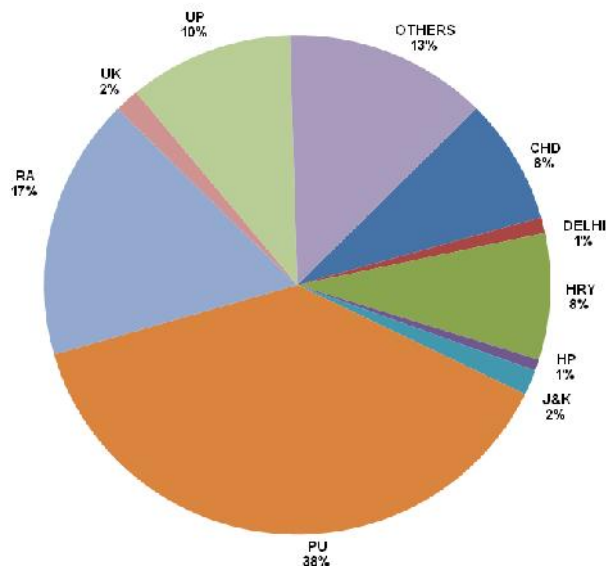


Figure 2: Statewise Percentage Participation in Short Term Courses for Engineering Colleges for the year 2013-14
 No. of Courses = 120
 No. of Participants = 1781



(iii) Training Programmes through ICT

In addition to programmes conducted through contact mode, the institute offered induction training programmes with integration of Information and Communication Technology to achieve the target of training about 20,000 teachers from technical institutions in the northern region as per the mandate assigned to the institute by MHRD, GOI. During the year 2013-14, Induction Training programmes as well as content updating programmes in technical disciplines were offered to the teachers of technical institutions through ICT.

The objectives of the induction training programmes are to enable the participating teachers to (a) appreciate the role of teachers in technical education, (b) evolve strategies for ensuring quality in technical education, (c) explain the role of institutional leader, (d) appreciate the importance of NSQF, (e) explain the process of curriculum development, (f) explain the strategies to ensure effective implementation of curriculum, (g) explain the steps in planning and delivery of effective instruction, (h) explain the characteristics, advantages and disadvantages of Case Study, Seminar and Brainstorming, (i) explain the principles of effective oral communication, (j) set reliable and valid question papers, (k) plan, organize and evaluate practical work, (l) explain the techniques for developing creativity and promoting innovations, (m) explain the techniques of developing entrepreneurial qualities and promoting industry institute interaction and (n) explain the role and features of CDTP scheme and mainstreaming PWD in technical education. During the year under report, ICT based training programmes conducted by the institute are given below:

No. of ICT based Induction Training Programmes conducted	=	48
No. of Teachers Trained	=	4221
No. of ICT Based Content Updating Training Programmes	=	17
No. of Teachers Trained	=	5062

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 **2013-14**, **02** curricula for the state of Punjab have been designed. **07** curricula for the state of Haryana, **01** curricula for the state of

J&K and 06 curricula for the state of Uttarakhand have been revised by Curriculum Development Centre of the institute. The details of curricula designed and revised are given below:

A.	CURRICULA DESIGNED
1.	02 Diploma Courses for the State of Punjab 1. Food Technology 2. Tool and Die Making
B.	CURRICULA REVISED
1.	07 Diploma Courses for the State of Haryana 1. Chemical Engineering 2. Chemical Engineering (Pulp and Paper) 3. Automobile Engineering 4. Mechatronics 5. Computer Engineering 6. Plastic Technology 7. Mechanical Engineering (Tool and Die)
2.	01 Diploma Course for the State of J & K 1. Quantity Surveying and Construction Management
3.	06 Diploma Courses for the State of Uttarakhand 1. Civil Engineering 2. Electrical Engineering 3. Electronics and Communication Engineering 4. Automobile Engineering 5. Information Technology 6. Computer Engineering

2.3 Instructional Material Development

During the year 2013-14, 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:

• Laboratory Manuals	:	03
• Modules	:	02
• Booklets/Readers	:	05
• Course Material for Training Programmes	:	303
• Educational Video Films	:	58
• Capsules of Video Films for Gyan Darshan	:	365

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 2013-14:

1. Identifying Opportunities for Self-employment and Entrepreneurship.
2. Status of Resources in Laboratories and Workshops for J&K State.
3. Eco-Water Literacy and Sanitation Project.
4. Bio-energy, Solar and Water Treatment: Technology and Business Solutions under Science Bridge Project between India and UK.
5. Study on Providing Incentive to Persons with Disabilities (PWDs) Undergoing Polytechnic Diploma Programmes under PHC Quota.

In addition to above, **03 Ph.D.** thesis and **162 ME** thesis were completed under the guidance of faculty of this institute.

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 theories and applications of educational, technical and training 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.

365 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 Channel.

Implementation of Government of India Schemes on

- ◆ **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 the 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 during June, 2013 in which **77** 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

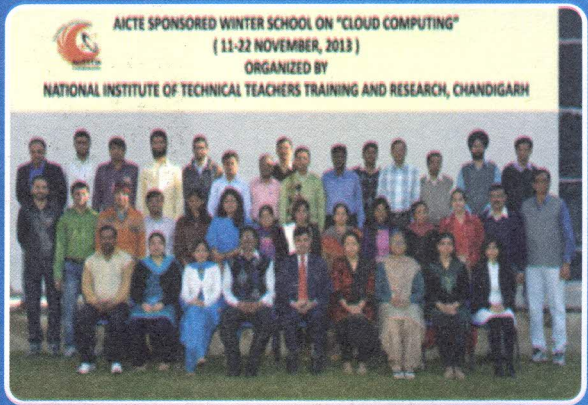
The institute signed **08** MOUs with State Board of Technical Education, Haryana; Himachal Pradesh Technical University, HP; State Board of Technical Education, J&K; Punjab Technical University, Punjab; Bikaner Technical University, Rajasthan; State Board of Technical Education, Uttarakhand; State Board of Technical Education, Uttar Pradesh; Uttar Pradesh Technical University, Uttar Pradesh under the Project on Rolling out MHRD/NMEICT Products in Polytechnics and Engineering Colleges. **03** MoUs were also signed with Uttar Pradesh Technical University (GBTU), Lucknow, Sardar Patel University of Police, Security and Criminal Justice (SPUPSCJ), Jodhpur, Guru Nanak Dev Engineering College (GNDEC), Ludhiana. 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

JOB FAIR FOR DIFFERENTLY ABLED PERSONS - 21 JUNE, 2013



**Industry Academia Collaboration Workshop
June 27 - 28, 2013**

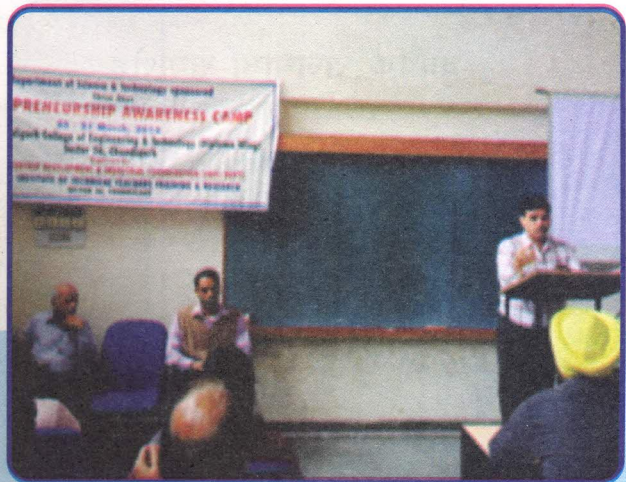


Participants of a Training Programme

DST SPONSORED PROGRAMMES



**Faculty Development Programme on
Entrepreneurship Development, 17-28 Feb, 2014**



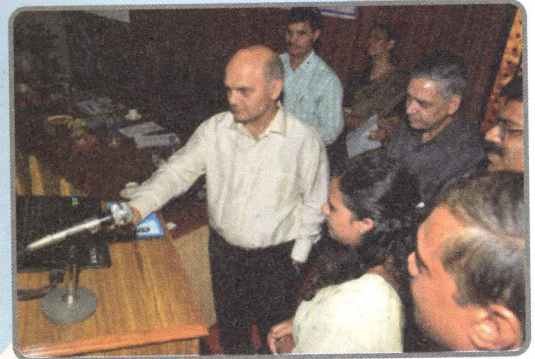
**Entrepreneurship Awareness Camp
25-27 March, 2014**

IMPORTANT DAYS CELEBRATED AT THE INSTITUTE



Dr KK Talwar, Chairman, BOGs addressing the audience

Annual Day Celebrations



Launching of NCTEL Web Portal on 7th September, 2013 by Sh. K.K. Sharma, IAS



Best Polytechnics and Engineering Colleges Awardees.



वार्षिक राजभाषा समारोह



Teachers' Day Celebration



Flag hoisting by Dr. M P Poonia, Director on Independence Day, 2013

- 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 2013-14, the following consultancy projects were undertaken:

⇒ Design and Testing Services to Industry (13 Projects)

Design of Bituminous Mixes, Design of Concrete Mixes, Testing and Quality Control in Roads and Buildings, Soil Testing and Field Investigations, Bearing Capacity Determination, Non-destructive Testing, Quality Control of Road in Municipal Corporation, Chandigarh, Investigations and Design of Road under Bridge on Railway Road Crossing near Mauli Jagran (UT Chandigarh), Design and Evaluation of Road Pavements, Testing of Civil Engineering Materials, Design of NTPC Administration Building at Koldam Project, Sundernagar (HP).

⇒ 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.
- Preparation of Detailed Project Report for Establishing New Polytechnics in Chandigarh.

⇒ Training Programmes for Students

The institute organised **26** training programmes through which **292** 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 :

- ❖ Supervisory Development Programme for Technical Staff of MNIT, Jaipur.
- ❖ Induction Training Programme for Faculty of Thapar University.
- ❖ Advanced Pedagogy for Faculty of MNIT, Jaipur.
- ❖ **04** programmes on Pedagogical Training (Module I) for faculty of technical institutions from Andhra Pradesh.

⇒ **Other Projects**

- Conducted Aptitude Test for Recruitment of Drivers and Conductors for Chandigarh Transport Undertaking, Chandigarh Administration. (02 Projects).
- Conduct of Aptitude Test for Recruitment of Executives at different levels for Punjab State Co-operative Bank Limited, Chandigarh (Punjab). (06 Projects)

2.6 Other Contributions (Including Individual Contributions)

The faculty of the institute have also been actively involved in other academic activities like contributing research papers to the various journals, conventions, seminars and conferences. **134** papers of the institute faculty were published in the journals and **125** papers were presented by the faculty in various conferences and seminars. **The details are enclosed at Annexure- II.**

Dr. Maitreyee Dutta won ROTA WOMEN OF DISTINCTION AWARD by Rotary Club Chandigarh (Midtown and Rotaract District 3080) for her active and constructive participation and generous contribution to upliftment of society and exemplifying humanity in letter and spirit, in action and vision.

2.7 Academic Achievements of the Departments

Applied Science Department

During the year 2013-14, the department has conducted **11** short term courses for polytechnic teachers and **12** short term courses for engineering college teachers, which were attended by **55** and **101** teachers respectively. These programmes were conducted in the areas of OFC Network and Trouble Shooting, Nanotechnology: Opportunity and Challenges, Nanomaterials: Characterization and Application, Physics Laboratory Organisation and Updating, Optical Fibers: Communication and Sensing Application, Nuclear Radiations & their Application, Nuclear Techniques and Instrumentations, Nuclear Energy and Power Options, Laser and their Applications, Laser Science and Technology, Fiber Optic Tests and Measurements and Optical Fibers and their Applications, MATLAB: Introduction and its applications and Applied Numerical Methods with MATLAB. Instructional material was also prepared on these topics and given to the participants. The department faculty also guided **01** Ph.D. thesis during the year under report and presented a paper in 8th Chandigarh science congress organised by Punjab University, Chandigarh.

Centre for Physically Challenged Persons

The centre organized **02** training programmes for the polytechnics teachers which were attended by **40** participants. The Centre organized an Annual Review Workshop for polytechnics

implementing the PWD Scheme wherein **20** 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 and Career Opportunities for the Persons with Disabilities. The centre also produced instructional materials on these topics.

The department organized a regional conference on Hearing Impairment: Issues and Mainstreaming”, 05-06 July, 2013, jointly with National Rehabilitation Institute at Pt. JR Government Polytechnic College, Hoshiarpur (Punjab).

The centre in collaboration with CII, Chandigarh organized a Job Fair during June 2013 for the Qualified Differently Abled Persons in which **77** candidates with disabilities were selected by **09** companies.

The centre also underlook one research study related to issues regarding differently abled persons. Findings of the research study have been shared with the project staff working in project polytechnics.

Civil Engineering Department

During the year the 2013-14, the department conducted **21** short term training programmes for polytechnic teachers and **7** short term courses for engineering colleges teachers respectively which were attended by **164** and **179** teachers and working professionals from industry. The department conducted training programmes in the areas of 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.

During the year under report, the department conducted **06** workshops in different areas, such as Water Proofing and Building Maintenance, Software Application in Structural Design, STADD PRO and Allied Softwares, Modern Building and Construction Practices which were attended by **217** participants. The department also conducted one National Conference on “**Sustainable Infrastructure Development from 13-14 March, 2014**” which was attended by **129** participants.

The department faculty published **03** papers in the journals and presented **12** papers in National/International seminars/conferences. 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 2013-14, the department conducted **25** training programmes for polytechnic teachers and **27** programmes for faculty of Engineering Colleges, which were attended by **338** and **409** participants respectively. Some of the significant programmes included: Cloud Computing, Network Security and Firewall, Linux Administration, Web-based ERP, Moodle LMS, PHP and MySQL, Open Source Technologies, Wireless Communication and Mobile Computing, Hardware Maintenance and Networking, VB.Net, Multimedia Authority, Web Hacking and Network Security, Mobile Computing and Matlab Programming, Web-based Content Development through Moodle etc.

The department also organised an International Conference on **Computer Network and Information Technology on 20-21 March, 2014** at the institute which was attended by **67** delegates.

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. The department also conducted two workshops on Signal and Systems from 02-12, January, 2014 as Remote Centre Co-ordinator, organised by IIT, Kharagpur.

During the year under report, the department has also undertaken an R& D Project on Establishment of Cyber Security and Forensic Tools sponsored by Ministry of Information Technology, New Delhi. The department faculty also guided many Ph.D and ME thesis and has published **09** papers in International/National journals and presented **25** papers in International/National Seminars and Conferences. The department faculty also attended training programmes at outside institutions.

Curriculum Development Centre

Curriculum Development Centre conducted **08** short-term courses for the polytechnics through which **151** teachers were trained. The centre also conducted **20** Curriculum Development Workshops for design/revision of curricula in which there were **247** participants from industry, institutions of higher learning and polytechnics. During the year under report, the department designed **02** curricula for diploma courses for the state of Punjab and revised **06** curricula at

diploma level for the state of UK, **07** curricula for the state of Haryana and **01** curriculum for the state of J&K. Services were provided to the states in Northern region for effective implementation of their curricula.

Centre for Development of Technical Competencies

A Centre for Development of Technical Competencies (CDTC) has been actively working at the institute. During the year 2013-14, the Centre has conducted **26** numbers of programmes of various duration and trained **292** students. The amount generated by the conduct of students training is ₹ **21,73,031/-** as Internal Revenue Generation for the institute.

Education and Educational Management Department

Education and Educational Management Department conducts both long term and short term programmes in the area of Education and Educational Management. M.Tech. (Engineering Education) programme is offered on modular basis.

During the year 2013-14, the department organized **30** short term training programmes, out of which **15** programmes were organized for polytechnic faculty and **15** were organized for the faculty of engineering colleges. **312** faculty members from polytechnics and **418** faculty members from engineering colleges participated in the various programmes. The programmes were conducted in the areas of Effective Teaching and Class-room Communication, Research Methodology, Competency for 21st Century, Preparing Students or Job Interview, Personality Development and Stress Management. In addition, short courses namely: Modern Office Management and Personality Development were conducted for the staff of polytechnics and officials from DTE/BTE. Instructional material was prepared on the topics in which short term courses were conducted and was given to the participants. The department faculty also developed **03** readers.

Under the guidance of faculty **09** M.Tech Engineering Education thesis have been submitted by the students. The department faculty has presented **02** papers in National/ International Conferences and has published **05** papers/abstract in National/ International Journals/Proceedings. Two of the departmental faculty have attended Faculty Development Programmes organised by the prestigious institutions.

Educational Television Centre

The centre conducted **07** short term training programmes for polytechnics / engineering colleges and trained **77** teachers. Significant programmes conducted during the year included Soft Computing Techniques and Applications, Audio and Video Hardwares - Repair and Maintenance,

Antenna and Microwave, Learning through Experimentation, Animation Graphics and e-content Development, Neural Networks and Optimization Techniques and Application. 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 areas 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 **58** Video Films on various educational aspects during the year 2013-14 and also recorded **34** video films which are in the final stage of completion.

365 capsules of video films were sent to EMPC, IGNOU, New Delhi during 2013-14 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 2013-14, the department conducted **12** short term programmes for polytechnic teachers and **16** for faculty of engineering colleges, in which **133** and **189** teachers were trained respectively. 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, Artificial Neural Network and Fuzzy Logic using MATLAB and Computer Aided Circuit Simulation etc. The department developed instructional material in these areas and also developed a manual on Microcontrollers and its Interfacing.

Under the guidance of faculty, **01** Ph.D. and **30** M.E. thesis have been completed by the students. The department faculty has published **28** papers in the National/International journals and presented **24** papers in National/International conferences. The department faculty also deliver key note address and expert talks in Conferences and training programmes at various institutions.

Electronics and Communication Engineering Department

During the year 2013-14, the department conducted **09** training programmes for polytechnics and **09** programmes for faculty of engineering colleges in which **197** and **167** teachers participated respectively. The significant programmes conducted were in the areas of Mobile Communication, CDMA and GSM, MATLAB Programming and ANN, Computer Networks, Induction Training Programmes, Digital Signal Processing, Optical Fiber Communication, Introduction to Embedded System, Introduction to W/less Sensor Networks, Embedded System Applications, GSM to 3G, TCP Based Computer Network, Soft Computing Techniques, Wireless LANs, Communication

Using MATLAB, FPGA Based Digital System Designing, Introduction to Digital System Design, 4G Technology, VLSI System Design Engineering. The department faculty also prepared instructional material on these topics and gave to the participants of short term courses.

In addition to ME Regular and Modular classes of various sessions/spells during the year, under the guidance of faculty, **64** 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 **74** papers in the National/International journals and presented **26** papers in National/International conferences. The department faculty/staff have also attended various training programmes at outside organisations during the year.

Electronics Service Centre

Electronics Service Centre established in the year 1984, has been undertaking repairs of electronics and electrical instruments of technical institutions in the region through training programmes on a no-profit-no-loss basis. During the year under report, centre has conducted **08** programmes for polytechnics and **04** training programmes for engineering colleges in which **116** participants from polytechnics and **58** from engineering colleges participated and got training in the areas of Electronics Components, PCB Layout, Fabrication and Testing, Fabrication of Experimental Kits and its Repair, Repair and Maintenance of Power Supply and Experimental Kits and Power Supply Design, Fabrication and Testing. The participants of the technical institutions were provided hands-on training through repair of equipment/instruments of their institutes. The centre also provided training to **115** students in the areas of Embedded System Design, Power Electronics, Circuits, Power Supply Design, Fabrication and Testing.

Entrepreneurship Development and Industrial Coordination Department

The department during 2013-14 conducted **15** short term courses for polytechnics and **05** for faculty of engineering colleges in which **267** teachers from polytechnics and **65** teachers from engineering colleges were trained respectively. Comprehensive training material modules were prepared for all these programmes and distributed among participating teachers. The faculty also developed 02 modules on Entrepreneurship and Management.

During the year under report, the department completed **01** research study and **02** research studies in the field of entrepreneurship development are in progress.

The department organized a series of training programmes under TEQIP-II in which 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, Government of India. The faculty of the department conducted 03 International training

programmes at NITTTR, Chandigarh, Bangladesh, and Nepal on different facets of Entrepreneurship, TVET and Strategic Planning of Technical and Vocational Institutions. Need based assistance was also provided to different institutions (Engineering College and Polytechnics) in the country for promotion of entrepreneurship and industry-institute interaction. Department of Science and Technology, Government of India sponsored **02** weeks faculty development programme on Entrepreneurship Department and three number of **03**-days Entrepreneurship Awareness Camps were also organized in different polytechnics and engineering colleges by the department. The department also organised a visit-cum interaction session of international delegates at NITTTR Chandigarh from time to time.

Faculty of the department presented **08** papers in national / international conferences/seminars. The faculty also delivered key-note addresses and acted as panelists in these conferences and seminars.

The department got conducted Internal Audits and External Renewal Audits of ISO 9001-2008 Certificate for effective maintenance of established Quality Management System (QMS) in the institute. All documents pertaining to this International Standards were updated as per recent changes made in its 2008 revised version.

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 **37568** volumes of technical and educational books, **4006** 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 **69** teachers of library science/ librarians of polytechnics and engineering colleges.

Mechanical Engineering Department

The department conducted **18** short term courses for faculty of polytechnics and **8** short term courses for engineering colleges, in which **192** teachers from polytechnics and **35** teachers from engineering colleges were trained in various areas of mechanical engineering. Significant training programmes conducted by the department included Auto CAD, CAD using CATIA, PLC

Applications in Mechanical Engineering, CAD/CAM, Mechatronics, Modeling and Simulation using MATLAB, Auto CAD 3D, Refresher Course in Mechanical Engineering, Teaching Practices in Engineering Drawing, Supervisory Development Skills for Workshop Instructors, Metrology Lab Practices, Repair and Maintenance of Machine Tools, CNC Machines: Operation and Programming, Welding Technology, Material Testing of NDT, Computer Aided Design and Drafting, Robotics and Industrial Automation, Recent Developments in Refrigeration and Air-conditioning etc. Department also conducted training programmes on “IC Engines” and “Robotics and Automation” through ICT. **A National Conference on “Advances in Manufacturing Technology”, was conducted by the department on 23-24 May, 2013** in which **53** delegates from different parts of the country participated. . Two training programs for newly trained engineers of Punjab State Transmission Corporation were conducted by the department. **One** Ph.D and **14** M.E. thesis were completed under the guidance of department faculty. **07** papers in journals and **18** 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

The centre of Media and Continuing Education during the year 2013-14 conducted **08** programmes for the faculty of polytechnics and **06** programmes for the faculty of engineering colleges from the Northern Region and trained **54** and **47** teachers respectively. Out of these programmes **02** programmes were conducted at National Level. A one day workshop on Accreditation of UG Engineering Programmes for the technical institutions in the state of Haryana in which 108 faculty members participated was also coordinated by the department. A Supervisory Development Programme for Technical Staff of MNIT, Jaipur was organized at NITTTTR, Chandigarh from 13-18 January, 2014 under TEQIP-II. **19** technical staff members from different Laboratories and Workshops sponsored by MNIT, Jaipur participated in the programme. In addition to development of soft skills, participants were given hands on training on specialized equipments in laboratories and workshops, laboratory practices, calibration and testing of equipments, safety and accident prevention for enhancing their efficiency, effectiveness and quality of work. In addition, the department also conducted Induction Training Programme for IT Officers of Punjab State Co-operative Agricultural Development Bank from 13 January, to 01 February, 2014.

Rural Development Department

The department has conducted **08** training programmes for the faculty of polytechnics and **03** programmes for the faculty of engineering colleges in which **196** polytechnic teachers and **62** engineering college teachers participated. The department has also coordinated one ICT based

training programme on Alternate Energy Resources for Engineering Colleges and Polytechnics in which **212** teachers participated. **10** workshops with respect to implementation of the Scheme of Community Development through Polytechnics were organized for different states in the northern region in which **587** participants participated.

The training programmes were conducted in the areas of : Eco-Water Literacy and Sanitation Awareness Camp; Skill Development and Income Generation in Rural Areas; Renewable Energy Based Technologies, Climate Change, Disaster Management and Sustainable Development, Appropriate Technologies and their Dissemination, Micro and Small Enterprise Identification and Project Formulation, Beekeeping & Mushroom Cultivation, Green Technologies and Projects for Sustainable Development, Innovative Approach to Skill Development and Employment Generation in India. The department has also produced study materials on these topics.

The department has organized four training programmes on Quality Management Standards and Quality Technology Tools which were attended by **117** polytechnic teachers.

Information Management and Coordination Department

During the year under report, the department prepared annual report of the institute for the year 2012-13 and submitted to MHRD, Government of India for their perusal and placing in the Parliament. The other major activities of the department during 2013-14 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 2014-15 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 **02** training programmes in the areas of Pharmacy and Textile Design which were attended by **55** 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 2013-14, the following renovation work carried out by Estate Department:

- ◆ Renovation of 11 rooms including attached bathrooms and kitchen in PG Hostel at ground floor and a common corridor.
- ◆ Renovation of mini dining hall, kitchen, ground and first floor lounge, reception area in Har Gobind Khorana Guest House.
- ◆ Preparation of Volley-ball ground and flood lights.
- ◆ Renovation of offices/laboratories in departments of Mechanical Engineering and Electrical Engineering in Homi Bhabha Academic Block.

3.2 Equipment

Equipment worth ₹ 526.90 lakh was purchased during the year 2013-14. The total value of equipment increased to ₹ 3080.10 as on 31.03.2014. After providing necessary depreciation on the assets, the net value of the equipment remained at ₹ 1205.10 lakh as on 31.03.2014.

3.3 Furniture

Furniture worth ₹ 23.50 lakh was purchased during the year 2013-14. The total value of furniture increased to ₹ 311.05 Lakh. After providing necessary depreciation under rules, the net value of furniture remained at ₹ 194.70 lakh as on 31.3.2014.

3.4 Expenditure

An expenditure amounting to ₹ 3016.70 Lakh has been incurred during the financial year 2013-14 under various schemes as indicated below:

Sr. No.	Name of the Scheme	(Rupees in Lakh)
		Expenditure incurred
1.	Plan (Non-recurring) - Capital Assets	894.85
2.	Plan-General (Recurring)	310.26
3.	Non-Plan-(Recurring)	
	a) Salary - Part - A : 1086.99	
	b) Salary - Part - B : 419.31	1811.60
	c) Non-Salary components : 305.30	
	Total Expenditure	3016.70

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 2013-14

S. No.	Name and Address
1.	Shri Praveen Prakash, IAS, Joint Secretary (TEL), Department of Higher Education, MHRD, New Delhi.
2.	Prof. IK Bhat, Director, Malaviya National Institute of Technology, Jaipur-302017 (Rajasthan).
3.	Dr. Rajneesh Arora, Vice Chancellor, Punjab Technical University, Jalandhar
4.	Mr. Lowell Williams, Principal, Dudley College, UK
5.	Mr. Bob Chapman, Director of Learning, Dudley College, UK
6.	Mr. Matt Laws, Curriculum Manager, Dudley College, UK
7.	Ms. Kamaljit Virdee, Curriculum Manager (Business), Dudley College, UK
8.	Mr. Ben Gamble, Curriculum Manager, Dudley College, UK
9.	Dr. Gopal Khanal, Vice-Chairman, Council for Technical Education and Vocational Training, Nepal.
10.	Dr. Tanmoysan, Professor Applied Science, IIT, BHU, Varanasi
11.	Dr. P Ghosh, Associate Professor, IIT, BHU, Varanasi
12.	Dr. RK Mishra, Associate Professor, Electrical Engineering Department, IIT, BHU, Varanasi
13.	Dr. Bhawani Shankar Subedi, Executive Director, TITI, Nepal.
14.	Shri Laxmi Ram Paudel, Project Director, EVENT PS, Nepal.
15.	Shri Nir Bahadur Jirel, Director, CTEVT, Nepal.
16.	Shri Pramod Bhakta Acharya, Senior Accounts Officer, TITI, Nepal.
17.	Prof. Anurag Misra Director, Anand International College of Engineering, Agra Road, Jaipur.
18.	Prof. (Dr.) N N Husain, Director, Dronacharya College of Engineering, Gurgaon, Haryana.
19.	Prof. (Dr.) Vineet Tirth, Director, Moradabad Institute of Technology, Moradabad, UP.
20.	Prof. (Dr.) B.P. Nandwana, Dean, College of Technology and Engineering, Udaipur, Rajasthan.
21.	Dr. Shiddaya S Shirur, Registrar, JSS Academy of Technical Education, NOIDA, UP.

6.0 AUDITED ACCOUNTS

The Audited Accounts of the Institute for the year 2013-14 duly certified by Accountant General's office are enclosed at **Annexure IV**.

Annexure – I

INSTRUCTIONAL MATERIAL DEVELOPMENT

The following instructional material has been developed by the institute faculty during the year 2013-14 :

Sr. No.	Instructional Material Developed	Author(s) Name
PRINT MATERIAL		
Laboratory Manuals		
1.	Experiments with Optical Fibers	BC Choudhary
2.	Preparing list of major project works for the following diploma programmes: Electronics and Communication Civil Engineering Electrical Engineering Computer Engineering	CDC Faculty
3.	Open Source Forensic Tool	Computer Faculty
Modules		
1.	Principles and Practices of Entrepreneurship Development	SK Dhameja
2.	Principles and Practices of Management	SK Dhameja
Booklets / Readers		
1.	NBA Guidelines for Accreditation of Technical Institutions (Diploma and Degree level institutions)	Rakesh Wats
2.	Booklet of Proceedings of Three days Training Programme on Energy Efficient & Green Buildings, NITTTR, Chandigarh, 24-26 February, 2014.	Himmi Gupta et.al
3.	Brainstorming Method	SP Bedi
4.	Group Discussion for Job Selection	SP Bedi
5.	Writing Research Papers	SP Bedi

In addition to above, instructional material for all 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. Role of Teachers in Improving Instructions, Part -1
2. Role of Teachers in Improving Instructions, Part- 2
3. How to Write a Research Proposal
4. How to Write a Research Article
5. Radio Frequency Integrated Circuit
6. Innovation and Creativity, Part-1
7. Innovation and Creativity, Part- 2
8. Roads to Hydrogen Fueled Automobiles
9. Biodiesel Operated Micro Trigeneration System
10. Emission Control Technology and Strategy for S I Engines
11. Engine Combustion Requirement
12. Implementation of Real Time Active Regeneration Injection Strategy in Diesel After Treatment System
13. Basic Concepts of PLC
14. Emission Testing in Automobile Engines
15. Control of Diesel Engine
16. Working Together for a Cleaner Environment
17. Engineering Thermodynamics-A Simplified Approach, Part -1
18. Engineering Thermodynamics: A Simplified Approach, Part -2
19. Community Participation in Disaster Preparedness
20. Spark Ignition Engine Control, Part -1
21. Spark Ignition Engine Control, Part- 2
22. Two Stroke Engines
23. Turbo Charging of Engines
24. NITTTR Chandigarh- A Pole Star in the Galaxy of Technical Education
25. Dynamic Spectrum Access-Realizing High Spectral Efficiencies, Part -1
26. Dynamic Spectrum Access-Realizing High Spectral Efficiencies, Part -2
27. Testing of High Voltage Transmission
28. Arya ARDOUNO Robot Assembly
29. Combat Robot
30. Humanoid Robotics Prototype
31. Neato Robot, (Vaccum Cleaner)
32. Robot Learners Kit
33. Technical Education - Quality Issues
34. Climate Change and Sustainable Development
35. Presentation on TURTLEBOT
36. Intelligent Controllers – Part 1

37. Intelligent Controllers – Part 2
38. ANN Application and Case Studies
39. Fuzzy Systems
40. Agilent Technologies, Part- 1
41. Agilent Technologies, Part- 2
42. Overview of Network Security
43. Amended Information Technology Act, Part -1
44. Creativity and Excellence
45. Non Verbal Communication
46. Soft Computing
47. Health Monitoring of Reinforced Concrete Buildings Using Vibration Instruments
48. Real World Applications of 8085 Microcontroller with PK, AVR, ARM on Proteus Simulator, Part- 1
49. Real World Applications of 8085 Microcontroller with PK, AVR, ARM on Proteus Simulator, Part- 2
50. Wind Power and Wind Turbines
51. Carbon Trading: An Emerging New Industry
52. Emerging Challenges of Cyber Crimes- Modus Operandi of Criminals
53. Cyber and Mobile Forensics –Tools and Applications
54. Actuators of Robotics
55. Environment Impact Assessment in India
56. Air Pollution and Control
57. Introduction to Communication Barrier
58. Wind Power Development and Changes

Annexure- II

A. PAPERS PUBLISHED BY THE INSTITUTE FACULTY

Sr. No.	Title of the Paper Published	Author(s) Name
	CIVIL ENGINEERING	
1.	Experimental Study of Core Diameter with Varying H/D Ratio on Concrete Strength. International Journal of Engineering Research and Technology, Vol. 2, issue 3, April, 2013.	SK Sharma
2.	Reliability Test of NDT Tests for Hardened Concrete Strength International Journal of Engineering Research & Technology, Vol. 2, issue 3 April, 2013.	SK Sharma
3.	Composites from Waste for Civil Engg. Application i-manager's journal of Material Science, Vol. I, No. 3, Oct-Dec 2013.	SK Sharma et .al
	COMPUTER SCIENCE	
4.	"Distributed Denial of Service (DDoS) Attacks Mitigation and Packet Filtering Techniques: A comprehensive review," International Journal of Advanced Research in Computer Science, Vol. 2, Issue 7, pp. 1135-1140, July 2013.	C Ramakrishna et.al
5.	"Mitigation of DDoS Attacks using Probability Based Distributed Hop Count Filtering and Round Trip Time," International Journal of Engineering Research and Technology, Vol. 2, No. 7, pp. 1135-1140, July 2013.	C Ramakrishna et.al
6.	"Analysis of Target Tracking Algorithm in Thermal Imagery", International Journal of Computer Applications, Volume 71 - Number 16, 2013	Maitreyee Dutta et.al
7.	"Modified Montgomery for RSA Cryptosystem", World Academy of Science, Engineering and Technology, International Journal of Information Science and Engineering, Vol.7, No.12, ISI indexed, 2013	Maitreyee Dutta et.al
8.	"An Analogy Between Static and Dynamic Social Network Based on Critical Parameters," Inderscience International Journal of Social Network Mining, Vol. 1, Issue 3/4, pp. 334-355, 2013.	C Ramakrishna et.al
9.	"Comparative Study of Live Virtual Machine Migration Techniques in Cloud" International Journal of Computer Applications, Published by Foundation of Computer Science, New York, USA, 84(14): ISBN: 973-93-80879-34-0, 19-25 December 2013,	Mala Kalra et.al
10.	"An Optimal Approach for an Energy Aware Resource Provisioning in Cloud Computing", International Journal of Advanced Scientific and Technical Research, 6(3):207-216, December 2013. ISSN 2249-9954, December, 2013	Mala Kalra et.al

Sr. No.	Title of the Paper Published	Author(s) Name
11.	"Carry Save Common Multiplicand Montgomery for RSA Cryptosystem", American Journal of Applied Science, Science Publications, Vol:11 No:5, 851-856, , Scopus indexed, 2014	Maitreyee Dutta et.al
12.	"Optimal Component Selection Based on Cohesion & Coupling for Component Based Software System under Build-or-Buy Scheme", Journal of Computational Science, Elsevier, 5(2): 233-242, ISSN: 1877-7503, March, 2014	Mala Kalra et.al
EDUCATIONAL TELEVISION CENTRE		
13.	"Metamaterial Loaded Antennas for Wireless Communication, LAP Lambert Academic Publishing, Germany, ISBN 978-3-659-22691-5. (International Book Chapter)	S. S. Pattnaik et al
14.	"Microwaves and Skin Cancer Detection LAP Lambert Academic Publishing, Germany, ISBN 978-3-659-51134-9. (International Book Chapter)	S. S. Pattnaik et al
15.	"Metamaterial Based Wearable Microstrip Patch Antennas," Chapter in the Book Titled: "Handbook of Research on Progressive Trends in Wireless Communications and Networking-Theory and Practice," Chapter 20, pp. 518-556, Information Science Reference (an imprint of IGI Global), USA, 2014. (International Book Chapter)	S. S. Pattnaik et al
16.	"Neighborhood Search Driven Accelerated Biogeography Based Optimization for Optimal Load Dispatch" IEEE trans. on SMC Part C, 2013.	S. S. Pattnaik et al
17.	"Swine Influenza Inspired Optimization Algorithm and Its Application to Multimodal Function Optimization and Noise Removal", International Journal of Artificial Intelligence Research, Vol.1, 13 pages, Sep.2013.	S. S. Pattnaik et al
18.	"A Cross-Stitch Geometry Based Multiband Fractal Antenna", Microwave and Optical Technology Letters, Vol. 56, no.3, pp.667-671, March 2014.	S. S. Pattnaik et al
19.	"Feed Point Optimization of Fractal Antenna Using GRNN-GA Hybrid Algorithm", Advances in Intelligent Systems and Computing (Springer), Vol. 236, pp. 25-30, March 2014.	S. S. Pattnaik et al
ELECTRONICS AND COMMUNICATION ENGINEERING		
20.	Reconfigurable Cost Effective Design of Digital Up Converter for Mobile Communication", International Journal of Computers and Communications, Volume 7, Issue 3, pp. 81-89, 2013.	Rajesh Mehra SS Pattnaik
21.	"Cost Analysis and Simulation of Decimator for Multirate Applications", International Journal of Computers & Technology, Volume 11, Issue 1, pp. 2175-2181, ISSN: 2277 -3061, September, 2013	Rajesh Mehra et.al

Sr. No.	Title of the Paper Published	Author(s) Name
22.	"FPGA Based Speed Efficient Decimator using Distributed Arithmetic Algorithm" , International Journal of Computer Applications, Volume 80, No.11, pp. 37-40, ISSN: 0975-8887, October, 2013.	Rajesh Mehra et.al
23.	"FPGA Based Area Efficient 64-Point FFT Design Using MAC Algorithm", International Journal of Electrical, Electronics and Telecommunication Engineering, Volume 44, Issue 2, pp. 1330-1337, October, 2013.	Rajesh Mehra et.al
24.	"FPGA Based Efficient Cholesky Decomposition for Solving Least Square Problem", International Journal of Advanced Computing (IJAC), Volume 47, Issue 1, pp. 1432-1435, ISSN No. 2051-0845. Impact Factor: 2.31, 2014.	Rajesh Mehra et.al
25.	"Area Estimation and Design Analysis of Gaussian Pulse Shaping Filter", International Journal of Soft Computing and Engineering (IJSCE), Volume-3, Issue-3, pp. 211-214, ISSN: 2231-2307, July, 2013.	Rajesh Mehra et.al
26.	"FPGA Based Gaussian Pulse Shaping Filter Using Distributed Arithmetic Algorithm", International Journal of Scientific & Engineering Research, Volume 4, Issue 8, pp. 711-715, August, 2013.	Rajesh Mehra et.al
27.	"Reconfigurable Area and Speed Efficient Decimator using DA Algorithm", International Journal of Electronics Communication and Computer Engineering, Volume 4, Issue 5, pp. 1514-1518, September, 2013.	Rajesh Mehra et.al
28.	"Matlab Simulation of Cordic based Adaptive Filtering for Noise Reduction using Sensors Aray", International Journal of Computer Applications, Volume 67, No.20, pp. 29-34, ISSN: 0975-8887, April, 2013.	Rajesh Mehra et.al
29.	"FPGA Based Adaptive Filter Design Using Least PTH-NORM Technique", International Journal of Soft Computing and Engineering (IJSCE), Volume3, Issue 2, pp. 208-211, ISSN: 2231-2307, May, 2013.	Rajesh Mehra et.al
30.	"FPGA Implementation of Area Efficient Adaptive Filter Using Array of Sensors" International Journal of Advances in Engineering & Technology, Vol. 6, Issue 2, pp. 639-647, ISSN: 2231-1963, May, 2013.	Rajesh Mehra et.al
31.	"Adaptive Filters Design and Analysis using Least Square and Least Pth Norm", International Journal of Advances in Engineering & Technology, Vol.6, Issue 2, pp. 836-841, ISSN: 2231-1963, May, 2013.	Rajesh Mehra et.al
32.	"4 Input Decimal Adder Sing 90 nm CMOS Technology", IOSR Journal of Engineering, Vol. 3, Issue 5, pp. 48-51, e-ISSN: 2250-3021, p-ISSN: 2278-8719, May 2013.	Rajesh Mehra et.al
33.	"Optimization of CMOS 8-bit Counter using SLA and Clock Gating Technique", International Journal of Recent Technology and Engineering (IJRTE), Volume-2, Issue-3, pp.1-7, ISSN: 2277-3878, July, 2013.	Rajesh Mehra et.al

Sr. No.	Title of the Paper Published	Author(s) Name
34.	"Advanced Testbench Design using Reusable Verification Component and OVM", International Journal of Computer Applications, Volume 73, Number 15, pp. 36-40, ISSN, No. 0975 – 8887, July, 2013.	Rajesh Mehra et.al
35.	"Verification IP for Interconnect Verification", International Journal of Advanced and Innovative Research, Volume 2, Issue 7, pp. 179-182, July, 2013.	Rajesh Mehra et.al
36.	"Low Power CMOS Counter using Clock Gated Flip-Flop", International Journal of Engineering and Advanced Technology, Volume 2, Issue 4, pp. 796-799, ISSN: 2249-8958, April, 2013.	Rajesh Mehra et.al
37.	"Comparative Analysis of FFT Algorithm for Different Window Techniques", International Journal of Science, Engineering and Technology Research (IJSETR), Volume 2, Issue 9, pp. 1691-1695, ISSN No. 2278-7798, September, 2013.	Rajesh Mehra et.al
38.	"Hyper Pipelined RISC Processor Implementation – A Review", International Journal of Engineering Research and Technology (IJERT), Volume 2 Issue 10, pp. 1440-1447, October, 2013.	Rajesh Mehra et.al
39.	"Design & Simulation of RISC Processor using Hyper Pipelining Technique", IOSR Journal of Mechanical and Civil Engineering, Volume 9 Issue 10, pp. 49-57, E-ISSN: 2278-1684, p-ISSN: 2320-334X, October, 2013.	Rajesh Mehra et.al
40.	"FPGA Implementation of Open RISC using Hyper Pipelining Technique", International Journal of Advanced Computing (IJAC), Volume 47, Issue 1, pp. 1436-1440, ISSN No. 2051-0845. Impact Factor: 2.31, 2014.	Rajesh Mehra et.al
41.	"Reconfigurable Design of Adaptive Radius Sphere Decoding for MIMO Systems", International Journal of Electronics Communication and Computer Engineering, Volume 4, Issue 5, pp. 1527-1531, October, 2013.	Rajesh Mehra et.al
42.	"Low Propagation Delay Design of 3 Bit Ripple Counter on 0.12 Micron Technology", International Journal of Research in Computer Applications and Robotics, Vol. 1, No.2, pp. 7-15, March-April, 2013.	Rajesh Mehra et.al
43.	"CMOS Design and Low Power Full Adder using 0.12 Micron Technology", International Journal of Research in Computer Applications and Robotics, Vol. 1, No.2, pp. 1-6, March-April, 2013.	Rajesh Mehra et.al
44.	"Adaptive Filter for ECG Noise Reduction Using RLS Algorithm", International Journal of Engineering Research and Applications" Volume 3, Issue 6, pp 01-05, ISSN : 2248-9622, December, 2013.	Rajesh Mehra et.al
45.	"Design Analysis of IIR Filter for Power Line Interference Reduction in ECG Signals" International Journal of Engineering Research and Applications" Volume 3, Issue 6, pp 01-05, ISSN : 2248-9622, December, 2013.	Rajesh Mehra et.al

Sr. No.	Title of the Paper Published	Author(s) Name
46.	"Discrete Wavelet Transform using Circular Convolution", International Journal of Scientific Research Engineering & Technology (IJSRET), Vol.2, Issue 6, pp.379-384, September, 2013.	Rajesh Mehra et.al
47.	"Design and Analysis of Adaptive FIR Filter for Different Step Size", International Journal of Latest Trends in Engineering and Technology: ISSN 2278-621X Vol.3, Issue 1, pp.111-117, September, 2013.	Rajesh Mehra et.al
48.	"Effect of Windowing Methods on Performance of FIR Filter Design", International Journal of Scientific Research Engineering and Technology (IJSRET), Vol.-2 Issue-6 , pp. 385-388, September, 2013.	Rajesh Mehra et.al
49.	"Performance Analysis of LMS & NLMS Algorithms for Noise Cancellation", International Journal of Scientific Research Engineering and Technology (IJSRET), Vol. 2, Issue 6, pp 366-369, September, 2013.	Rajesh Mehra et.al
50.	"Power Spectrum Estimation using Welch Method for Various Window Techniques", International Journal of Scientific Research Engineering & Technology (IJSRET) , Vol. 2, Issue. 6, pp. 389-392, September 2013.	Rajesh Mehra et.al
51.	"IIR Filter Design and Analysis using Notch and Comb Filter", International Journal of Scientific Research Engineering and Technology (IJSRET).Vol. 2, Issue 6, pp. 358-361, September 2013.	Rajesh Mehra et.al
52.	"Cyclic Division Algebra Based Novel STBC For MIMO-OFDM Systems", International Journal of Scientific Research Engineering & Technology (IJSRET), Vol. 2, Issue 9, pp. 537-540, December, 2013.	Rajesh Mehra et.al
53.	"Simulink Based Design Simulations Of Band Pass FIR Filter", International Journal of Research in Engineering and Technology, Vol. 03, Issue: 02, pp. 157-161, February, 2014.	Rajesh Mehra et.al
54.	"Design and Simulation of Low Pass IIR Filter For ECG Interference Reduction" , International Journal of Engineering Research and Technology(IJERT), Vol.3, Issue No. 3, pp. 1322-1326, March 2014.	Rajesh Mehra et.al
55.	"Detection of Noise in High Pass Butterworth IIR Filter using MATLAB", International Journal of Engineering Research and Technology(IJERT), Vol.3 Issue No. 2 , pp. 1232- 1235, February 2014.	Rajesh Mehra et.al
56.	"Design and Analysis of Band Pass FIR Filter using Different Window Techniques", International Journal of Engineering Research and Technology (IJERT), Vol.3, Issue No. 2, pp. 506-511, February 2014.	Rajesh Mehra et.al
57.	"Design and Analysis of Conventional and Ratioed CMOS Logic Circuit", IOSR Journal of VLSI and Signal Processing (IOSR-JVSP), Vol. 2, No. 2, pp.25-29, April 2013.	Rajesh Mehra et.al

Sr. No.	Title of the Paper Published	Author(s) Name
58.	"Dissipated Power Reduction in Domino Circuit", IOSR journal of VLSI and Signal Processing (IOSRJVSP), Vol. 2, Issue 3, pp. 17-21, May- June, 2013.	Rajesh Mehra et.al
59.	"Reduction of Unwanted Switching Through Skewing The Circuit", IOSR Journal of VLSI and Signal Processing (IOSRJVSP), Vol. 2, Issue 3, pp. 40-45, May – June, 2013.	Rajesh Mehra et.al
60.	"Design a Low Power Half Subtractor Using .90 μ m CMOS Technology", IOSR Journal of VLSI and Signal Processing, Vol. 2, Issue 3, pp.51-56, June, 2013.	Rajesh Mehra et.al
61.	"Area Efficient Turbo Encoder for Wireless Applications on FPGA", International Journal of Electronics Communication and Computer Engineering, Vol.5, Issue 2, pp.426-430, March, 2014 .	Rajesh Mehra et.al
62.	"Design and Simulation of Turbo Codec for Error Reduction Using MSOVA Algorithm", International Journal of Electronics Communication and Computer Engineering, Vol.4, Issue 5, pp.1535-1540, September, 2013.	Rajesh Mehra et.al
63.	"Re-configurable Optimized Area Turbo Decoder For Wireless Applications", IOSR Journal of Electronics and Communication Engineering, , Vol.9, Issue 2, pp.68-73, March 2014.	Rajesh Mehra et.al
64.	"FPGA Based Area Efficient Turbo Decoder for Wireless Communication", International Journal of Engineering Research and Applications, Vol.3, Issue 5, pp.1899-1904, September-October, 2013.	Rajesh Mehra et.al
65.	"4-Input Decimal Adder Using 90nm CMOS Technology", IOSR Journal of Engineering, Vol.3, Issue 5, pp.48-51, May 2013.	Rajesh Mehra et.al
66.	"Enhancing the Lifetime of LEACH Protocol using NNA for WSN", International Journal of Computer Trends and Technology (IJCTT), Vol. 4, Issue 4, April 2013.	Kanika Sharma et.al
67.	"Improvement in QoS using Sink Mobility in WSN", International Journal of Computer Trends and Technology (IJCTT), Vol. 4 Issue 4, April 2013.	Kanika Sharma et.al
68.	"Grid Based Multipath Energy Aware Routing Protocol for WSNs", International Journal of Computer Trends and Technology (IJCTT), Vol. 4 Issue 4, April 2013.	Kanika Sharma et.al
69.	"Network Topologies in Wireless Sensor Networks: A Review", International Journal of Electronics and Communication Technology (IJECT), Vol. 4 Issue 3, April- June 2013.	Kanika Sharma et.al
70.	"Zone Divisional Network with Double Cluster Head for Effective Communication in WSN", International Journal of Computer Trends and Technology (IJCTT), Vol.4 Issue 5, May 2013.	Kanika Sharma et.al
71.	"Design of Point-in-Triangulation Algorithm Based on Matrix and Estimation Approach", International Journal of Electronics and Communication Technology, Vol.4, Issue4, October-December, 2013.	Kanika Sharma et.al

Sr. No.	Title of the Paper Published	Author(s) Name
72.	A Survey of Localization Algorithms in Wireless Sensor Networks”, International Journal of Electronics and Communication Technology, Vol.4, Issue4, October-December, 2013.	Kanika Sharma et.al
73.	Qualitative Evaluation of Routing Protocols of MANET in Wireless Sensor Networks”, International Journal of Computer and Communication Technology, Vol. 4 Issue 2, 2013.	Kanika Sharma et.al
74.	Design and Simulation of Pipelined Double Precision Floating Point Adder/Subtract or and Multiplier using Verilog, International Journal of Engineering Research and Technology, Vol.3, Issue 1, January 2014.	Kanika Sharma et.al
75.	Design and Implementation of Area Efficient Single Precision Floating Point Unit”, IOSR Journal of Electronics and Communication Engineering, Vol. 9, Issue 1, January 2014.	Kanika Sharma et.al
76.	“A Compact Planar Inverted F–antenna with Slotted Ground Plane”, International Journal of Electronics & Communication Technology Vol. 4, Issue 2, pp.399-401, April - June 2013.	Garima Saini et.al
77.	“Peak-to-Average Power Ratio Analysis of SCFDMA Signal by Hybrid Technique”, International Journal of Computer Applications, Vol.69, No.15, pp.26-29, May 2013.	Garima Saini et.al
78.	“Reduction of PAPR Value Using Combined RS Coding And μ - Law Companding in OFDM System”, International Journal of Engineering Research & Technology, Vol. 2 Issue 6, pp.2921-2924, June – 2013.	Garima Saini et.al
79.	“Comparison of Fixed and Mobile Wimax Systems using Hybrid DSI-PTS Technique for PAPR Reduction”, International Journal of Computer Applications, Volume 73 – No.22, pp. 29-32, July 2013.	Garima Saini et.al
80.	“PAPR Reduction Using Low Complexity Partial Transmit Sequence Scheme for Scalable OFDM System”, International Journal of Electronics Communication and Computer Technology, Volume 3, Issue 4, pp. 446-449, July 2013.	Garima Saini et.al
81.	“A Multiband Pifa with Slotted Ground Plane For Personal Communication Handheld Devices”, International Journal of Engineering Research and Development Volume 7, Issue 11, pp. 70-74, July 2013.	Garima Saini et.al
82.	“ICI Cancellation using Zero-padded Conjugate Transmission with Adaptive Receiver for OFDM Systems”, International Journal of Soft Computing and Engineering, Volume-3, Issue-3,pp(s):278-280, July-2013.	Garima Saini et.al
83.	“Development of Zero-padded Conjugate Transmission with adaptive Receiver for ICI cancellation”, International Journal of Science and Research, Volume-2, Issue-7, pp(s):302-305, July-2013.	Garima Saini et.al

Sr. No.	Title of the Paper Published	Author(s) Name
84.	"ICI Cancellation using Modified Repeated Correlative Coding for OFDM System", International Journal of Electronics and Communication Technology, Vol. 4, No. 3, pp. 24-26, July 2013.	Garima Saini et.al
85.	"Low Complexity PTS for PAPR Reduction in OFDM", International Journal of Advance Research in Science and Engineering, Vol. 2, Issue 8, pp. 67-78, ISSN:2319-8354, August 2013.	Garima Saini et.al
86.	"PAPR Reduction of OFDM System using Proposed PTS", International Journal of Engineering research and Technology, Vol. 2, Issue 8, pp. 1452-1460, ISSN:2278-0181, August 2013.	Garima Saini et.al
87.	"An Efficient Linear Precoding Scheme based on Block Diagonalization for Multiuser MIMO Downlink System", International Journal of Engineering research and Technology, Vol. 2, Issue 10, pp. 2858-2862, October- 2013.	Garima Saini et.al
88.	"Non Linear Companding Transform for Peak to Average Power Ratio Reduction in OFDM System", International Journal of Scientific & Engineering Research, Volume 5, Issue 2, pp. 1627-1630, February-2014.	Garima Saini et.al
89.	"Design of Microstrip Array Antenna for WiMAX and Ultra-Wideband Applications", International Journal of Engineering Research & Technology, Vol. 3, Issue 2, pp. 1562-1565, February – 2014.	Garima Saini et.al
90.	"Microstrip Array Antenna with Left Handed Metamaterial at C-Band", International Journal of Engineering and Advanced Technology, Volume-3, Issue-3, pp. 377-380, February 2014.	Garima Saini et.al
91.	"BER Performance of MU-MIMO System using Dirty Paper Coding", International Journal of Electrical & Electronics Engineering, Vol. 1, Issue 1, pp. 26-30, February 2014.	Garima Saini et.al
92.	"Capacity Improvement in Multi-User MIMO System using Dirty Paper Coding", International Journal on Recent and Innovation Trends in Computing and Communication, Volume: 2, Issue: 2, pp. 212 – 215, February 2014.	Garima Saini et.al
93.	"A Survey of Estimation of Carrier Frequency Offset for OFDM Systems", International Journal of Recent Development in Engineering and Technology, Volume 2, Issue 3, pp. 102-104, March 2014.	Garima Saini et.al
EDUCATION AND EDUCATIONAL MANAGEMENT		
94.	"Applications of Six Sigma in Electronics Industry – A Case Study", International Journal of Engineering Science and Innovative Technology, Vol.2, No.3, ISSN 2319 5967, May, 2013	Sunil Dutt et.al
95.	"Organizational Structure, Responsibility, Motivation Level and Job Satisfaction of Self-financing Engineering Colleges by using Mathematical Modelling", International Journal of Research in Commerce, IT and Management, Vol.3, No. 9, ISSN 2231 5756, September, 2013.	Sunil Dutt et.al

Sr. No.	Title of the Paper Published	Author(s) Name
96.	"Kaizen – A Way of Productivity Improvement in Electronic Industry – A Case Study", Journal of Engineering and Technology Education, Vol. 7, No. 1, ISSN 2229 631X, January-June, 2013.	Sunil Dutt et.al
97.	Effectiveness of Computer Assisted Instruction in Acquisition of Biological Concepts", The Educational Beacon – Research Journal, Vol.3, No. 1, p188-200, ISSN 2349 4154, January, 2014	Sunil Dutt et.al
ELECTRICAL ENGINEERING		
98.	"Comparative Analysis of Speed Control of DC Motor using AI Techniques", International Journal of Engineering Research and Applications, Vol.3, Issue 3, Pages. 1137-1146, May-June, 2013.	Lini Mathew et.al
99.	"Solar Maximum Power Point Tracking System and its Application to Greenhouse", International Journal of Advanced Research In Electrical, Electronics And Instrumentation Engineering, Volume 2, Issue 6, June, 2013.	S. Chatterji et.al
100.	"A Novel Software of Home Energy Management System based on LabVIEW", International Journal of Innovative Research and Studies, Vol.2, Issue 7, Pages 446-452, July 2013.	Lini Mathew et.al
101.	"A Novel Low Cost Highly Efficient DC Motor Speed Control Using NI LabVIEW", International Journal of Research in Electrical & Electronics Engineering, pp. 39-43, Volume-1, Issue-1, July – September, 2013	S Chatterji et.al
102.	"Matlab Based Simulation of Components of Small Hydro-Power Plants", VSRD International Journal of Electrical, Electronics and Communication Engineering, Vol.III Issue VIII pp 371-378, August 2013.	S. Chatterji et.al
103.	"Fuzzy Logic Based Solar Tracking System By Estimation of Solar Radiation", International Journal of Engineering Research and Technology (IJCIT), Vol. 2, issue 8, pp.906-911 August, 2013.	S Chatterji et.al
104.	"Design and Simulation of Intelligent Control MPPT Technique for PV Module Using MATLAB/ SIMSCAPE", International Journal of Advanced Research in Electrical, Electronics and Instrumentation Engineering, Vol. 2, Issue 9, September 2013.	Lini Mathew et.al
105.	"FPGA Implementation of Fuzzy Controlled Quasi Double Boost Converter", International Journal of Advanced Research in Electrical, Electronics and Instrumentation Engineering, Vol. 2, Issue 9, September 2013.	Lini Mathew et.al

Sr. No.	Title of the Paper Published	Author(s) Name
106.	"Comparative Analysis of Multiple-pulse VSC based STATCOM for Voltage Dip Mitigation", International Journal of Scientific and Research Publications, Vol.3, Issue 9, Pages. 18-25, September, 2013.	Lini Mathew et.al
107.	"Modeling of the 2.4 kW Residential Fuel Cell based Power Generation System", International Journal of Advanced Research in Computer Science and Engineering, Vol.3, Issue 9, Pages 1273-1281, September 2013.	Lini Mathew et.al
108.	"Analysis of Barriers to Implement Solar Power Installations in India Using Interpretive Structural Modeling Technique", Elsevier Journal of Renewable and Sustainable Energy Reviews, Volume 27, Pages 163–174, November 2013.	S. Chatterji et.al
109.	"Maximum Power Point Tracking Based Photo-Voltaic Powered 11-Level Cascade Multilevel Inverter", Journal of Engineering Science & Management Education, Vol. 6 Issue IV, October – December 2013.	Shimi.S.L et.al
110.	"Elasticity of Energy Consumption in India", International Journal of Research in Electrical & Electronics Engineering, Volume 1, Issue 2, pp. 19-24, October-December, 2013	Shimi.S.L et.al
111.	"Enhanced Antilock Braking System using Fuzzy Logic Road Detector", International Journal of Research in Electrical & Electronics Engineering Volume 1, Issue 2, pp. 47-54, October-December, 2013.	Shimi S.L et.al
112.	"Improved Maximum Power Point Tracking for Solar PV Module using ANFIS", International Journal Of Current Engineering And Technology, Vol.3,No.5, December-2013.	Shimi.S.L et.al
113.	"Techno-economic Analysis and Modeling of Stand-alone Versus Grid-connected Small Hydro-power Systems- a review of literature", International Journal of Sustainable Energy, Volume 32, Issue 1, 2013, pp 1-17.	S. Chatterji et.al
114.	"Reduction of Total Harmonics Distortion in Four Switch Three Phase Inverter Fed Induction Motor Drive", International Journal of Research in Electrical & Electronics Engineering, ISSN 2347-5439, Volume 1, Issue 2, pp. 82 – 91, October-December, 2013.	Shimi S. L et.al
115.	"Hybrid Active Power Filter and Power Conditioning - An Overview", International Journal of Research in Electronics and Communication Technology, Volume-2, Issue-1, January-March, 2014, pp. 06-11, January-March, 2014.	S Chatterji et.al
116.	"A Novel 4 Switch, 3 Phase Inverter Controlled by Different Modulation Techniques-A Comparison", International Journal of Research in Electrical & Electronics Engineering (IJREEE), Volume No.2 Issue No.1, January-March, 2014.	S. Chatterji et.al
117.	"Design and Implementation of ANFIS based MPPT Scheme with Open Loop Boost Converter for Solar PV Module", International Journal of Advanced Research in Electrical, Electronics and Instrumentation Engineering, Vol. 3, Issue 1, January 2014.	Shimi S.L. et.al

Sr. No.	Title of the Paper Published	Author(s) Name
118.	"Comparative Study of dc to dc Converters Via Simpower electronics Fuel Cell Stack", IOSR Journal of Engineering (IOSRJEN), Vol. 04, Issue 01 (January. 2014), PP 13-21 January,2014.	Lini Mathew et.al
119.	"Online Thermal Protection, RPM Measurement and Control of Pmdc Motor Using Labview", International Journal of Engineering Research, Vol.2. Issue.1 2014, Page No:72-80 February , 2014.	S. Chatterji et.al
120.	"Design of Genetic Fuzzy Logic based Hybrid Temperature Controller and comparison with other Controllers", International Journal of Engineering Research & Technology, Vol. 3, No.2, February, 2014.	Ritula Thakur S. Chatterji
121.	"Energy Audit-A Case Study, International Journal of Emerging Technology and Advanced Engineering, ISSN 2250-2459 (online), Volume 4, special issue I, pp 73-78, February 2014.	S. Chatterji et.al
122.	"A Prototype Home Energy Management System for Residential Load Control Based on Price Prediction", International Journal of Scientific Research in Computer Science Applications and Management Studies, Vol.3, Issue 2, March 2014.	Lini Mathew et.al
123.	"Direct Torque Neuro Fuzzy Controller (DTNFC) with 3 Level PWM Inverter for Induction Motor", International Journal of Digital Application and Contemporary Research, Volume 2, Issue 8, March, 2014.	Shimi S.L et.al
124.	"Real Time Simulation of Artificial Intelligence (AI) based MPPT of a Photo-Voltaic Array using Dspace", International Journal of Engineering Research and Applications - ISSN : 2248-9622 National Conference on Advances in Engineering and Technology(AET-2014), 29 March 2014.	Shimi S. L et.al
125.	"Design and Implementation of Linear Quadratic Regulator Based Maximum Power Point Tracker for Solar Photo-Voltaic system", SERCSC- International Journal of Hybrid Information Technology, Vol.7, No.1 (2014), ISSN: 1738-9968, pp.167-182	S. Chatterji et.al
MECHANICAL ENGINEERING		
126.	"Multi-objective Optimization of Electrical Discharge Machining Process Using a Hybrid Method ", Journal of Materials and Manufacturing Processes, Vol. 28, pp. 348-354, April, 2013.	SS Banwait
127.	"A Brief Review of Die Sinking Electrical Discharging Machining Process towards Automation", American Journal of Mechanical Engineering, Vol. 1, No.2, pp 43-49, April, 2013.	SS Banwait
128.	"Chemical Mechanical Polishing by Colloidal Silica Slurry", International Journal of Engineering Research and Applications (ISSN: 2248-9622), Vol. 3, Issue 3, May-June, 2013	SS Dhami et.al

Sr. No.	Title of the Paper Published	Author(s) Name
129.	"Selection of Filler Wire for Weld Joint of Aluminium Conductors in Power Bus Ducts", Journal of Engineering and Technology Education, Vol. 7, No.1, pp 27-30, January-June, 2013	SS Dhami et.al
130.	"Material Removal by Chemical Machining Polishing- A Review", International Journal of Advancement in Research and Technology Vol. 1, Issue 5, October, 2013.	SS Dhami et.al
131.	"Development of RSM Model in Surface Modification of EN-31 Die Steel Material Using Copper-Tungsten Powder Metallurgy Semi-Sintered Electrodes by EDM Process", American Journal of Mechanical Engineering, Vol. 1, No.6, pp155-160, 29 November, 2013	SS Banwait
132.	"Study of Effects of Variation in Kinetic Energy of Working Fluids on Effectiveness of Counter-Flow Heat Exchangers", Journal of Engineering and Technology Education, Vol. 7, No.2, pp 08-18, July-December, 2013.	SS Dhami et.al
MEDIA AND CONTINUING EDUCATION CENTRE		
133.	Enhancing Quality of Higher Education through Comprehensive Continuous Evaluation", International Journal for Cross Disciplinary Subjects in Education, London, UK, 2013	Rakesh Wats et.al
RURAL DEVELOPMENT		
134.	"Skill for Rural Youth in India: Issues and Challenges", Journal of Engineering and Technology Education, Vol. 7, No.2, July-December, 2013.	JS Saini BS Pabla MP Poonia

B. PAPERS PRESENTED/ACCEPTED AT IMPORTANT CONFERENCES AND SEMINARS

Sr. No.	Title of the Paper Presented/Accepted	Author(s) Name
APPLIED SCIENCE		
1.	"AFM WORKSHOP: AN IMMENSE TOOL IN NANOTECHNOLOGY – PRACTICAL EXPERIENCES AT NITTTT, CHANDIGARH", 8 th Chandigarh Congress (CHASCON-2014), Panjab University, Chandigarh 26-28 February, 2014	BC Choudhary et.al
CENTRE FOR PHYSICALLY CHALLENGED PERSONS		
2.	"CSR-CSO Bridge – Social Innovations through Collaboration – A Lever for Growth and Sustainability", paper presented in a seminar organised by CII Chandigarh, 23 July, 2013.	JS Saini

Sr. No.	Title of the Paper Presented/Accepted	Author(s) Name
	CIVIL ENGINEERING	
3.	"Segmental Bridges: An Innovation in Bridge Construction", International Conference on Trends and Challenges in concrete Structures at Ghaziabad, 19-21 December, 2013.	Himmi Gupta et.al
4.	"Assessment of Seismic Vulnerability of Housing Complex and Medicare Centre in CSIO, Sector 30, Chandigarh", International Conference on Trends and Challenges in concrete structures at Ghaziabad, NCR Delhi 19-21 December, 2013.	SK Sharma et.al
5.	"Adapting to Climate Changes: Towards Sustainable Infrastructure Development", National Conference on "Sustainable Infrastructure Development (NCSID) NITTTR, Chandigarh, 13-14 March, 2014.	Himmi Gupta
6.	"Performance Studies of Desnsified Small Particles Based Composite Frames", National Conference on "Sustainable Infrastructure Development (NCSID) NITTTR, Chandigarh, 13-14 March, 2014.	SK Sharma et.al
7.	"Cost-effective Roof Supporting System for Huts through Green Growth", National Conference on "Sustainable Infrastructure Development (NCSID) NITTTR, Chandigarh, 13-14 March, 2014.	SK Sharma et.al
8.	"Planning of a Multipurpose Reservoir System using System Analysis Techniques", National Conference on "Sustainable Infrastructure Development (NCSID) NITTTR, Chandigarh, 13-14 March, 2014.	SK Sharma et.al
9.	"Consistency and Setting Behaviour of Fly Ash-based Geopolymer Cement", National Conference on "Sustainable Infrastructure Development (NCSID) NITTTR, Chandigarh, 13-14 March, 2014.	SK Sharma et.al
10.	"Exploring Challenges in Development of Sustainable Construction", National Conference on "Sustainable Infrastructure Development (NCSID) NITTTR, Chandigarh, 13-14 March, 2014.	SK Sharma et.al
11.	"Assessment of Building Energy Performance of a Building with Cool Roof Simulation Tool-A Case Study in Chandigarh", National Conference on "Sustainable Infrastructure Development (NCSID) NITTTR, Chandigarh, 13-14 March, 2014.	SK Sharma et.al
12.	"Accelerated Bridge Construction- The SPMT", National Conference on "Sustainable Infrastructure Development (NCSID) NITTTR, Chandigarh, 13-14 March, 2014.	Himmi Gupta et.al
13.	"Industrial Wastewater Treatment", National Conference on Advancements in Construction Technology and Management NCACTAM_2013 Indo Global Colleges Mohali (Punjab) India 17 April, 2013.	SK Sharma et.al
14.	"Industrial Wastewater Treatment", 6 th International Congress of Environmental Research ICER-2013 at Indo Global Colleges Mohali (Punjab) India, 19-21 December.	SK Sharma et.al

Sr. No.	Title of the Paper Presented/Accepted	Author(s) Name
	COMPUTER SCIENCE	
15.	"Multi-criteria Optimization Approach for Component Selection in COTS Based Software System", International Conference on Leveraging Operations and IT for Sustainable Development (ICOIT 2013), CMR Group of Institutions, Bangalore, 24-25 April 2013.	Mala Kalra et.al
16.	"A Fast Approach to Determine Co-primarily of Two Positive Integer Numbers," IEEE Conference on Information Management in the Knowledge Economy, Chitkara University, 19-20 December 2013.	C Ramakrishna et.al
17.	"ACOF: Autonomous Computation Offloading Framework for Android using Cloud", International Conference on Information Management in the Knowledge Economy, Chitkara, IEEE, ISBN: 978-81-920249-7-4, 2013.	Mala Kalra et.al
18.	"Framework for Energy Saving in the Android Smartphone", International Conference on Information Management in the Knowledge Economy, Chitkara, IEEE, ISBN: 978-81-920249-7-4, 2013.	Mala Kalra et.al
19.	"Portability between Eucalyptus and OpenStack- A Case Study of the Challenges involved in Cloud Migration", International Conference on Green Computing and Technology (ISBN: 973-93-80877-93-2h) held at SIES Graduate School of Technology, Nerul, Navi Mumbai.	Maitreyee Dutta et.al
20.	"Defending Network System against IP Spoofing Based Distributed DoS Attacks using DPHCF-RTT Packet Filtering Technique," IEEE International Conference on Issues and Challenges in Intelligent Computing Techniques (ICICT), Ghaziabad, pp. 206 – 209, 07-08 February, 2014.	C Ramakrishna et.al
21.	"Quality of Experience of RIA's: A Comprehensive Subjective Evaluation," IEEE International Conference on Issues and Challenges in Intelligent Computing Techniques (ICICT), Ghaziabad, 07-08 February, 2014.	C Ramakrishna et.al
22.	"A Hybrid Localization Scheme for Underwater Wireless Sensor Networks," IEEE International Conference on Issues and Challenges in Intelligent Computing Techniques (ICICT), Ghaziabad, pp. 579-582, 07-08 February, 2014.	C Ramakrishna et.al
23.	"Reliable RASA Scheduling Algorithm for Grid Environment," 2nd IEEE International Conference on Computer Communication and Systems, Chennai, pp. 147-150, 20-21 February, 2014.	C Ramakrishna et.al
24.	"A Comparative Evaluation of Offline Signature Verification using Image Processing Artificial Neural Network Approach" International Conference on Computer Network and Information Technology NITTTR Chandigarh, 20-21 March, 2014.	Maitreyee Dutta et.al

Sr. No.	Title of the Paper Presented/Accepted	Author(s) Name
25.	"Performance Comparison and Reducing of Blocking Artifact using Local Averaging of Block Boundary", International Conference on Computer Network and Information Technology, NITTTR Chandigarh, 20-21 March, 2014.	Maitreyee Dutta et.al
26.	"Image Restoration Techniques in Image Processing: A Review", International Conference on Computer Network and Information Technology NITTTR Chandigarh, 20-21 March, 2014.	Maitreyee Dutta et.al
27.	"A Novel Way of Assigning Software Bug Priority using Classification and Clustering", International Conference on Computer Network and Information Technology NITTTR Chandigarh, 20-21 March, 2014.	Maitreyee Dutta et.al
28.	"Service Broker Policy For Service Selection In Cloud Environment: A Survey", International Conference on Computer Network and Information Technology NITTTR Chandigarh, 20-21 March, 2014.	Maitreyee Dutta et.al
29.	"Phishing Detection: Techniques and Challenges", Proceedings of International Conference on Computer Networks and Information Technology, NITTTR, Chandigarh, pp 247-253, ISBN: 978-93-83842-27-8, March, 2014.	Mala Kalra et.al
30.	"A Comparative Study of Task Scheduling based on Genetic Algorithm in Cloud Computing", Proceedings of International Conference on Computer Networks and Information Technology, NITTTR, Chandigarh, pp 325-332, ISBN: 978-93-83842-27-8, March, 2014.	Mala Kalra et.al
31.	"Comparative Study of Various Load Balancing Techniques In Cloud", Proceedings of International Conference on Computer Networks and Information Technology, NITTTR, Chandigarh, pp 368-377, ISBN: 978-93-83842-27-8, March, 2014.	Mala Kalra et.al
32.	"Focused Crawling Approaches For Relevant Prediction of URLs", Proceedings of International Conference on Computer Networks and Information Technology, NITTTR, Chandigarh, pp 449-457, ISBN: 978-93-83842-27-8, March, 2014.	Mala Kalra et.al
33.	"Dissection of Big Data", Proceedings of International Conference on Computer Networks and Information Technology, NITTTR, Chandigarh, pp 458-469, ISBN: 978-93-83842-27-8, March, 2014.	Mala Kalra et.al
34.	"Predicting User's Browsing Behaviour By Integrating Session Distance Measure And Markov Model", Proceedings of International Conference on Computer Networks and Information Technology, NITTTR, Chandigarh, pp 470-480, March 2014, ISBN: 978-93-83842-27-8, March, 2014.	Mala Kalra et.al
35.	"A Review on Distributed Group Key Management Schemes using Hierarchical Approach," International Conference on Computer Networks and Information Technology (ICCNIT), NITTTR Chandigarh, pp. 302-308, 20-21 March, 2014.	C Ramakrishna et.al

Sr. No.	Title of the Paper Presented/Accepted	Author(s) Name
36.	"SEEDS: Scalable Energy Efficient Deployment Scheme for Homogeneous Wireless Sensor Networks," IEEE International Conference on Issues and Challenges in Intelligent Computing Techniques (ICICT), Ghaziabad, 07-08 February, 2014.	C Ramakrishna et.al
37.	"A Survey on Token Based Distributed Mutual Exclusion Protocols in MANETs," International Conference on Computer Networks and Information Technology (ICCNIT), NITTTR Chandigarh, pp. 338-346, 20-21 March 2014.	C Ramakrishna et.al
38.	"A Survey on Permission Based Distributed Mutual Exclusion Algorithms in Mobile Adhoc Networks," International Conference on Computer Networks and Information Technology (ICCNIT), NITTTR Chandigarh, pp. 81-97, 20-21 March 2014.	C Ramakrishna et.al
39.	"A Survey on Secure Ranked Keyword Search Over Outsourced Encrypted Cloud Data," International Conference on Computer Networks and Information Technology (ICCNIT), NITTTR Chandigarh, pp.347-357, 20-21 March 2014.	C Ramakrishna et.al
CURRICULUM DEVELOPMENT CENTRE		
40.	"Concept, Issues and Challenges of Social Entrepreneurship," 14 th International Conference on Advanced and Challenges in Global Business, Management, Economic, Tourism and Information Technology, Jaipur, 01-02 February, 2014.	PK Singla
EDUCATIONAL TELEVISION CENTRE		
41.	"Design of A Miniaturized Tapered Crown Rectangular Fractal Antenna for ISM Band", IEEE India Antenna Week 2013, Aurangabad, India, Pp.31-32, 03 – 07 June, 2013.	S. S. Pattnaik et al
42.	"Polypropylene Based Metamaterial Integrated Wearable Microstrip Patch Antenna", IEEE India Antenna Week 2013, Aurangabad, India, 03 – 07 June, 2013.	S. S. Pattnaik et al
43.	"Polyester Based Wearable Microstrip Patch Antenna," IEEE Applied Electromagnetic Conference (AEMC2013), Bhubaneswar, India, 18-20 December, 2013.	S. S. Pattnaik et al
44.	"Wearable Microstrip Patch Antennas: A Review", Elsevier Proceedings of 3 rd International Conference on Recent Trends in Engineering & Technology (ICRTET'2014), pp.311-215, 28-30 March 2014.	S. S. Pattnaik et al
45.	"Metamaterial Based Microstrip Patch Antennas: A Review", Elsevier Proceedings of 3 rd International Conference on Recent Trends in Engineering & Technology (ICRTET'2014), , pp.403-407, 28-30 March, 2014	S. S. Pattnaik et al

Sr. No.	Title of the Paper Presented/Accepted	Author(s) Name
ELECTRONICS AND COMMUNICATION ENGINEERING		
46.	"Review of Use of PTS Scheme for Reduction of PAPR in OFDM Systems", National Conference on Advancements in Solid State Devices & circuits, Jointly organised by IGC & IETE, Paper ID: ASSDC-13-IG-08, pp. 35-38, April 2013.	Garima Saini et.al
47.	"A Hybrid Approach to Improve BER in OFDM System", International Conference on Electronics, Communication and Information Technology", October 2013.	Garima Saini et.al
48.	"Reconfigurable Digital up Converter for Multirate Systems", Proceedings of the Second International Conference on Applied and Computational Mathematics, pp. 19-22, Vouliagmeni, Athens, Greece, May 2013.	Rajesh Mehra et.al
49.	"FPGA Based FIR Filter using Parallel Pipelined Structure", International Conference on Signal Processing, pp. 311-315, Baltimore, MD, USA, September 2013.	Rajesh Mehra SBL Sachan
50.	"Implementation of Sphere Decoder with Early Termination using FPGA" IEEE International Conference on Signal Processing and Communications (ICSC), pp. 4-8, December 2013.	Rajesh Mehra et.al
51.	"Analysis of QR Decomposition for MIMO Systems", IEEE International Conference on Electronic Systems, Signal Processing and Computing Technologies (ICESC), pp. 69-73, January 2014.	Rajesh Mehra et.al
52.	"Face Recognition using Gabor Wavelets for Image Processing Applications", 4th International Conference on Emerging Trends in Engineering & Technology- (IETET 2013), pp. 201-206, 25-27 October, 2013.	Rajesh Mehra et.al
53.	"Cost Analysis of Digital FIR Filter Using Different Window Techniques", ITR-International Conference on Electrical Electronics and Data Communication (ITR-ICEEDC-2013), pp.45-49, 18 August, 2013.	Rajesh Mehra et.al
54.	"Equiripple Techniques based Resource and Performance Analysis of FIR Filters", 4th International Conference on Emerging Trends in Engineering and Technology- (IETET 2013), pp.-83-89, October, 2013.	Rajesh Mehra et.al
55.	"Resource Estimation for Design of IIR Filters using Polyphase Decomposition", 4th International Conference on Emerging Trends in Engineering and Technology, pp. 26-31, October, 2013.	Rajesh Mehra et.al
56.	"FPGA based Design of TBCC Harq Encoder and Decoder for Wireless Communication", International Conference on Communications, Networking and Signal Processing, pp.308-311, September, 2013.	Rajesh Mehra et.al
57.	"Full Adder Design Analysis for Different Logic Styles on 45nm Channel Length", 2 nd International e-Conference on Emerging Trends in Technology, pp. 95-99, February, 2014.	Rajesh Mehra et.al

Sr. No.	Title of the Paper Presented/Accepted	Author(s) Name
58.	"Image Restoration using Modified Lucy Richardson Algorithm in the Presence of Gaussian and Motion Blur ", Global Conference on Recent Trends in Electronic Communication Engineering, Power and Control (ECEPC-2013) , Vol. 3, Number 8 (2013), pp. 1063-1070, September, 2013.	Rajesh Mehra et.al
59.	"FTL Design Analysis and Comparison with Standard CMOS – A Review", National Conference on Signal Processing and Communication Technology (NCSPCT), May, 2013.	Rajesh Mehra et.al
60.	"Multichannel Data Acquisition System Using Multirate Signal Processing", IEEE Sponsored National Conference on Advances in Electrical Power and Energy Systems, pp.-230-233, September, 2013.	Rajesh Mehra et.al
61.	"Performance Analysis of Inverter using Domino Logic", National Conference on Electronics and Communication Engineering (RACE 2014) , pp.-1-9, March 2014	Rajesh Mehra et.al
62.	"MOSFET Performance Analysis of Constant Current Source for Different Aspect Ratio" National Conference on Electronics and Communication Engineering (RACE 2014) , pp.-1-7, March, 2014.	Rajesh Mehra et.al
63.	"CMOS Based Design Simulation of Adder/ Subtractor using Different Foundries", National Conference on Electronics and Communication Engineering (RACE 2014), pp.-1-7, March, 2014.	Rajesh Mehra et.al
64.	"Performance and Resource Analysis of IIR Filter using Different Techniques", National Conference on Electronics and Communication Engineering (RACE 2014) , pp.-1-5 , March, 2014.	Rajesh Mehra et.al
65.	"Design Analysis of Nand Gate using Cascode Voltage Switch Logic", National Conference on Advancement in Solid State Devices and Circuits (ASSDC-13-IG-10), pp. 43-45, April, 2013.	Rajesh Mehra et.al
66.	"Design of Novel Domino Xor Circuit For Minimization of Leakage Power", 2nd National Conference on AEMDS, Vol. 2, pp.123-126, 2013.	Rajesh Mehra et.al
67.	"Comparison between General Static CMOS Level Shifter and Proposed Static CMOS Level Converter", National Conference on Advancement in Solid State Devices and Circuits (ASSDC-13-IG-42), pp. 203-205, April 2013.	Rajesh Mehra et.al
68.	"Low Power 1-Bit Comparator Using Different CMOS Technology", National Conference on Advancement in Solid State Devices and Circuits, pp. 206-209, April 2013.	Rajesh Mehra et.al
69.	"Design Analysis of Sr and D Flip-Flop on 0.12 Micron Technologies", National Conference on Advancement in Solid State Devices and Circuits, pp. 284-288, April 2013	Rajesh Mehra et.al
70.	"Design Analysis of CMOS Xor Gate Using Different Foundries," National Conference on Advancement in Solid State Devices and Circuits, pp. 165-169, April 2013.	Rajesh Mehra et.al

Sr. No.	Title of the Paper Presented/Accepted	Author(s) Name
71.	"CMOS Design and Single Supply Level Shifter using 90nm Technology" Conference on Advances in Communication and Control System, pp-150-153, 2013.	Rajesh Mehra et.al
EDUCATION AND EDUCATIONAL MANAGEMENT		
72.	"Online Assessment: Students' Perceptions", Proceedings of International Conference on Technology-Enhanced Learning: Lessons, Challenges, Possibilities, University of British Columbia , Vancouver (Canada), 11-13 July, 2013.	SP Bedi
73.	"Quality Culture in Higher Education – Generation and Sustenance" in NAAC sponsored National Seminar on International Quality Assurance: Developing Processes for Positive Outcomes, Chitkara Colleges of Education for Women, Rajpura, 25 July, 2013.	Sunil Dutt
ELECTRICAL ENGINEERING		
74.	"MPPT Based Solar Powered Cascade Multilevel Inverter", IEEE International Conference on 'Microelectronics, Communication and Renewable Energy' (AICERA 2013: (ICMICR), Kanjirappally Kottayam Dt, Kerala, 4-6 June, 2013.	Shimi S. L et.al
75.	"An Improved Current Feedback Based Maximum Power Point Tracking Controller for Solar Photo Voltaic System", IEEE International Conference on 'Microelectronics, Communication and Renewable Energy' (AICERA 2013: ICMICR), Kanjirappally, Kottayam Dt, Kerala, 4-6 June, 2013.	S. Chatterji et.al
76.	"Maximum Solar Power Point Tracking System For Green House Application", National conference on Renewable Energy Sources, Shoolini University , Solan, 8-9 June, 2013.	S.Chatterji et.al
77.	"Artificial Intelligence Based Cascade Multi-Level Inverter For Smart Nano Grid", International Conference on Control, Automation, Robotics and Vision Engineering, Toronto, Canada., June 20-21, 2013.	S. Chatterji Shimi S. L
78.	"Implementation of Servo Controlled Magnetic Levitation System using dSpace DS1104", Zonal Seminar on Emerging Trends in Embedded System Technologies (ETECH-2013), at IETE, Chandigarh, August 23-24, 2013.	Shimi S.L et.al
79.	"A Novel Artificial Intelligence based Ultra Modern Smart Green City Planning Using LabVIEW VIMANTRA 2013", 10 TH Annual National Technical paper Contest for Research Scholars, (won second prize) 02-03 September, 2013.	S. Chatterji et.al
80.	"Web Laboratory in Instrumentation Engineering for Distance Education using LabVIEW", IEEE International Conference on MOOC, Innovation and Technology in Education (MITE), Poornima University, Jaipur , pp 240-244, December, 2013	S. Chatterji et.al

Sr. No.	Title of the Paper Presented/Accepted	Author(s) Name
81.	"Software Based Approach for Solar Radiation Estimation", International Congress on Renewable Energy(ICORE) at Pandit Dindayal Petroleum University, Gandhinagar,Gujarat , Vol 1, pp 237-242, 06-07 December, 2013.	Shimi S.L et.al
82.	"Modeling, Simulation and Control of Single Actuator Magnetic Levitation System", IEEE International Conference on Recent Advances in Engineering and Computational Sciences at UIET, Panjab University Chandigarh, 06 - 08 March, 2014.	Shimi S.L et.al
83.	"Real Time Simulation and Analysis of Maximum Power Point Tracking (MPPT) Techniques for Solar Photo-Voltaic System", IEEE International Conference on Recent Advances in Engineering and Computational Sciences at UIET, Panjab University Chandigarh, 06 - 08 March, 2014	S. Chatterji et.al
84.	"Global Trends in Embedded System Technologies: A Worldwide Review", Zonal Seminar on Emerging Trends in Embedded System Technologies, (ETECH-2013) 23-24 August, 2013.	Ritula Thakur S.Chatterji
85.	"Design and Development of Microcontroller based Digital Grain Moisture Analyser for Indian Wheat", Zonal Seminar on Emerging Trends in Embedded System Technologies, (ETECH-2013), 23-24 August, 2013.	Ritula Thakur S.Chatterji
86.	"Design of Microcontroller Based Low Cost Non-Destructive Grain Moisture Meter", Zonal Seminar on Emerging Trends in Embedded System Technologies, (ETECH-2013), 23-24 August, 2013.	Ritula Thakur S.Chatterji
87.	"Feature Assortment via Rough Set in Incursion Revealing: Embedded Systems", Zonal Seminar on Emerging Trends in Embedded System Technologies,(ETECH -2013), 23-24 August, 2013.	Ritula Thakur S.Chatterji
88.	"Virtual Switching Panel using Matlab and Embedded System", Zonal Seminar on Emerging Trends in Embedded System Technologies, (ETECH-2013), August, 23-24, 2013.	Ritula Thakur S.Chatterji
89.	"Smart Grid for a Green Future", Zonal Seminar on Emerging Trends in Embedded System Technologies, (ETECH-2013), 23-24 August, 2013.	Ritula Thakur S.Chatterji
90.	"Simulation Studies of Wenner, Schlumberger and Dipole-Dipole Arrays of Soil Mapper Embedded System to Map different Soil Rooting Zones", Zonal Seminar on Emerging Trends in Embedded System Technology, (ETECH-2013)23-24 August, 2013.	Ritula Thakur S.Chatterji
91.	"Design and Development of A Microcontroller Based Energy Conservation Device for Smart Office", Zonal Seminar on Emerging Trends in Embedded System Technologies, (ETECH-2013), 23-24 August, 2013.	Ritula Thakur S.Chatterji

Sr. No.	Title of the Paper Presented/Accepted	Author(s) Name
92.	"Fault Diagnosis System for Power Station using Fuzzy Relations, International Conference on Computer Applications in Electrical Engineering Recent Advances: Smart Grid Technologies (CERA 13), held at IIT Roorkee, October 2013.	Lini Mathew S. Chatterji
93.	"Optimal Dispatch of Renewable Energy Sources in Smart Grid Pertinent to Virtual Power Plant" IEEE, International Conference on Green Computing, Communication and Conservation of Energy- ICGCE 2013 held at RMD Engineering College, Chennai 12-14 December, 2013.	S. Chatterji et.al
94.	Multi Objective Optimal Dispatch in a Virtual Power Plant Using Genetic Algorithm, presented at IEEE International Conference on Renewable Energy And Sustainable Energy- ICRESE13 held at Karunya University, Coimbatore, 05-06 December, 2013.	S. Chatterji et.al
95.	"MATLAB/SIMULINK Based Simulation of Hybrid Power Flow Controller", Fourth International Conference on Advanced Computing and Communication Technologies, held by R. G. Education Society, India, pages 523-531, 08-09 February, 2014.	Lini Mathew, S. Chatterji
96.	"Design and Development of a Real Time Monitoring System of Vital Human Body Parameters like Surface Temperature, Blood Pressure and Heart rate", 3 rd International Conference on Biomedical Engineering and Assistive Technologies, held at University Institute of Engineering & Technology, Panjab University, Chandigarh , 14-15 February, 2014.	Lini Mathew et.al
97.	"Development of Linear Quadratic Regulator Based P1 Controller for Maximum Power Point Tracking in Solar Photo-Voltaic System, International Conference on Recent Advances in Engineering and Computational Sciences (RAECS 2014)", UIET Panjab University, Chandigarh, 06-08 March ,2014.	S. Chatterji
ENTREPRENEURSHIP DEVELOPMENT AND INDUSTRIAL COORDINATION		
98.	"Application of Blue Ocean Strategy for Entrepreneurship Promotion", International Conference on Emerging Markets and Issues in Management, VIT Vellore, 19-20 April, 2013	SK Dhameja
99.	"Social Entrepreneurship: Contribution and Challenges", International Conference on Emerging Markets and Issues in Management, VIT Vellore, 19-20 April, 2013	SK Dhameja
100.	"Industry-Institute-Interaction", HR Conclave on Seamless Integration: Industrial Expectation vs. Academic Preparations, Baddi University of Emerging Sciences and Technology, Baddi, HP, 13 July, 2013	SK Dhameja

Sr. No.	Title of the Paper Presented/Accepted	Author(s) Name
101.	"Teaching Green Entrepreneurship for Sustainable Development in Technical Institutions", National Conference on Dynamics of Entrepreneurship Development, NITTTR, Chandigarh 21-22 November, 2013	Amardev Singh
102.	"Concept, Issues and Challenges of Social Entrepreneurship", 14 th International Conference on Advances and Challenges in Global Business, Tourism and Information Technology, Jaipur, 01-02 February, 2014	SK Dhameja PK Singla
103.	"Emerging Global Trends: Social, Women and Rural Entrepreneurship", National Seminar on Strengthening Entrepreneurship Education in TVET Sector of Nepal, Council of Technical and Vocational Education, Kathmandu, 12 February, 2014	SK Dhameja
104.	"Technical Entrepreneurship-Role of Technology Business Incubators", National Science Day Celebrations, SLIET Longowal (PU), 28 February, 2014	SK Dhameja
105.	"Green Entrepreneurship", National Conference on Green Business Practices – Challenges and Solutions sponsored by PTU, Rayat and Bahra Institute of Management, Kharar, Mohali, (PU), 21 March, 2014	SK Dhameja
MECHANICAL ENGINEERING		
106.	"Comparative Study on Wear Resistance of Rotavator Blades Treated with Different Surface Hardening Process", National Conference on Advances in Manufacturing Technology, NITTTR, Chandigarh, 23-24 May, 2013.	SS Banwait
107.	"Effect of Pulse Peak Voltage and Spark Gap Set Voltage during Machining of PR-Al-Si-MMC's by WEDM", National Conference on Advances in Manufacturing Technology, NITTTR, Chandigarh, 23-24 May, 2013.	SS Banwait
108.	"Effect on D-Gun Sprayed Alumina-Titania Coatings on Fictional Properties of Gray Cast Iron", National Conference on Advances in Manufacturing Technology, NITTTR, Chandigarh, 23-24 May, 2014.	BS Pabla et.al
109.	"Six Sigma – An Indispensable Methodology to Improve Quality", National Conference on Advances in Manufacturing Technology, NITTTR, Chandigarh, 23-24 May, 2014.	BS Pabla et.al
110.	"Development of Ann Based Expert System for Multiple Criteria Coding and Classification System", National Conference on Advances in Manufacturing Technology, NITTTR, Chandigarh, 23-24 May, 2014.	BS Pabla et.al

Sr. No.	Title of the Paper Presented/Accepted	Author(s) Name
111.	"Intelligent Preventive Maintenance System for Improving Availability and Reliability of Mining Equipment", National Conference on Advances in Manufacturing Technology, NITTTR, Chandigarh, 23-24 May, 2014.	BS Pabla et.al
112.	"Waste Reduction in an Indian Small Scale Industry with Lean Manufacturing", National Conference on Advances in Manufacturing Technology, NITTTR, Chandigarh, 23-24 May, 2014.	BS Pabla et.al
113.	"Effect of Modifier on Surface Finish in Chemical Mechanical Polishing", National Conference on Advances in Manufacturing Technology, NITTTR, Chandigarh, 23-24 May, 2014.	SS Dhama et.al
114.	"Application of Lean Manufacturing in Productivity Improvement of 'Head Lamp Leveling Switch' in an Assembly Line", National Conference on Advances in Manufacturing Technology, NITTTR, Chandigarh, 23-24 May, 2014.	Sunil D Jassal et.al
115.	"Study and Analysis of Forging Defects in Gear Manufacturing- An Industrial Case Study", National Conference on Advances in Manufacturing Technology, NITTTR, Chandigarh, 23-24 May, 2014.	Sunil D Jassal et.al
116.	"An Exhaustive Review of Die Sinking Electrical Discharge Machining Process and Scope for Future", International Conference on Manufacturing Engineering and Technology, (ICMET 2013), Toronto, (CANADA), 21-22 June, 2013.	SS Banwait
117.	"Optimisation of High Frequency Seam Welding Parameters by Taguchi Method", International Conference on Advancements and Futuristic Trends in Mechanical and Materials Engineering, Punjab Technical University, Kapurthala, 03-06 October, 2013.	SS Banwait
118.	"Computer Simulation as an Effective Tool in Teaching of Mechatronics" (Workshop presentation), Asian Conference on Society, Education and Technology, Osaka, Japan, 23-27 October, 2013.	SS Dhama
119.	"A Flexible Controller for Die Sinking Electrical Discharge Machining Process Leading to Automation", (ASME 2013), International Mechanical Engineering Congress and Exposition, San Diego, USA, 15-21 November, 2013.	SS Banwait
120.	"Condition Monitoring Techniques For Predictive Maintenance- A Review", TEQIP-II sponsored National Conference on Latest Developments in Materials, Manufacturing and Quality Control, Giani Zail Singh Punjab Technical University Campus, Bathinda, 13 -14 February, 2014	SS Dhama et.al

Sr. No.	Title of the Paper Presented/Accepted	Author(s) Name
121.	“A Review of Methods and Applications of Surface Coating of Gears”, TEQIP-II sponsored National Conference on Latest Developments in Materials, Manufacturing and Quality Control, Giani Zail Singh Punjab Technical University Campus, Bathinda, 13 -14 February, 2014	SS Dhami et.al
122.	“Numerical Investigations of Stress Shielding and Micromotions in α -phase Titanium THR using Finite Element Method”, 3 rd International Conference on Biomedical Engineering and Assistive Technologies (BEATS 2014), PU, Chandigarh 14-15 February, 2014.	BS Pabla et.al
123.	“Effect of 3-Mercaptopropyltriethoxysilane on Surface Finish and Material Removal Rate in Chemical Mechanical Polishing”, 3 rd International Conference on Materials Processing and Characterization, (ICMPC 2014), Hyderabad, 08-09 March, 2014.	SS Dhami et.al
MEDIA AND CONTINUING EDUCATION CENTRE		
124.	“Energy Audit - A Way of Energy Conversation”, National Conference on Recent Advances in Chemical and Environmental Sciences, MMM College, Patiala, 13-14 November, 2014	Rakesh Wats
RURAL DEVELOPMENT		
125.	“Social Entrepreneurship in India - A Perspective”, National Conference on Dynamics of Entrepreneurship Development, NITTTR, Chandigarh, 21-22 November, 2013	Poonam Syal

Annexure – III

TRAINING PROGRAMMES ATTENDED BY INSTITUTE FACULTY/ STAFF

Sr. No.	Area and Place of Training	Period	Attended by Shri/Ms
1.	Workshop on Ground Improvement Techniques for Difficult Ground Conditions at IIT Roorkee	16 April, 2013	VK Sonthwal
2.	Development and Challenges in Cloud Computing QIP at IIT, Roorkee.	10-14 June, 2013	Garima Saini
3.	Workshop on “Sensitizing the Management and Teachers of Technical Institutions to Tackle the Menace of Sexual Crime against Women at NITTTR, Chandigarh	14 June, 2013	Mala Kalra
4.	International Conference on Mechanical Engineering and Mechatronics (ICMEM’13), Ryerson University Toronto, Canada, (ICMEM’13), Ryerson University Toronto, Canada.	08-09 August, 2013	BS Pabla
5.	“The Unscrambler”, at Camo Software Ltd., Bangalore.	16-20 September, 2013	Ritula Thakur
6.	Management Capacity Enhancement for Administrator organized by IIM, Lucknow, at Noida Campus.	23-27 September, 2013	Rajesh Mehra
7.	Coordinators Workshop on Signals and Systems at IIT Kharagpur.	30 September, - 04 October, 2013.	Lini Mathew
8.	3 rd MTC Global Annual Convention (Sankalp 2013): Envisioning Management Practices in the Future, at Aravali Gurukul Ashram Kaparda, Jodhpur.	04-06 October, 2013	Amardev Singh
9.	Recent Trends on Wireless and Optical Communication at CGC, Landran, Chandigarh	02- 06 December, 2013	Kanika Sharma
10.	Harnessing Energy in Harmony with Ecology at PEC University of Technology, Chandigarh.	16-20 December, 2013	Lini Mathew Poonam Syal Himmi Gupta
11.	IRCA, UK Certified Lead Auditor Training Programme on ISO 50001:2011 (Energy Management System- EMS), at Intertek India Pvt. Ltd., Panchkula.	18-22 December, 2013	Amardev Singh
12.	Management Capacity Enhancement for Administrators, organised by IIM Lucknow at Noida Campus.	13-17 January, 2014	PK Singla SK Dhameja TN Thukral

Sr. No.	Area and Place of Training	Period	Attended by Shri/Ms
13.	National Workshop on Gender Budgeting for Master Trainers at NIRD, Jaipur Centre.	21-23 January, 2014	Lini Mathew
14.	Workshop on Neutrino at Panjab University, Chandigarh.	23-24 January, 2014	Rajesh Mehra
15.	Online Web Seminar Series on "Sensor Measurement Fundamentals" conducted by National Instruments	28-31 January, 2014	Shimi S.L.
16.	Management Development Programme for Higher Educational Institutions at Indian School of Business, Mohali.	06-08 February, 2014	JS Saini SP Bedi OS Khanna VK Sonthwal
17.	Workshop on MATLAB and Simulink for Engineering Education, organized by Math Works India, Bangalore at Chandigarh.	12 February, 2014	BS Pabla SS Banwait SS Dhami
18.	Rural Environmental Issues : Sustainable Rural Development at Haryana Institute of Rural Development, Nilokheri.	20-21 February, 2014	UN Roy
19.	National Seminar on Improving Quality in Engineering Education through ICT by IIT Mumbai.	25-26 February, 2014	BS Pabla
20.	8 th Chandigarh Science Congress (CHASCON-2014) at Panjab University, Chandigarh.	26-28 February, 2014	BC Choudhary
21.	Geo Spatial Technologies for Planning and Management of Watershed Projects at National Institute of Rural Development, Hyderabad.	02-06 December, 2014	Poonam Syal
22.	Role of User Groups and Self Help Groups with Respect to Improvement of Livelihood in Watershed Programmes at CSWCRTI, Sec 27, Chandigarh	05-07 March, 2014	UN Roy
23.	Management Capacity Enhancement Programme organised by IIM Lucknow, at Noida Campus.	10-14 March, 2014	OS Khanna TN Thukral
24.	World Summit on Accreditation "WOSA 2014", organised by National Board of Accreditation, at New Delhi	08-10 March, 2014	S.Chatterji Lini Mathew Kanika Sharma Garima Saini

Sr. No.	Area and Place of Training	Period	Attended by Shri/Ms
25.	UGC sponsored National Seminar on Active Noise Control and its Applications, UIET, Panjab University, Chandigarh.	20 March, 2014	SS Dhami
26.	World Summit on Accreditation, New Delhi	23-24 March, 2014	AK Duggal
IN-HOUSE TRAINING PROGRAMMES			
1.	AICTE Sponsored Faculty Development Programme on Signal Processing and Image Processing using SCILAB	05-16 August, 2013	Lini Mathew Ritula Thakur Mala Kalra Rajesh Mehra
2.	Solid State Control of Electric Drives through ICT	02-06 September, 2013	Ritula Thakur
3.	Advances in Materials for Sustainable Construction	19-20 September, 2013	Hemant Sood Himmi Gupta
4.	AICTE Sponsored Winter School Programme on Cloud Computing,	11- 22 November, 2013	Lini Mathew Garima Saini Kanika Sharma
5.	Building Knowledge for Adaptation to Climate Change	07 December, 2013	Hemant Sood Himmi Gupta
6.	Personality Development	13-17 January, 2014	Lini Mathew
7.	Laboratory Management System and Internal Audit	05-08 March, 2014	SK Sharma Jyothi PM



सत्यमेव जयते

भारतीय लेखा तथा लेखा परीक्षा विभाग
कार्यालय महानिदेशक - लेखा परीक्षा (केन्द्रीय), चण्डीगढ़
ANNEXURE - IV
INDIAN AUDIT AND ACCOUNTS DEPARTMENT
OFFICE OF THE DIRECTOR GENERAL OF AUDIT (CENTRAL),
CHANDIGARH - 160017

क्रमांक / No.: PDA(C)/CE/SARs/2014-15/484
दिनांक / Dated: 12/12/2014

To

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

Subject: Separate Audit Report on the accounts of National Institute of Technical Teachers' Training and Research, Chandigarh for the year ended 31 March 2014.

Sir,

I enclose a copy of the Separate Audit Report on the accounts of National Institute of Technical Teachers' Training and Research, Chandigarh for the year ended 31 March 2014 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 the Director, National Institute of Technical Teachers' Training and Research, Chandigarh alongwith Separate Audit Report for the year ended 31 March 2014 for information please.

Deputy Director

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 2014.

We have audited the Balance Sheet of National Institute of Technical Teachers' Training and Research, Chandigarh as at 31 March 2014, 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 reentrusted for a period of five years from 2013-14 to 2018-19. 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;
- ii) The Balance Sheet dealt with by this report have not been drawn up in the uniform format approved by the Government of India, Ministry of Finance.
- 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

A.1 Restricted Funds: Rs.140.14 lakh (Schedule 4)

Fixed Assets purchased during the year against two projects i.e. Research Promotion Scheme-AICTE project and Computer Science 5.16 project valuing Rs.12.23 lakh and Rs.4.72 lakh respectively have not been shown in the Fixed Assets. Depreciation (amounting Rs.0.92 lakh and Rs.0.35 lakh respectively) has not been provided on these fixed assets. This has resulted in understatement of Restricted Funds- Deferred Income as well as Fixed Assets by Rs.15.68 lakh.

A.2 Current Liabilities & Provisions (Schedule 6)

A.2.1 Other Current Liabilities

Receipts against sponsored fellowship & Scholarship: Rs.328.63 lakh

- (i) Fixed Assets (Schedule 7) includes net block of fixed assets Rs. 12.12 lakh (Gross Block Rs.30.47 lakh minus Accumulated depreciation Rs.18.35 lakh upto 31 March 2014) created upto 31 March 2014, out of funds of Sponsored Projects. The cost of these fixed assets purchased for Sponsored Projects have not been deducted from the Current Liabilities against these projects and not shown as Deferred Income under the Restricted Fund. The depreciation against these projects is being charged to Income and Expenditure Account instead of Sponsored projects. This has resulted in understatement of Restricted Fund-Deferred Income by Rs.12.12 lakh, understatement of General Fund by Rs. 18.35 lakh and overstatement of Current Liabilities against Sponsored Projects by Rs. 30.47 lakh.
- (ii) As per Accounting Policy (at Sr.No.3) the Institute has not claimed depreciation on Fixed Assets purchased during the year out of restricted fund and sponsored projects. The policy adopted by the Institute is not in accordance with the AS 6 and Accounting Format which requires the charging of depreciation on Fixed Assets created out of Restricted Funds. Fixed Assets amounting Rs. 7.71 lakh were purchased during the year out of funds of Sponsored Projects. However, Institute has not deducted the cost of these assets from the Current Liabilities against the Sponsored Projects. Further, depreciation on these assets has not been charged in terms of wrongful Accounting Policy adopted as already mentioned. This has resulted in overstatement of Current Liability by Rs. 7.71 lakh, overstatement of Fixed Assets by Rs.0.58 lakh and understatement of Restricted Fund-Deferred Income by Rs.7.13 lakh.

A.2.2 Provision for Pension Fund

Provision for liability towards pension on superannuation of employees has not been made. Similar comment was also made in the last year's audit report.

A.3 Advances Account Rs. 548.49 lakh

Above includes Rs.129.99¹ lakh 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. Depreciation has also been under-charged to the extent of Rs.4.65 lakh on these assets. This has resulted in understatement of Fixed Assets by Rs.121.64 lakh (Rs.129.99 lakh minus Depreciation Rs.8.35 lakh), overstatement of Advances by Rs.129.99 lakh, and understatement of Expenditure as well as overstatement of General Fund by Rs. 8.35 lakh.

B. General

B.1 Format of Accounts

Ministry of Finance, GOI had introduced Uniform Format of Accounts for all Central Autonomous Bodies in 2001 in consultation with CAG of India. Balance Sheet of the National Institute of Technical Teachers' Training and Research, Chandigarh has been prepared in the new format of accounts introduced by Ministry of Human Resources Development, Government of India for institutions of Higher Education, which are still under finalization in consultation with CAG of India.

B.2 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. Approval to declare these assets as obsolete/ unserviceable is yet to be accepted by the Board of Governors. A reference is invited to Accounting Standard 10 issued by Institution of Chartered Accountants of India (ICAI) which prescribe that the items of fixed assets retired from active use and held for disposal are to be stated at the lower of their net book value and net realizable value and are shown separately in the financial statements. Any expected loss is recognized immediately in the Profit & Loss Account. However, Institute has neither valued the unserviceable items of fixed assets as per the provisions of AS 10 nor made any disclosure in this regard in the accounts.

¹ Construction work of New Hostel Block Rs. 29.89 lakh and other related works under OBC/ OSC Scheme Rs. 63.11 lakh, construction of all weather path Rs. 21.14 lakh, Development of language and communication lab Rs. 6.82 lakh and Construction of open air stage Rs. 9.03 lakh.

B.3 Sale of fixed assets

The institute has sold, in the year 2013-14, certain fixed assets declared unserviceable for Rs.11.98 lakh. In the accounts, institute has deducted the sale proceeds of Rs.7.62 lakh instead of Gross value of fixed assets sold from the Gross block of fixed assets and balance Rs.4.36 lakh were shown in Other Income as "Sale of scrap" (Schedule 14- Annexure 8). Gross block and accumulated depreciation in respect of fixed assets disposed off was called for and is still awaited. In the absence of requisite information, the profit on the sale of fixed assets and written-down value (WDV) of fixed assets existing as on 31 March 2014 could not be verified in audit.

B.4 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 2014 is as under:

- i Asset understated by Rs. 6.75 lakh.
- ii Liabilities understated by Rs.2.98 lakh.
- iii General Fund understated by Rs. 3.77 lakh.

C. Grants in aid

Out of the available funds of Rs.4052.81 lakh (Plan Rs.1222.18 lakh and Non-plan Rs.2830.63 lakh), including Grant in Aid received from Govt. of India, New Delhi during the year Rs.2591.00 lakh (Plan Rs.1220.00 lakh and Non Plan Rs.1371.00 lakh), previous year balance of Rs.995.51 lakh (Plan Rs.0.45 lakh and Non Plan Rs.995.06 lakh), internal receipts of Rs.466.30 lakh (Plan Rs.1.73 lakh and Non-plan Rs.464.57 lakh), the Institute could utilize the sum of Rs.3016.70 lakh (Plan Rs.1205.10 lakh and Non-Plan Rs.1811.60 lakh) leaving an unspent balance of Rs.1036.11 lakh (Plan Rs.17.08 lakh, Non-plan Rs.1019.03 lakh).

D. 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 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 2014; 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.



**Principal Director of Audit (Central),
Chandigarh**

Place: Chandigarh

Date:

Annexure to Audit Report

1. Internal Audit System:

Internal audit system was found to be adequate except that Internal Audit Manual has not been prepared.

2. Internal Control System:

Internal control system was found to be adequate in areas seen by audit except that the Institute has not prepared its Accounting Manual.

3. Physical verification of Fixed Assets

Physical verification of Fixed Assets for the year 2013-14 was conducted in the month of April 2014 and no shortage/ excess was noticed.

Register of Fixed Assets, as produced to audit, was having the details of Fixed Assets purchased during the years from 2006-07 to 2013-14 instead of Fixed Assets as on 31-03-2014 and contents of Fixed Assets register did not match with the Accounts.

4. Physical verification of Inventories and Library books

(a) Physical verification of Inventory for the year 2013-14 was conducted in the month of April 2014 and no shortage/ excess was noticed.

(b) No physical verification has been conducted of library books since 2008.

5. Regulatory in payment of statutory dues

The Institute was regular in depositing the statutory dues.



Deputy Director

**National Institute of Technical Teachers Training and Research
Sector 26, Chandigarh**

BALANCE SHEET AS ON 31st MARCH, 2014

(RUPEES IN LAKH)

SOURCES OF FUNDS	Schedule	Amount Current year	Amount Previous year
Unrestricted Funds			
Corpus Fund	1	3,512.55	2615.55
General Fund	2	-848.86	-347.06
Designated fund	3	1,394.21	1,268.35
Restricted Funds	4	140.14	52.16
Loans/Borrowings	5	-	-
Secured			
Unsecured			
Current Liabilities & Provisions	6	2,115.70	1744.33
TOTAL		6,313.74	5,333.33
<u>APPLICATION OF FUNDS</u>			
Fixed Assets	7 & 7(a)		
Tangible Assets		2,667.55	2,411.83
Intangible Assets			
Capital Work in progress		548.49	297.28
Investments	8		-
Long term			
Short term			
Current Assets	9	2,900.12	2488.41
Loans, Advances & Deposits	10	197.58	135.81
TOTAL		6,313.74	5,333.33

Notes to accounts 22

Sd/-
Accounts Officer
NITTTR, Chandigarh

Sd/-
Director
NITTTR, Chandigarh

**National Institute of Technical Teachers Training and Research
Sector 26, Chandigarh**

INCOME & EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31st MARCH, 2014

(RUPEES IN LAKH)

Particulars	Schedule	Amount Current year	Amount Previous year
<u>INCOME</u>			
Academic Receipts	11	138.44	191.48
Grants & Donations	12	1,696.00	1,545.00
Income from Investments	13	-	
Other Incomes	14	244.29	177.54
TOTAL (A)		2,078.73	1,914.02
<u>EXPENDITURE</u>			
Staff Payments & Benefits	15	1,945.24	1751.27
Academic Expenses	16	22.58	9.36
Administrative & General Expenses	17	472.32	394.97
Transportation Expenses	18	4.73	3.32
Repairs & maintenance	19	126.55	101.67
Finance Costs	20	5.89	0.49
Other Expenses	21	3.22	-
TOTAL (B)		2,580.53	2261.08
Balance being excess of expenditure over income (A-B)		-501.80	-347.06

**Sd/-
Accounts Officer
NITTTR, Chandigarh**

**Sd/-
Director
NITTTR, Chandigarh**

**National Institute of Technical Teachers Training and Research
Sector 26, Chandigarh**

SCHEDULE FORMING PART OF BALANCE SHEET AS AT 31st MARCH, 2014

(RUPEES IN LAKH)

	Amount	Amount
	Current year	Previous year
<u>SCHEDULE 1 - CORPUS FUND</u>		
1 Balance at the beginning of the year	2,615.55	2,114.98
2 Add : Contributions towards Corpus	897.00	480.00
3 Less : Assets W/off	-	-
4 Less : Prior Period Adjustment	-	20.57
Balance at the year end	3,512.55	2,615.55

	Amount	Amount
	Current year	Previous year
<u>SCHEDULE - 2 GENERAL FUND</u>		
1 Balance at the beginning of the year	-347.06	-
2 Add : Contributions towards General Fund	-	-
3 Deduct : Balance of Net Expenditure account	-501.80	-347.06
Balance at the year end	-848.86	-347.06

	(RUPEES IN LAKH)		
	Fund	Fund	Total
	NPS	GPF/CPF	Current Year
<u>SCHEDULE – 3 DESIGNATED/EARMARKED FUNDS</u>			
Opening Balance of the funds	2.96	1265.33	1,268.29
Additions to the funds :-			
Donations/grants	-		
Income from Investments made on account of funds	-	48.36	48.36
Accrued Interest on Investments of the funds	-	67.19	67.19
Other Additions (Specify nature)	0.10	333.01	333.11
(Total A+B)	3.06	1,713.89	1,716.95
Utilization/Expenditure towards objectives of funds			
i) Capital Expenditure			
- Fixed Asset	-	-	-
- Others	-	-	-
Total	-	-	-
ii) Revenue Expenditure			
- Salaries, Wages and allowances etc.	-	-	-
- Rent	-	-	-
- Other Administrative Expenses	0.08	322.66	322.74
Total	0.08	322.66	322.74
(Total C)	0.08	322.66	322.74
Net Balance at the yearend (a+b+c)	2.98	1,391.23	1,394.21

SCHEDULE - 4 RESTRICTED FUNDS

(RUPEES IN LAKH)

	Fund GOI	Fund TEQIP-II World Bank	Fund RPS by AICTE	Fund Computer Sc. OP. No. 5.17	Fund Computer Sc. OP. No. 5.16	Fund EC - 137 AICTE	Total Current Year	Previous Year	Total Prev. Year
Opening Balance of the funds	52.16	-	-	-	-	-	52.16	60.60	60.60
Additions to the funds :-									
Donations/grants	-	100.00	13.33	39.50	32.85	6.30	191.98	-	-
Income from Investments made on account of funds	1.07	-	-	-	-	-		1.26	1.26
Accrued Interest on Investments of the funds	-	-	-	-	-	-	-	-	-
Other Additions (Specify nature)	-	-	-	-	-	-	-	-	-
(Total A+B)	53.23	100.00	13.33	39.50	32.85	6.30	245.21	61.86	61.86
Utilization/Expenditure towards objectives of funds									
i) Capital Expenditure									
- Fixed Asset	-	40.79	12.23	-	4.72	-	57.74	-	-
- Others	-	-	-	-	-	-	-	-	-
Total	-	40.79	12.23	-	4.72	-	57.74	-	-
ii) Revenue Expenditure									
- Salaries, Wages and allowances etc.	0.88	13.32	-	-	0.10	0.96	15.26	1.59	1.59
- Rent	-	-	-	-	-	-	-	-	-
- Other Administrative Expenses	7.94	18.89	0.29	-	1.74	3.21	32.07	8.11	8.11
Total	8.82	32.21	0.29	-	1.84	4.17	47.33	9.70	9.70
(Total C)	8.82	73.00	12.52	-	6.56	4.17	105.07	9.70	9.70
Net Balance at the yearend (a+b-c)	44.41	27.00	0.81	39.50	26.29	2.13	140.14	52.16	52.16

Sd/-
Accounts Officer
NITTTR, Chandigarh

Sd/-
Director
NITTTR, Chandigarh

(RUPEES IN LAKH)

SCHEDULE - 5 LOANS/BORROWINGS

		Amount Current year	Amount Previous year
<u>SECURED LOANS</u>			
1	Central Government	-	-
2	State Government (specify)	-	-
3	Financial Institutions		
a	Term Loans	-	-
b	Interest accrued and due	-	-
4	Banks		
a	Term Loans	-	-
	- Interest accrued and due	-	-
b	Other Loans (specify)		
	- Interest accrued and due	-	-
5	Other Institutions & agencies	-	-
6	Debentures and Bonds	-	-
7	Others (specify)	-	-
TOTAL		-	-

Note: Amount due within one year

<u>UNSECURED LOANS</u>			
1	Central Government	-	-
2	State Government (specify)	-	-
3	Financial Institutions	-	-
4	Banks		
a	Term Loans	-	-
	- Interest accrued and due	-	-
b	Other Loans (specify)		
	- Interest accrued and due	-	-
5	Other Institutions & agencies	-	-
6	Debentures and Bonds	-	-
7	Fixed Deposits	-	-
8	Others (specify)	-	-
TOTAL		-	-

Note: Amount due within one year

Sd/-
Accounts Officer
NITTTR, Chandigarh

Sd/-
Director
NITTTR, Chandigarh

SCHEDULE – 6 - CURRENT LIABILITIES & PROVISIONS

(RUPEES IN LAKH)

		Amount Current year	Amount Previous year
A. CURRENT LIABILITIES			
1	Deposits from Staff :		
	- Staff Welfare fund	5.10	2.38
	- Ground Rent from Employees	0.15	-
2	Deposits from Students :-		
	- Alumni Association	1.06	0.41
	- Examination Fee	0.02	0.18
3	Sundry Creditors		
a	For goods & services	3.74	3.55
b	Others	93.34	83.85
4	Advances Received - Canteen	0.12	-
5	Interest accrued but not due	-	
a	Secured loans/ borrowings	-	
b	Unsecured loans/ borrowings	-	
6	Statutory Liabilities (GPF,TDS.WC TAX,CPF, GIS, NPS)		
a	Overdue	-	
b	Others	7.57	9.52
7	Others current liabilities		
a	Salaries		
b	Receipts against sponsored projects	328.63	93.76
c	Receipts against sponsored fellowship & scholarships		
d	Unutilised Grants		
e	Grants in advance		
f	Others funds	70.75	73.28
g	Others liabilities	0.89	-
TOTAL (A)		511.37	266.93
B PROVISIONS			
1	For taxation		
2	Gratuity	809.47	752.43
3	Superannuation/pension	22.49	19.25
4	Accumulated leave encashment	637.66	598.06
5	Expenses payable	134.63	107.59
6	Trade Warranties/claims		
	Others (specify) - GOI- Restricted Fund -		
7	Salary	00.08	0.06
TOTAL (B)		1,604.33	1477.39
TOTAL (A+B)		2,115.70	1744.32
Sd/-		Sd/-	
Accounts Officer		Director	
NITTTR, Chandigarh		NITTTR, Chandigarh	

**National Institute of Technical Teachers Training and Research
Sector 26, Chandigarh**

FIXED ASSETS AS AT 31st MARCH, 2014

SCHEDULE – 7 FIXED ASSETS NET BLOCK

PARTICULARS	Rate %	GROSS BLOCK					DEPRECIATION					NET BLOCK	
		Cost/evaluation as at beginning of the year	Additions before 30.9.2013	Additions after 30.9.2013	Deductions during the year	cost/value at the year end	As at the beginning of the year	On Additions of the year	On Deduction of the year	+ Depreciation add back prior period	Total at the year end	As at the current year end	As at the previous year end
A Fixed Assets		(RUPEES IN LAKH)											
1 Institute Account													
i Land - Free hold	0	15.68	-	-	-	15.68	-	-	-	-	-	15.68	15.68
ii Land - Lease hold	0	18.90	-	-	-	18.90	0.50	-	0.25	-	0.75	18.15	18.40
iii Buildings- Residential	5	394.43	-	-	-	394.43	302.70	4.59	-	-	307.29	87.14	91.73
iv Buildings- Office Block	10	524.34	1.00	51.68	-	577.02	326.72	22.45	-	-	349.17	227.85	197.62
v Buildings- Hostel	5	1,209.72	-	-	-	1,209.72	293.07	45.83	-	-	338.90	870.82	916.65
vi Equipments	15	2,373.40	62.04	242.54	6.95	2,671.03	1,471.53	161.73	-	-	1,633.26	1,037.77	901.87
vii Computer	60	171.98	18.45	200.08	0.34	390.17	136.55	92.15	-	-	228.70	161.47	35.43
viii i Books	10 0	96.38	-	3.10	-	99.48	96.38	3.10	-	-	99.48	-	-
ix Technical Journals	10 0	52.01	-	-	-	52.01	52.01	-	-	-	52.01	-	-
x Furniture Fixture & Electrical Installation	10	287.55	17.51	18.06	0.33	322.79	107.46	20.63	-	-	128.09	194.70	180.09
xi Vehicle	15	19.07	-	-	-	19.07	17.52	0.23	-	-	17.75	1.32	1.55
2 Continuation Education						-			-	-			
i Equipments	15	4.40	-	-	-	4.40	4.21	0.03	-	-	4.24	0.16	0.19
3 Sponsored Projects						-			-	-			
i Equipments	15	12.63	-	-	-	12.63	8.06	0.69	-	-	8.75	3.88	4.57
ii Vehicle	15	6.76	-	-	-	6.76	0.51	0.94	-	-	1.45	5.31	6.25
4 Assets under OBC-OSC						-			-	-			
i Equipments	15	3.96	-	-	-	3.96	1.82	0.32	-	-	2.14	1.82	2.14
ii Furniture	10	1.45	-	-	-	1.45	0.39	0.11	-	-	0.50	0.95	1.06
iii Books	10 0	1.27	-	-	-	1.27	1.27	-	-	-	1.27	-	-
5 Assets under TEQIP-II													

	World Bank													
i	Equipments	15	-	-	-	-	-	-	-	-	-	-	-	-
6	Assets under AICTE													
i	Equipments	15	-	-	-	-	-	-	-	-	-	-	-	-
7	Assets under 5.16 Comp. Sc.													
i	Equipments	15	-	-	-	-	-	-	-	-	-	-	-	-
ii	Furniture	10	-	-	-	-	-	-	-	-	-	-	-	-
5	Customized AICTE													
i	Equipments	15	-	-	1.86	-	1.86	-	0.00	-	-	0.00	1.86	-
6	Pb State Co-op bank-13 - Mech													
i	Equipments	15	-	-	5.85	-	5.85	-	0.00	-	-	0.00	5.85	-
	Total - A		5,193.93	99.00	523.17	7.62	5,808.48	2,820.70	352.79	0.25	-	3,173.74	2,634.72	2,373.23
B	Advances Account													
	Capital Work in Progress with Chd Admin.													
i	with Chd Admin.		30.58	96.98	-	-	127.56	-	-	-	-	-	127.56	30.58
ii	Expenditure on building-work in progress - New Lab		57.20	-	-	-	57.20	-	-	-	-	-	57.20	57.20
iii	Capital Work in Progress- Road		38.78	-	-	-	38.78	-	-	-	-	-	38.78	38.78
iv	Expenditure on building-work in progress		170.72	-	-	-	170.72	-	-	-	-	-	170.72	170.72
	Adv Equip. a/c			22.65	-	-	22.65						22.65	
	Adv Equip. Applied Sc.			21.45	-	-	21.45						21.45	
	Adv renovation with BSNL			-	110.13	-	110.13						110.13	
	Total - B		297.28	141.08	110.13	-	548.49	-	-	-	-	-	548.49	297.28
	Grand Total		5,491.21	240.08	633.30	7.62	6,356.97	2,820.70	352.79	0.25	-	3,173.74	3,183.21	2,670.51

Sd/-
Accounts Officer
NITTTR, Chandigarh

Sd/-
Director
NITTTR, Chandigarh

**National Institute of Technical Teachers Training and Research
Sector 26, Chandigarh**

FIXED ASSETS UNDER GOI PROJECTS AS PER SCHEDULE 7-A AS AT 31st MARCH, 2014

FIXED ASSETS- NET BLOCK AS PER SCHEDULE-7-A

(RUPEES IN LAKH)

PARTICULARS	RATE %	GROSS BLOCK				DEPRECIATION			NET BLOCK	
		Cost/evaluation as at beginning of the year	Additions after 30.09.2013	Deductions during the year	Cost/Value at the year end	As at the beginning of the year	on Addition of the year	Total at the year end	As at the current year end	As at the previous year end
Fixed Assets										
i Equipments	15.00	164.49	-	-	164.49	126.27	5.73	132.00	32.49	38.22
ii Furniture	10.00	0.99	-	-	0.99	0.62	0.04	0.66	0.33	0.37
iii Books	100.00	0.21	-	-	0.21	0.21	-	0.21	-	-
Gifted Equipment	15.00	0.07	-	-	0.07	0.07	-	0.07	-	-
Grand Total		165.76	-	-	165.76	127.17	5.77	132.94	32.83	38.60

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NITTTR, Chandigarh

Sd/-
Director
NITTTR, Chandigarh

**National Institute of Technical Teachers Training and Research
Sector 26, Chandigarh**

SCHEDULE 8 - INVESTMENTS

(RUPEES IN LAKH)

	Amount Current year	Amount Previous year
<u>INVESTMENTS FROM EARMARKED / ENDOWMENT FUNDS</u>		
1 In Central Government Securities	-	-
2 In state Government Securities	-	-
3 Other approved Securities	-	-
4 Shares	-	-
5 Debentures and Bonds	-	-
6 Others (to be specified)	-	-
<u>INVESTMENTS OTHERS</u>		
1 In Central Government Securities	-	-
2 In state Government Securities	-	-
3 Other approved Securities	-	-
4 Shares	-	-
5 Debentures and Bonds	-	-
6 Others (to be specified)	-	-
Total	-	-

**Sd/-
Accounts Officer
NITTTR, Chandigarh**

**Sd/-
Director
NITTTR, Chandigarh**

**National Institute of Technical Teachers Training and Research
Sector 26, Chandigarh**

SCHEDULE 9 - CURRENT ASSETS

		(RUPEES IN LAKH)	
		<u>Amount</u>	<u>Amount</u>
		<u>Current year</u>	<u>Previous year</u>
1	Stock		
a	Stores & Spares	5.34	1.22
b	Loose tools	-	
c	Publications	4.58	8.05
2	Sundry debtors		
a	Debts o/s for a period exceeding six months		
b	Others - CPF/GPF - Earmarked Fund	1.13	1.07
3	Cash balances in hand (including cheques/ drafts and earmarked fund or otherwise)	11.10	2.1
	Cash & Bank Balances - GOI - Restricted Fund	0.02	1.32
4	Bank balances (to be further classified as pertaining to earmarked fund or otherwise)		
a	With Scheduled Banks		
*	in current accounts		
*	in term deposit accounts	1,252.47	1082.76
*	in savings accounts	290.70	171.04
	New Pension Scheme- S/A with Scheduled Bank - Earmarked fund	1.10	1.06
	GPF/CPF- with Scheduled Bank S/A - Earmarked fund	26.58	57.99
	FDR's GOI - with Scheduled Bank - Restricted Fund	10.75	11.53
	FDR's GPF/CPF- with Scheduled Bank - Restricted Fund	1,296.35	1150.27
b	With non- Scheduled bank		
*	in current accounts		
*	in term deposit accounts		
*	in savings accounts		
	Post Office savings Accounts	-	-
TOTAL		2,900.12	2488.41

Sd/-
Accounts Officer
NITTTR, Chandigarh

Sd/-
Director
NITTTR, Chandigarh

SCHEDULE 10 - LOANS & ADVANCES

		(RUPEES IN LAKH)	
		<u>Amount</u>	<u>Amount</u>
		<u>Current year</u>	<u>Previous year</u>
a	Salary		
b	Festival	-	
c	LTC		
d	Medical advance		
e	Other - (Permanent & Temporary Imprest)	11.24	3.40
2	Long term advances to employees (interest bearing)		
a	Vehicle loan	8.26	10.00
b	Home loan	5.99	7.53
c	Others - Computer, Festival	7.04	6.57
3	Advances & other amounts recoverable in cash or in kind or for value to be received.		
a	On capital account		
b	to suppliers		
c	others	19.83	17.73
4	Prepaid expenses		
a	Insurance		
b	Other expenses - for Software	12.80	16.18
5	Deposits		
a	Telephone	0.15	0.15
b	Lease rent		
c	Electricity	0.03	0.03
d	AICTE, if applicable		
e	MCI, if applicable		
f	Others (to be specified)	0.53	0.53
6	Income Accrued		
a	On investments from earmarked/endowment funds GPF/CPF	67.19	56.06
b	On investments - FDR's	63.63	16.70
c	Others - GOI - Restricted Fund (Includes income due unrealized-Rs.....)	0.89	0.77
7	Other recoverable		
a	Debit balances in Sponsored projects		
b	Debit balances in Fellowship & scholarship		
c	Grants recoverable		
d	Others recoverable - Debtors	-	0.16
8	Claims Recoverable		
TOTAL		197.58	135.81

**National Institute of Technical Teachers Training and Research
Sector 26, Chandigarh**

SCHEDULE 11- ACADEMIC RECEIPTS

(RUPEES IN LAKH)

		Current year		Previous year	
		PLAN	NON PLAN	PLAN	NON PLAN
FEE FROM STUDENTS					
<u>Academic</u>					
1	Tuition Fee	-	-		
2	Admission Fee - ME & Ph.D	-	121.50		137.40
3	Enrolment Fee	-	-		
4	Library Admission fee	-	-		
5	Library Fee	-	-		
6	Art & Craft fee	-	-		
7	Registration fee - under various courses	-	10.72		49.11
8	Syllabus fee	-	-		
	Total (A)	-	132.22		186.51
		Current year		Previous year	
<u>Examinations</u>					
1	Admission test fee				
2	Annual Examination fee				
3	Mark sheet, certificate fees				
	Total (b)				-
		Current year		Previous year	
<u>Other fees</u>					
1	Identity card fee	-			-
2	Fine/ Miscellaneous fee				
3	Medical Fee				
4	Transportation fee				
5	Hostel fee				
	Total (c)	-			-
		Current year		Previous year	
<u>Sale of publications</u>					
1	sale of syllabus and question paper, etc		-		0.05
2	Sale of prospectus including admission forms	-	6.22		4.92
	Total (d)	-	6.22		4.97
Grand Total (A+B+C+D)		-	138.44		191.48

SCHEDULE - 12 GRANTS & DONATIONS

		Current year		Previous year	
		PLAN	NON PLAN	PLAN	NON PLAN
1	Central Government	325.00	1,371.00	230.00	1,315.00
2	State Government(s)				
3	Government Agencies				
4	Institutions/Welfare Bodies				
5	International Organisations				
6	Others (Specify)				
	TOTAL	325.00	1,371.00	230.00	1,315.00

SCHEDULE 13 - INCOME FROM INVESTMENTS

(RUPEES IN LAKH)

	Current year		Previous year	
	PLAN	NON PLAN	PLAN	NON PLAN
a) On govt. Securities				
b) Other Bonds/Debentures				
2) Income Received				
a) Each fund separately				
3) Income accrued				
a) Each fund separately				
4) Others (specify)				
TOTAL				
TRANSFERRED TO EARMARKED				
/ENDOWMENT FUNDS				
Investments from Earmarked /Endowment fund				
1) Interest				
a) On Govt. Securities				
b) Other bonds /debentures				
2) Income Received				
a) Each fund separately				
3) Income Accrued				
a) Each fund separately				
4) Others (specify)				
TOTAL				

Sd/-
Accounts Officer
NITTTR, Chandigarh

Sd/-
Director
NITTTR, Chandigarh

SCHEDULE 14 - OTHER INCOME

(RUPEES IN LAKH)

		Current year		Previous year	
		PLAN	NON PLAN	PLAN	NON PLAN
A	1 Hostel room rent	-	42.59		26.96
	2 Licence fee - Residential Houses & AICTE Hire Charges of Auditorium/ Play ground/ Convention Centre. Etc.		7.00		6.77
	3 Electricity & water charges	-	1.39		5.80
	Total				
B	Sale of Institute`s publications	-	0.86		0.79
C	Income from holding events				
	1 Gross Receipts from annual function/sports carnival less: Direct expenditure incurred on the annual function/ sports carnival		(4.87)		-
	2 Gross Receipts from fetes less: Direct expenditure incurred on the fetes				
	3 Gross Receipts for educational tours less: direct expenditure incurred on the tours				
	4 Others (to be specified and separately disclosed)				
	Total				
D	Interest on Term Deposits:-				
	a) With Scheduled		86.29		69.64
	b) With Non Schedule Banks				
	c) With Institutions				
	d) Others				
E	Interest on Savings Accounts:				
	a) With Scheduled		16.26		-
	b) With Non Schedule Banks				
	c) With Institutions				
	d) Others				
F	Interest on Loans				
	a) Employees staff		3.67		3.53
	b) Others				
G	Interest on Debtors and Other Receivables	-			-
H	Others				
	1. Income from Consultancy	-	44.72		39.39
	2. RTI fees	-	0.08		0.08
	3. Income from Royalty	-	4.30		0.55
	4. Sale of application form (recruitment)				
	5. Misc. Receipts (Sale of tender form, waste paper etc.)	-	42.00		24.03
	6. Profit on sale/ disposal of Assets				
	a) Owned Assets				
	b) Assets acquired out of grants, or received out of grants				
GRAND TOTAL (A+B+C+D+E+F+G+H)		-	244.29		177.54

SCHEDULE 15 – STAFF PAYMENTS & OTHER PAYMENTS

	(RUPEES IN LAKH)			
	Current Year		Previous Year	
	PLAN	NON PLAN	PLAN	NON PLAN
a Salaries & wages	142.73	1,278.05	124.81	1,165.08
b Allowances and Bonus	0.42	3.59		4.22
c Contribution to CPF		1.59		1.53
d Contribution to Other fund - NPS, Gratuity, Leave Enc.	-	176.85		181.71
e Staff Welfare Expenses				
f Retirement and Terminal Benefits to Retirees		32.55		43.69
g LTC facility	-	31.87		12.81
h Medical facility	-	21.16		27.24
i Children Education Allowance	-	10.62		11.97
j Honorarium	13.81	14.22	18.11	16.47
k TA/DA expenses	138.60	54.38	102.82	32.76
l Others (specify)	-	24.8		8.05
TOTAL	295.56	1,649.68	245.74	1505.53

SCHEDULE 16 – ACADEMIC EXPENSES

	(RUPEES IN LAKH)			
	Current Year		Previous Year	
	PLAN	NON PLAN	PLAN	NON PLAN
a Laboratory expenses				0
b Field work/ participation				
c Seminar/Workshop	-	4.1	-	9.31
d Payment to visiting faculty				
e Examination				
f Student Welfare Expenses				
g Admission expenses				
h Convocation expenses				
i Publications				
j Stipend/means- cum-merit scholarship	-	2.30		0.05
k Subscription expenses		16.18		
l Others (specify)	-			-
Total	-	22.58	0	9.36

Sd/-
Accounts Officer
NITTTR, Chandigarh

Sd/-
Director
NITTTR, Chandigarh

SCHEDULE 17 – ADMINISTRATIVE & GENERAL EXPENSES

		(RUPEES IN LAKH)			
		Current Year		Previous Year	
		PLAN	NON PLAN	PLAN	NON PLAN
a	Electricity and power	-	63.16	3.38	42.41
b	Water charges				
c	Insurance				
d	Rent, rates and taxes (incl. property tax)		2.64		2.64
e	Postage & telegram		3.21		2.77
f	Telephone and internet charges		3.73		5.02
g	Printing & stationary	1.23	6.78		7.38
j	Hospitality		0.12		0.04
k	Auditors Remuneration		1.54		0
l	Professional charges		4.99		3.11
m	Advertisement and publicity		5.49		4.56
n	Magazines & journals	-	7.02		0.34
o	Others (specify)	11.22	361.19	-	323.32
Total		12.45	459.87	3.38	391.59

SCHEDULE 18 – TRANSPORTATION EXPENSES

		(RUPEES IN LAKH)			
		Current Year		Previous Year	
		PLAN	NON PLAN	PLAN	Non Plan
1	Vehicles (owned by educational institution)				
	a) Running expenses				
	b) Repairs & maintenance	4.73			3.32
	c) Insurance expenses				
2	Vehicles taken on rent/lease				
	a) Rent/lease expenses				
TOTAL		4.73			3.32

SCHEDULE 19 – REPAIR & MAINTENANCE

		(RUPEES IN LAKH)			
		Current Year		Previous Year	
		PLAN	NON PLAN	PLAN	NON PLAN
a	Building	67.76		2.33	48.59
b	Furniture & fixture	1.46			1.49
c	Plant & Machinery	12.13			0
d	Office Equipments	2.31			1.43
e	Cleaning material & services				
f	Others (specify)	-	42.89	6.36	41.47
TOTAL		83.66	42.89	8.69	92.98

SCHEDULE 20 – FINANCE COSTS

	(RUPEES IN LAKH)			
	Current Year		Previous Year	
	Plan	Non Plan	Plan	Non Plan
a	Interest on fixed loans			
b	Interest on other loans			
c	Bank charges			
	Others (specify) Income tax penalty, Late payment			
d		5.89	0	0
		0.49		0.49
TOTAL		5.89		0.49

SCHEDULE 21 – OTHER EXPENSES

	(RUPEES IN LAKH)			
	Current Year		Previous Year	
	Plan	Non Plan	Plan	Non Plan
a	Provision for Bad & doubtful debts/ advances			
b	Irrecoverable balances written- off			
	Others (specify) Prev. year Dist. & Staff Welfare			
c		3.22		0
TOTAL		3.22		0

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 & PAYMENT ACCOUNT FOR THE YEAR ENDED
31st MARCH, 2014**

(RUPEES IN LAKH)

A RECEIPTS

	Current Year		Previous Year	
	PLAN	NON PLAN	PLAN	NON PLAN
I Balance at the beginning of the year				
Cash in hand		2.10		6.60
Temporary Imprest		3.35		0.38
Balance in Bank		171.04		16.23
Deposit Account		1,052.41		1,202.26
Interest accrued on FDR		-		26.45
FDR- Against Letter of Credit		30.35		-
Total Cash		1,259.25		1,251.92
II Grants-in-aid received from Govt. of India				
On Capital Account-Creation of Capital Assets	895.00	-	480.00	-
On Revenue Account	325.00	1,371.00	230.00	1,315.00
Grant from AICTE for Computer Science	32.85	-	-	-
Grant from TEQIP-II - World Bank Project	100.00	-	-	-
Grant- under RPS By AICTE	13.33	-	-	-
Grant under - Sponsored Project for Computer Science.	39.50	-	-	-
Amount awarded by GOI	2.00	-	-	-
Total Grants	1,407.68	1,371.00	710.00	1,315.00
III Deposits (including Consultancies) (as annexure-I)	-	635.74	-	537.81
IV Internal Resources				
a Interest Account				
Interest earned on S/B Account & FDR	-	55.53	-	52.59
Interest received on advances to staff	-	3.67	-	3.53
Total	-	59.20	-	56.12
b Rental Receipts				
Rent from residential Houses	-	6.32	-	6.98
Rent from Auditorium	-	0.14	-	8.64
Rent from Hostel	-	42.59	-	26.96
Rent from AICTE	-	0.84	-	0.84
Rent from Mess/Canteen	-	0.24	-	0.08
Total	-	50.13	-	43.50
c Fee Receipts				
Fee from ME Students	-	124.90	-	134.00
Fee under various courses	-	12.88	-	49.11
Total	-	137.78	-	183.11

Institute Receipts (Misc.)		6.85	-	0.24
Recovery against books		0.09	-	0.05
Receipt from Publication		0.86	-	0.79
Sale of Newspaper & Periodicals		-	-	-
Sale proceeds of fixed assts		11.98	-	0.29
Receipt from consultancy share		47.70	-	37.08
Royalty share		0.74	-	0.55
Sale proceeds of Prospects		6.22	-	4.92
Ph-D Fee		3.75	-	3.40
Penal Interest		0.01	-	0.05
Overhead charges		38.37	-	22.21
RTI Fee		0.08	-	0.08
Photocopy charges		0.45	-	0.45
Sundry Creditors		-	-	9.08
Written off Securities		-	-	1.08
Total		117.10	-	80.27
e Other Receipts				
Recovery of Loans & Advances	1.73	4.99	1.39	6.35
Time barred cheques	-	-	-	-
Permanent Imprest	-	-	-	-
Pension & Leave salary contribution	-	-	-	-
Total	1.73	4.99	1.39	6.35
Total Receipts	1.73	369.20	1.39	369.35
V SPONSORED PROJECTS				
AICTE QIP Poly	36.79	-	18.07	-
IT-Bionery Project	-	-	5.15	-
DST NIMAT - I	0.30	-	1.23	-
DST NIMAT - II	1.51	-	-	-
Inspire Fellowship - Academic Cell	2.85	-	-	-
CT-13 Mech. for CTU	25.62	-	-	-
PBR 12- PWD PBR	8.71	-	60.41	-
PADB	53.84	-	56.24	-
SADB 13	49.45	-	-	-
PSCB - 13 - Mech.	253.88	-	-	-
DASA	0.50	-	-	-
National Handicap Projects/ Fin. Dev.	0.45	-	-	-
5.13 ETV Video Film for Shimla	-	-	1.75	-
5.13 ETV IGNOU	2.94	-	1.03	-
5.13 ETV Video Film for Palampur	-	-	2.00	-
5.13 ETV Video Film for Kapurthala	0.24	-	-	-
Ph.D Academic Fee	-	-	0.40	-
DIL- RD	2.28	-	-	-
ETV - Misc.	0.18	-	-	-
PSCB - Computer Science	4.45	-	-	-
Others	96.13	-	5.55	-
Total	540.12	-	151.83	-
Grand Total	3,208.78	2,375.94	2,115.14	2,222.16
Total Plan and Non Plan	5,584.72	-	4,337.30	-

B	PAYMENTS	Current Year		Previous Year	
		PLAN	NON PLAN	PLAN	NON PLAN
I	Non Recurring				
	Renovation of buildings	52.68	-	21.50	-
	Advance renovation with CPWD (8 works)	-	-	30.00	-
	Equipment purchased during the year	526.90	-	267.38	-
	Advance adjusted for water lane pipe	-	-	(1.49)	-
	Re-surfacing of Roads	15.41	-	77.97	-
	Software for Library	-	-	-	-
	Equipment - Sponsored Project	-	-	-	-
	Library Books	2.64	-	5.67	-
	Library Journal	9.51	-	-	-
	Renovation of Electrical	-	-	8.78	-
	Fire Fighting to CPWD	13.00	-	-	-
	Furniture purchased during the year	23.50	-	12.28	-
	Installation of Electrical Power Generator	-	-	73.50	-
	Installation of Water pipe Line	-	-	1.44	-
	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	-	-	-
	Total	894.85		497.03	-
II	RECURRING				
a	Establishment expenses				
	Salaries-Pay & Allowances to:				
	Faculty	81.25	488.73	72.52	462.99
	Technical Non Teaching/C&D Staff	50.17	442.62	51.62	465.28
	Salary - Outsourced Person	-	85.12	-	-
	Bonus	0.42	3.59	-	4.22
	Dearness allowance	3.50	25.00	2.13	17.22
	LTC	-	31.87	-	7.59
	Medical treatment charges	-	21.16	-	27.24
	Reimbursement of cost of books	-	0.72	-	0.80
	Institute Share-(CPF)	-	1.59	-	1.53
	Pension - Faculty	-	110.24	-	101.77
	Pension - C & D	-	140.63	-	121.93
	Pension & Retirement benefits to retirees	-	32.55	-	43.69
	Gratuity	-	36.78	-	41.80
	Leave encashment-for LTC	-	11.72	-	5.22
	Leave encashment	-	17.31	-	25.30
	Leave Salary & Pension Contribution	-	3.42	-	-
	New Pension Fund	-	26.07	-	32.30
	Professional Development Allowance	-	8.24	-	7.25
	Tuition Fee	-	10.62	-	11.97
	Secretarial Assistance	-	0.26	-	-
	Arrear MACP	-	7.49	-	2.14
	Total	135.34	1,505.73	126.27	1,380.24

b Other Payments				
Over time allowance	-	0.44	0.10	0.66
Library Books	-	0.46	2.91	7.97
Library Journals	-	8.93	4.34	0.17
TA including STC	134.54	16.71	101.77	18.44
TA to BOG/Experts	-	3.30	-	-
Stipend	-	2.12	-	0.05
Fee & Honorarium	19.81	27.95	18.11	16.47
Total	154.35	59.91	127.23	43.76
c Administrative Expenses				
Property Tax	-	2.64	-	2.64
Printing & Stationery	1.23	8.57	0.21	6.05
Liveries	-	0.45	-	0.81
Hindi Day	-	0.49	-	0.25
Independence/Vishwakarma day	-	0.09	-	0.44
Contingencies various labs.(Academic)	2.85	5.60	5.11	29.47
Advertisement	-	5.49	-	4.56
Teachers Day	-	0.29	-	0.02
Annual Sports	-	4.87	-	-
Vigilance Day	-	0.02	-	-
News Paper & Periodicals	-	0.88	-	0.34
Annual Day celebrations	-	3.21	-	1.36
Postage & Telegrams	-	3.21	-	2.23
Telephone Trunk call charges	-	3.58	-	2.83
Entertainment & Contingencies	-	0.46	-	1.02
Reference Books	-	-	-	-
Legal /Professional charges	-	3.50	-	1.47
Library Contingencies	-	1.29	-	0.94
Ground Rent	-	0.59	-	0.59
Printing of Publication	-	-	-	-
Audit Fee	-	1.54	-	1.54
Library Membership	-	-	-	-
Misc. Expenses(Office)	-	7.69	-	4.38
Interest on TDS	-	-	-	0.62
Interest on Service Tax	-	-	-	0.49
Overhead Expenses	-	0.54	-	-
ISO 9001-2008	-	0.15	-	0.51
Total	4.08	55.15	5.32	62.56
d Operation & Maintenance				
Mtc Student centre	-	3.79	-	9.18
Mtc Electrical	-	21.27	-	5.64
Mtc Electrical lab	-	4.06	-	0.75
Mtc Rural Development	-	1.05	-	0.51
Mtc Media	-	3.15	-	1.97
Mtc ETV Lab	-	3.86	5.25	7.42
Mtc Civil Lab	-	5.15	-	5.54
Mtc Phones & Communications	-	2.31	-	1.43
Mtc. Electronics & Communications	-	0.67	-	0.42
Mtc Guest House	-	1.40	-	1.99

Mtc Furniture	-	1.46	-	1.49
Mtc Buildings	-	44.98	2.33	38.16
Mtc Campus	-	1.16	-	0.64
Mtc Vehicle	-	4.73	-	3.32
Mtc Curriculum Development Centre	-	-	-	0.55
Mtc Ref. & air conditioning lab	-	7.63	-	3.96
Electricity & Water Charges	-	54.56	3.38	38.80
Rapair of Machinery	-	0.11	-	-
Mtc EDIC Lab	-	0.25	-	0.06
Mtc Electronics Service Centre	-	0.80	-	1.27
Mtc Hostel	-	2.41	-	0.59
Mtc Computer Sc. Lab.	-	3.09	0.04	6.23
Mtc Mechanical Engineering Lab	-	1.03	1.00	0.90
Mtc Education & Educational Lab	-	0.33	-	0.33
Mtc Applied Sc. Lab	-	0.60	0.07	1.11
Loans & Advances to staff	-	3.91	-	5.93
Mtc Sports	-	-	-	7.24
Purchase of Medicines	-	0.12	-	0.04
Internet Connectivity	-	0.16	-	2.17
Mtc Institute Generator	-	7.79	-	-
Mtc Subscription fee for Library software	-	-	21.57	-

Total	-	181.83	33.64	147.64
Total Payments	1,188.62	1,802.62	789.49	1,634.20

e Sponsored Projects

3.2.14 ETV	0.08	-	-	-
Customized AICTE Sponsored Project	2.47	-	-	-
ETV 5.13 Video Film Shimla	-	-	0.01	-
IT Bionery- AICTE Projects-RD	0.31	-	7.12	-
Eco-Water literacy- RD	2.23	-	2.23	-
AICTE QIP Poly	19.49	-	18.74	-
PBR 12	24.40	-	33.95	-
5.13 ETV Kapurthala	-	-	0.24	-
5.13 ETV Palampur	1.40	-	0.09	-
DST - Nimmat - I	2.76	-	-	-
DST - Nimmat - II	0.96	-	-	-
Ph. D Fee Academic Cell	-	-	3.19	-
DIL Project	1.55	-	2.10	-
5.13 ETV IGNOU	1.26	-	0.43	-
GATE -AICTE Project	-	-	0.72	-
PADV Mechanical	-	-	40.84	-
PADB -13	74.24	-	-	-
5.12 ETV Training Programme	0.16	-	-	-
Inspire Fellowship - Academic Cell	2.86	-	-	-
SADB -13	46.94	-	-	-
PSCB - 13	101.77	-	-	-
1.2.207 - SIRD	0.04	-	-	-
CT 13	6.64	-	-	-
Others	20.70	-	-	-
Total	310.26	-	109.66	-

f	TEQIP-II				
	T.A.	18.24			
	Consumables	0.38			
	Salaries	2.41			
	Equipment	40.79			
	Stipend	9.98			
	Honorarium	1.20			
	Total	73.00	-	-	-
g	RPS- AICTE				
	Consumables	0.29	-	-	-
	Equipment	12.23	-	-	-
	Total	12.52	-	-	-
h	Deposits (including consultancies)-annex-1	-	629.39	-	544.70
	Cash Balance				
	Cash in hand	11.10		2.10	
	Temporary Imprest	11.19		3.35	
	Bank Balance	293.55		171.04	
	Fixed Deposits	1,252.47		1,052.41	-
	FDR- Against Letter of Credit	-		30.35	
	Interest Accrued on FDR	-		-	
	Total Cash	1,568.31		1,259.25	-
	Total	3,152.71	2,432.01	2,158.40	2,178.90
	Total Plan and Non Plan	5,584.72		4,337.30	

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**National Institute of Technical Teachers Training and Research
Sector 26, Chandigarh**

SCHEDULE OF DEPOSITS AS ON 31st MARCH, 2014

A	Consultancy Project	Opening Bal.	Receipt	Paid	Net Balance
1	5.14 Civil Consultancy	766,470.00	6,184,474.50	6,204,616.00	746,328.50
2	IMCO Consultancy SPIC	189,799.00	-	-	189,799.00
3	IMCO Toss	262,500.00	204,748.00	-	467,248.00
4	Hindi consultancy		30,000.00	-	30,000.00
	Total	1,218,769.00	6,419,222.50	6,204,616.00	1,433,375.50
B	Other Deposit	Opening Bal.	Receipt	Paid	Net Balance
1	Alumni Association	40,500.00	65,500.00	-	106,000.00
2	Distribution Fund	1,429,156.83	1,991,278.00	1,411,307.00	2,009,127.83
3	Earnest Money	3,870,852.86	2,471,000.00	2,861,151.00	3,480,701.86
4	Examination Fee	17,900.00	373,771.00	1,105,300.00	(713,629.00)
5	Income Tax Firms	116,146.00	576,501.00	446,827.00	245,820.00
6	Misc Deposit Auditorium	-	113,570.00	86,178.00	27,392.00
7	Royalty to Authors	809,337.77	119,182.50	776,407.77	152,112.50
8	Service Tax	385,853.00	8,177,898.00	8,182,965.00	380,786.00
9	Staff Welfare Fund	238,246.00	603,418.00	331,447.00	510,217.00
10	I. Tax experts	-	165,470.00	130,325.00	35,145.00
11	Ground rent from employees	-	35,000.00	20,000.00	15,000.00
	Total	6,907,992.46	14,692,588.50	15,351,907.77	6,248,673.19
C	Recovery and Deductions	Opening Bal.	Receipt	Paid	Net Balance
1	CTD	-	345,100.00	345,100.00	-
2	Farewell Faculty	-	7,900.00	7,900.00	-
3	GPF	-	22,665,240.00	22,665,240.00	-
4	Group Insurance	-	786,470.00	699,934.00	86,536.00
5	Income Tax Staff	450,737.00	12,166,076.00	12,140,488.00	476,325.00
6	LIC-NP	-	999,711.00	999,711.00	-
7	New Pension Fund Subscription	-	2,606,823.00	2,606,823.00	-
8	Welfare Faculty C and D	-	203,700.00	203,700.00	-
9	I. Tax Retirees	-	783,538.00	783,538.00	-
10	Others	-	212,916.00	193,944.00	18,972.00
	Total	450,737.00	40,777,474.00	40,646,378.00	581,833.00
D	Security of firms	Opening Bal.	Receipt	Paid	Net Balance
1	Library Security	5,000.00	-	5,000.00	-
2	Retention Money of Vijay Garg	95,875.00	-	-	95,875.00
3	Sec. of Binder	2,000.00	1,000.00	-	3,000.00
4	Sec. of Daksh Detective & Security	234,094.00	274,130.00	-	508,224.00
5	Sec. of Golden Eagle	41,432.00	-	-	41,432.00
6	Sec. of Krishan Kumar Washer man	2,000.00	2,000.00	-	4,000.00
7	Sec. of Krishna Stationers	4,700.00	-	-	4,700.00

8	Sec. of Mann Electric Works	10,000.00	-	-	10,000.00
9	Sec. of ME Students.	4,037,701.00	1,310,000.00	704,800.00	4,642,901.00
10	Sec. of national Small Industries	15,472.00	-	-	15,472.00
11	Sec. of Ph.D Students.	197,066.00	-	-	197,066.00
12	Sec of Project associate	16,521.00	2,000.00	3,000.00	15,521.00
13	Sec. of Punj Security & House Keeping	25,482.00	-	-	25,482.00
14	Sec. of Sanchi Security Company	3,383.00	-	-	3,383.00
15	Sec. of Satish Aggarwal	13,770.00	-	-	13,770.00
18	Sec. of Vijai Garg	3,635,948.72	-	-	3,635,948.72
19	Service Tax Examination Fees	3,926.00	-	-	3,926.00
20	Sec. of Nand Kishore	7,270.00	-	-	7,270.00
21	Advanced Tech	9,000.00	-	-	9,000.00
22	Kamal kumar builder	19,682.00	69,727.00	-	89,409.00
23	Baving stone co	4,802.00	18,831.00	23,633.00	-
24	Sec of Mohd sakur	-	7,121.00	-	7,121.00
Total		8,385,124.72	1,684,809.00	736,433.00	9,333,500.72

ABSTRACT

1	Total -A	1,218,769.00	6,419,222.50	6,204,616.00	1,433,375.50
2	Total -B	6,907,992.46	14,692,588.50	15,351,907.77	6,248,673.19
3	Total -C	450,737.00	40,777,474.00	40,646,378.00	581,833.00
4	Total -D	8,385,124.72	1,684,809.00	736,433.00	9,333,500.72
Total		16,962,623.18	63,574,094.00	62,939,334.77	17,597,382.41

Sd/-
Accounts Officer
NITTTR, Chandigarh

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Director
NITTTR, Chandigarh

**National Institute of Technical Teachers Training and Research
Sector 26, Chandigarh**

BALANCE SHEET GPF/CPF AS AT 31st MARCH, 2014

(RUPEES IN LAKH)

LIABILITIES		ASSETS	
GPF as per ledger	1,088.09	FDRs	1,296.35
CPF as per ledger	160.41	Saving Bank Account	26.58
Institute contributions- CPF	113.80	Sundry Debtors	1.13
Dead Account	0.02	Interest accrued on	67.19
Excess of Interest	28.93	FDR up to 31.3.2014	
Total	1,391.25	Total	1,391.25

**Sd/-
Accounts Officer
NITTTR, Chandigarh**

**Sd/-
Director
NITTTR, Chandigarh**

**National Institute of Technical Teachers Training and Research
Sector 26, Chandigarh**

CASH BOOK ACCOUNT GPF/CPF AS AT 31st MARCH, 2014

(RUPEES IN LAKH)

Opening Balance as on 1.4.2013		1,208.26
Subscription during the year		
GPF as per ledger	222.77	
CPF as per ledger	1.98	
Institute Contribution	1.59	226.34
 Add : Interest on S/A & FDR		 48.36
 Less :-		
GPF	160.03	
CPF	-	
Institute share	-	160.03
 Total		 1,322.93

Sd/-
Accounts Officer
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Sd/-
Director
NITTTR, Chandigarh

**National Institute of Technical Teachers Training and Research
Sector 26, Chandigarh**

INTEREST ACCOUNT - GPF/CPF AS AT 31st MARCH, 2014

(RUPEES IN LAKH)

Opening Balance	75.95
Interest allowed by Bank during the year	48.36
Interest accrued during the year	67.19
Add : Interest accrued on Advance	0.06
Less Interest allowed to the subscriber during the year GPF	-84.82
Less Interest allowed to the subscriber during the year CPF	-12.77
Less Interest allowed to the subscriber during the year CPF Institute Share	-8.98
Less interest accrued on FDR during previous year	-56.06
<hr/>	
TOTAL	28.93

**Sd/-
Accounts Officer
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**Sd/-
Director
NITTTR, Chandigarh**

**National Institute of Technical Teachers Training and Research
Sector 26, Chandigarh**

BALANCE SHEET – NEW PENSION SCHEME AS AT 31st MARCH, 2014

(RUPEES IN LAKH)

LIABILITIES	ASSETS
NPS as per ledger	-
Excess of Interest	2.98
Total	2.98
	Saving Bank Account
	1.10
	Amount Recoverable from Bank
	1.88
	Interest Recoverable from bank
	-
	Total
	2.98

Sd/-
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Sd/-
Director
NITTTR, Chandigarh

**National Institute of Technical Teachers Training and Research
Sector 26, Chandigarh**

CASH BOOK ACCOUNT – NEW PENSION SCHEME AS AT 31st MARCH, 2014

		(RUPEES IN LAKH)
Opening Balance as on 1.4.2013		1.06
Subscription during the year		
Employee Share	26.04	
Institute Contribution	<u>26.04</u>	52.08
Add: Interest Allowed by Bank		0.12
Less :-		
Share - Remitted		52.08
Service Charges		0.08
Total		1.10

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**Sd/-
Director
NITTTR, Chandigarh**

**National Institute of Technical Teachers Training and Research
Sector 26, Chandigarh**

INTEREST ACCOUNT – NEW PENSION SCHEME AS AT 31st MARCH, 2014

(RUPEES IN LAKH)	
Opening Balance	2.96
Interest allowed by Bank during the year	0.10
Less : Service Charges	-0.08
TOTAL	2.98

Sd/-
Accounts Officer
NITTTR, Chandigarh

Sd/-
Director
NITTTR, Chandigarh

NEW PENSION SCHEME FOR THE YEAR ENDED 31st MARCH, 2014

Sr. no.	Name	Employee Share					Employer Share					Closing Balance
		OB	Contb	W/d Intt.	Withdrawal Trf to CRA	Total	OB	Share	W/d Intt.	Withdrawal Trf to CRA	Total	
1	S S Pattniak	-	150,068.00		150,068.00	-	-	150,068.00	-	150,068.00	-	-
2	S S Dhami	-	123,882.00		123,882.00	-	-	123,882.00	-	123,882.00	-	-
3	P S Rao	-	66,894.00		66,894.00	-	-	66,894.00	-	66,894.00	-	-
4	Swapna Devi	-	20,236.00		20,236.00	-	-	20,236.00	-	20,236.00	-	-
5	Ritula Thakur	-	58,716.00		58,716.00	-	-	58,716.00	-	58,716.00	-	-
6	Amit Goyal	-	59,542.00		59,542.00	-	-	59,542.00	-	59,542.00	-	-
7	Gaima Saini	-	59,477.00		59,477.00	-	-	59,477.00	-	59,477.00	-	-
8	Deepak Parsad	-	19,300.00		19,300.00	-	-	19,300.00	-	19,300.00	-	-
9	Pardeep Kumar	-	61,919.00		61,919.00	-	-	61,919.00	-	61,919.00	-	-
10	Tejwant Singh	-	19,484.00		19,484.00	-	-	19,484.00	-	19,484.00	-	-
11	Jagan Nath	-	19,484.00		19,484.00	-	-	19,484.00	-	19,484.00	-	-
12	Amrender sharan	-	51,284.00		51,284.00	-	-	51,284.00	-	51,284.00	-	-
13	Shimi S L	-	51,217.00		51,217.00	-	-	51,217.00	-	51,217.00	-	-
14	Mala Kalra	-	51,217.00		51,217.00	-	-	51,217.00	-	51,217.00	-	-
15	Himmi Gupta	-	42,673.00		42,673.00	-	-	42,673.00	-	42,673.00	-	-
16	Poonam Saini	-	-		-	-	-	-	-	-	-	-
17	Kanika Sharma	-	63,552.00		63,552.00	-	-	63,552.00	-	63,552.00	-	-
18	Amar Dev	-	49,720.00		49,720.00	-	-	49,720.00	-	49,720.00	-	-
19	Komal	-	15,552.00		15,552.00	-	-	15,552.00	-	15,552.00	-	-
20	PK Tulsi	-	158,745.00		158,745.00	-	-	158,745.00	-	158,745.00	-	-
21	Suresh Gupta	-	127,612.00		127,612.00	-	-	127,612.00	-	127,612.00	-	-
22	KM Rastogi	-	-		-	-	-	-	-	-	-	-
23	S chatterjee	-	158,745.00		158,745.00	-	-	158,745.00	-	158,745.00	-	-
24	J S Saini	-	158,745.00		158,745.00	-	-	158,745.00	-	158,745.00	-	-
25	DD Sharma	-	50,763.00		50,763.00	-	-	50,763.00	-	50,763.00	-	-
26	SP Bedi	-	154,922.00		154,922.00	-	-	154,922.00	-	154,922.00	-	-
27	A K Duggal	-	148,371.00		148,371.00	-	-	148,371.00	-	148,371.00	-	-
28	Lini Methew	-	127,612.00		127,612.00	-	-	127,612.00	-	127,612.00	-	-
29	Bakshish Singh	-	120,265.00		120,265.00	-	-	120,265.00	-	120,265.00	-	-
30	Man Mohan Singh	-	116,754.00		116,754.00	-	-	116,754.00	-	116,754.00	-	-
31	RK Goyal	-	58,212.00		58,212.00	-	-	58,212.00	-	58,212.00	-	-
32	Surinder Singh	-	44,421.00		44,421.00	-	-	44,421.00	-	44,421.00	-	-
33	KS Rana	-	35,259.00		35,259.00	-	-	35,259.00	-	35,259.00	-	-
34	BS Pabla	-	158,745.00		158,745.00	-	-	158,745.00	-	158,745.00	-	-
		-	2,603,388.00	-	2,603,388.00	-	-	2,603,388.00	-	2,603,388.00	-	-

**National Institute of Technical Teachers Training and Research
Sector 26, Chandigarh**

**BALANCE SHEET FOR THE PROJECTS SPONSORED BY THE GOVT. OF INDIA, MHRD AS AT
31st MARCH, 2014**

(RUPEES IN LAKH)

PARTICULARS	Current Year	Previous Year
LIABILITIES		
Capital/Corpus Fund	52.16	60.6
Less excess of expenditure over income	(7.75)	-8.21
Less : Prior Period Salary Expenditure	-	-0.08
Add: Prior Period Interest Accrued	-	0.48
Less : Prior Period FDR excess Shown	-	-0.63
	44.41	52.16
Current Liabilities & Provisions		
Salary Payable	0.08	0.06
TOTAL LIABILITIES	44.49	52.22
ASSETS		
Fixed Assets	32.83	38.60
Cash & Bank Balance	0.02	1.32
FDR's	10.75	11.53
Interest accrued on FDR	0.89	0.77
TOTAL ASSETS	44.49	52.22

Sd/-
Accounts Officer
NITTTR, Chandigarh

Sd/-
Director
NITTTR, Chandigarh

**National Institute of Technical Teachers Training and Research
Sector 26, Chandigarh**

**INCOME AND EXPENDITURE ACCOUNT FOR THE PROJECTS SPONSORED BY THE GOVT.
OF INDIA, MHRD FOR THE YEAR ENDED 31st MARCH, 2014**

(RUPEES IN LAKH)

	Current Year	Previous Year
INCOME		
Grant/subsidies		
From Government of India	-	-
Interest receipts	1.07	1.26
Total	1.07	1.26
EXPENDITURE		
Establishment Expenses	0.88	1.50
Contingencies /Consumables	0.68	0.60
T.A.	1.38	0.49
Honorarium	0.11	0.09
Depreciation	5.77	6.79
Total	8.82	9.47
Balance being deficit carried over	-7.75	-8.21

Sd/-
Accounts Officer
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**National Institute of Technical Teachers Training and Research
Sector 26, Chandigarh**

**RECEIPTS AND PAYMENTS ACCOUNT FOR THE PROJECTS SPONSORED BY THE GOVT. OF
INDIA, MHRD FOR THE YEAR ENDED 31st MARCH, 2014**

RECEIPTS	(RUPEES IN LAKH)	
	Current Year	Previous Year
Opening Balance	12.85	14.59
Less: Prior period Intt. Accrued	-	(0.45)
Interest receipt	0.95	1.41
Total Receipts	13.80	15.55

PAYMENTS	(RUPEES IN LAKH)	
	Current Year	Previous Year
Equipments	-	-
Recurring Expenses		
Establishment expenses	0.86	1.52
Contingencies/Consumables	0.68	0.60
T.A.	1.38	0.49
Honorarium	0.11	0.09
Total	3.03	2.70
Cash & Bank Balance :-	-	-
Deposits (including interest accrued)	10.75	11.53
Bank Balance	0.02	1.32
Total payments	13.80	15.55

Sd/-
Accounts Officer
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Sd/-
Director
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**National Institute of Technical Teachers Training and Research
Sector 26, Chandigarh**

FIXED ASSETS UNDER GOVT. OF INDIA, PROJECTS AS AT 31st MARCH, 2014

FIXED ASSETS- NET BLOCK AS PER SCHEDULE -4-A

(RUPEES IN LAKH)

PARTICULARS	Rate %	GROSS BLOCK					DEPRECIATION			NET BLOCK	
		Cost/evaluation as at beginning of the year	Additions before 30.9.2013	Additions after 30.9.2013	Deductions during the year	cost/value at the year end	As at the beginning of the year	On Additions of the year	Total at the year end	As at the current year end	As at the previous year end
Fixed Assets											
i Equipments	15	164.49	-	-	-	164.49	126.27	5.73	132.00	32.49	38.22
ii Furniture	10	0.99	-	-	-	0.99	0.62	0.04	0.66	0.33	0.37
iii Books	100	0.21	-	-	-	0.21	0.21	-	0.21	-	-
Gifted equipment	15	0.07	-	-	-	0.07	0.07	-	0.07	-	-
Grand Total		165.76	-	-	-	165.76	127.17	5.77	132.94	32.83	38.60

Sd/-
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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 restricted fund and sponsored projects.
4. The Fixed Assets have been valued as per book value.
5. 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.
6. Institute receives funds against Sponsored Projects and Consultancy Project which are shown as deposits in Schedule. The Institute recognizes its income on completion of project/consultancy.
7. Institute makes provision of employee benefits such as Leave Encashment and Gratuity on estimation basis.
8. 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)(iiiab).
2. The details of funds maintained by Institute:

1. Corpus Fund

(RUPEES IN LAKH)

Particulars	Current Year	Previous Year
Opening Balance	2615.55	2114.98
Add: Addition in Fund	897.00	500.57
Less: Utilization of Fund		
Closing Balance	3512.55	2615.55

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

2. General Fund

(RUPEES IN LAKH)

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

3. Designated/ Earmarked Fund

(RUPEES IN LAKH)

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

4. Restricted Fund

(RUPEES IN LAKH)

Particulars	Current Year	Previous Year
Opening Balance	52.16	60.60
Add: Addition in Fund	193.05	1.26
Less: Utilization of Fund	105.07	9.70
Closing Balance	140.14	52.16

3. The Goods including equipments, furniture etc. valuing Rs. 105.59 lakh and Rs. 66.57 lakhs were identified as obsolete/ unserviceable during the year 2011-12 & 2012-13 respectively. 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. 36.35 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. 2.10 lakh has been given effect in the Balance Sheet.
6. This is to certify that there is an unspent balance of Rs. 1568.31 lakh including FDRs worth Rs. 1252.31 lakh as on 31.3.2014.
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. 46.43 lacs is outstanding as on 31st March 2014.
9. Schedule one to Twenty one are annexed to and form an integral part of the Balance Sheet as on 31.3.2014.

10. During FY 2013-14, institute debited following prior period expenses:

Service Tax pertaining to previous financial years	Rs. 5.30 lac
Distribution and Staff welfare fund	Rs. 3.22 lac
Interest on late payment of TDS	Rs. 0.35 lac
Income Tax Penalty	Rs. 0.24 lac

11. Detail of Capital Work in Progress including capital advance of Rs. 548.49 lakh is as follows:

(RUPEES IN LAKH)

Purpose of Advance	Year of Advance	Amount
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 Purchase of Equipment	2013-14	44.10
Total		548.49

12. 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)

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