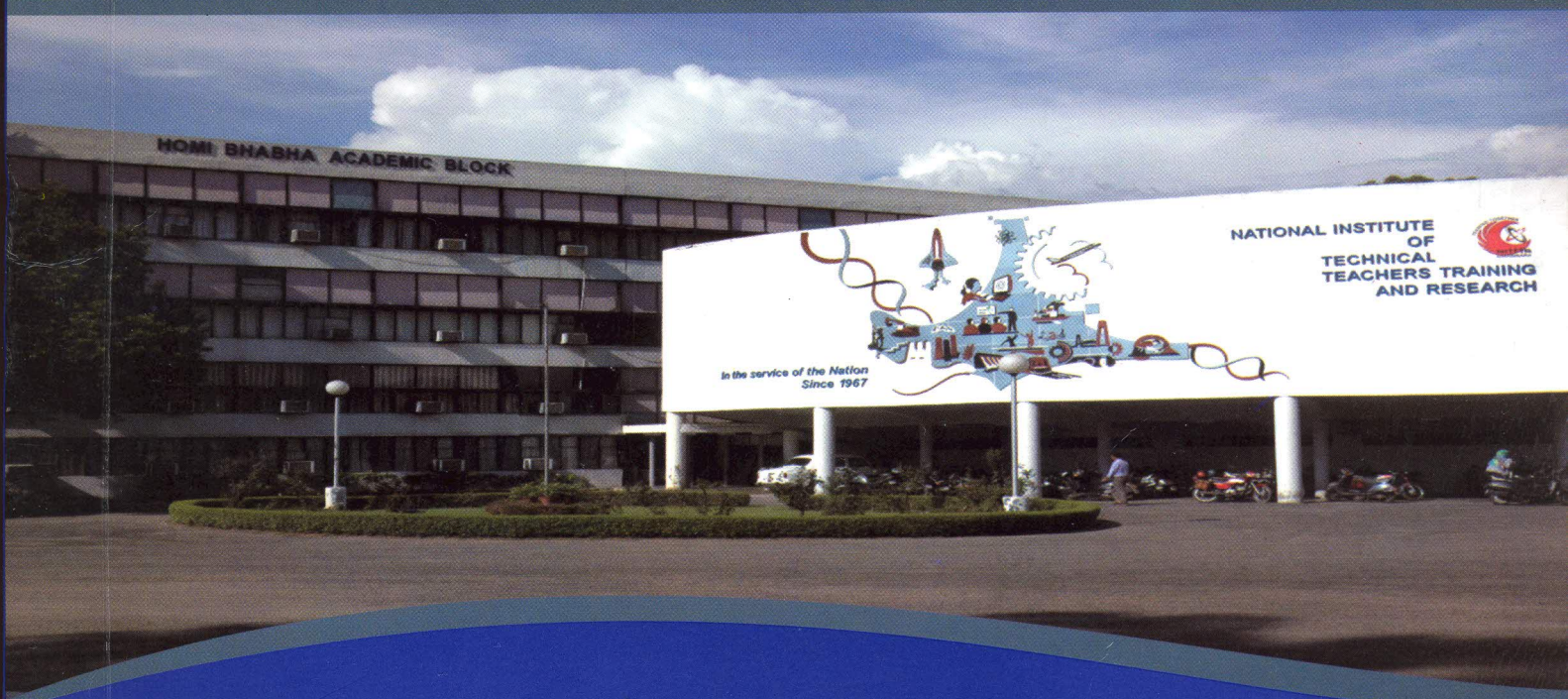


ANNUAL REPORT

2011-12

(Including annual accounts)



National Institute of Technical Teachers Training and Research

Sector-26 Chandigarh - 160019 (INDIA)
(An ISO 9001 : 2008 Certified Institute)

ANNUAL REPORT

(including annual accounts)

2011-12



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

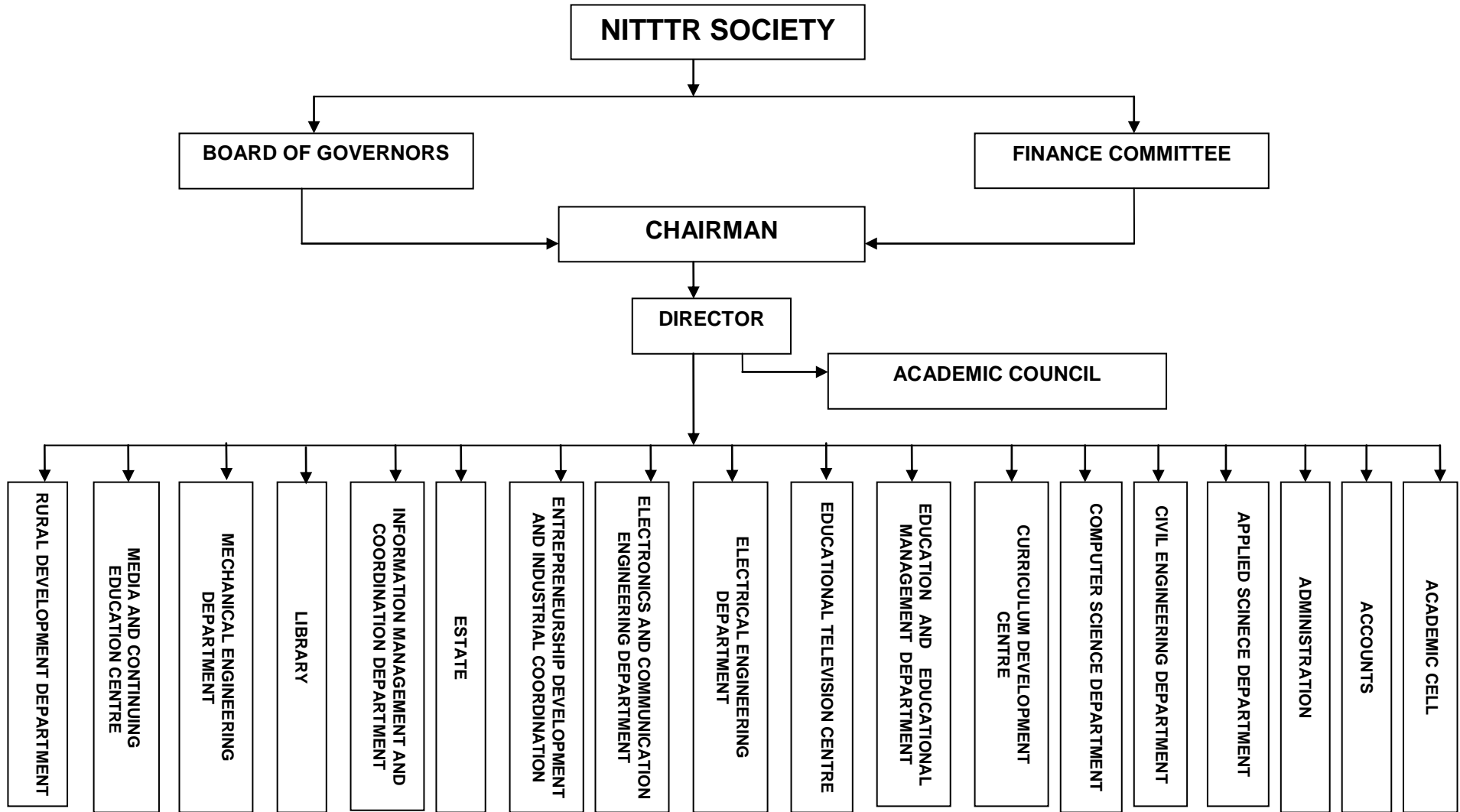
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ORGANISATIONAL STRUCTURE OF NITTTR CHANDIGARH



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**LIST OF MEMBERS OF THE NITTTR CHANDIGARH SOCIETY
AS ON 31.03.2012**

Sr. No.	Name and Designation with full address of the present incumbent	Status
1.	Dr. K K Talwar Chairman, Board of Governors, NITTTR, Chandigarh and President, National Academy of Medical Sciences (India), Ansari Nagar, Ring Road, New Delhi – 110 029	Chairman
2.	Shri A N Jha Joint Secretary and Financial Adviser (IFD), Department of Higher Education, Ministry of Human Resource Development, Government of India, Shastri Bhawan, New Delhi – 110 115	Member
3.	Shri N K Sinha, Additional Secretary (TEL), Department of Higher Education, Ministry of Human Resource Development, Government of India, Shastri Bhawan, New Delhi – 110 115	Member
4.	Mrs. Usha R Sharma, IAS Director, Technical Education and Industrial Training, Punjab, Takniki Shiksha Bhawan, Plot No.1, Sector 36-A, Chandigarh – 160 036	Member
5.	Dr. M K Hada Adviser – I Approval Bureau All India Council for Technical Education, 7 th Floor, Chander Lok Building, Janpath, New Delhi – 110 001	Member

Sr. No.	Name and Designation with full address of the present incumbent	Status
6.	Shri S Balasubramanyam, IAS Commissioner, Department of Technical Education, 5 th & 6 th Floor, BRKR Bhawan, Tankbund Road, Saifabad, Hydrabad – 500 063 (Andhra Pradesh)	Member
7.	Dr. Avtar Singh, IAS Director General, Directorate of Technical Education, Haryana, Bay No.7-12, Sector 4, Panchkula (Haryana) - 134 109	Member
8.	Dr. Manoj Datta Director PEC University of Technology Sector 12, Chandigarh – 160 012	Member
9.	Dr. Atul Bora Director, Directorate of Technical Education, Kahilipara, Guwahati – 781 019 (ASSAM)	Member
10.	Shri Anand Prakash, IAS Principal Secretary Govt. of NCT of Delhi Department of Training & Technical Education, Muni Maya Ram Marg, Near TV Tower, Pitam Pura, New Delhi – 110 088	Member
11.	Dr. K M Rastogi Director Incharge National Institute of Technical Teachers Training and Research, Sector 26, Chandigarh – 160 019	Member Secretary

**LIST OF MEMBERS OF THE BOARD OF GOVERNORS
AS ON 31.03.2012**

Sr. No.	Name and Designation with full address of the present incumbent	Status
1.	Dr. K K Talwar Chairman, Board of Governors, NITTTR, Chandigarh and President, National Academy of Medical Sciences (India), Ansari Nagar, Ring Road, New Delhi – 110 029	Chairman
2.	Shri A N Jha Joint Secretary and Financial Adviser (IFD), Department of Higher Education, Ministry of Human Resource Development, Government of India, Shastri Bhawan, New Delhi – 110 115	Member
3.	Shri N K Sinha Additional 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.	Mrs. Usha R Sharma, IAS Director, Technical Education and Industrial Training, Punjab, Takniki Shiksha Bhawan, Plot No.1, Sector 36-A, Chandigarh – 160 036	Member
6.	Shri S P Oswal Chairman, Vardhman Group of Companies, Ludhiana (Punjab) – 141001	Member

Sr. No.	Name and Designation with full address of the present incumbent	Status
7.	Dr. M K Hada Adviser – I Approval Bureau All India Council for Technical Education, 7 th Floor, Chander Lok Building, Janpath, New Delhi – 110 001	Member
8.	Shri S Balasubramanyam, IAS Commissioner, Department of Technical Education, 5 th & 6 th Floor, BRKR Bhawan, Tankbund Road, Saifabad, Hydrabad – 500 063 (Andhra Pradesh)	Member
9.	Dr. Avtar Singh, IAS Director General, Directorate of Technical Education, Haryana, Bay No.7-12, Sector 4, Panchkula (Haryana) - 134 109	Member
10.	Dr. Manoj Datta Director PEC University of Technology Sector 12, Chandigarh – 160 012	Member
11.	Dr. Atul Bora Director, Directorate of Technical Education, Kahilipara, Guwahati – 781 019 (ASSAM)	Member
12.	Shri Anand Prakash, IAS Principal Secretary Govt. of NCT of Delhi Department of Training & Technical Education, Muni Maya Ram Marg, Near TV Tower, Pitam Pura, New DELHI – 110 088	Member
13.	Dr. S Chatterji Professor & Head, Electrical Engineering Department National Institute of Technical Teachers Training and Research, Sector 26, Chandigarh – 160 019	Member
14.	Dr. K M Rastogi Director Incharge, National Institute of Technical Teachers Training and Research, Sector 26, Chandigarh – 160 019	Member Secretary

**LIST OF MEMBERS OF THE FINANCE COMMITTEE
AS ON 31.03.2012**

Sr. No.	Name and Designation with full address of the present incumbent	Status
1.	Dr. K K Talwar Chairman, Board of Governors, NITTTR, Chandigarh and President, National Academy of Medical Sciences (India), Ansari Nagar, Ring Road, New Delhi – 110 029	Chairman
2.	Shri A N Jha Joint Secretary and Financial Adviser (IFD), Department of Higher Education, Ministry of Human Resource Development, Government of India, Shastri Bhawan, New Delhi – 110 115	Member
3.	Shri N K Sinha Additional 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. K M Rastogi Director Incharge, National Institute of Technical Teachers Training and Research, Sector 26, Chandigarh - 160 019	Member Secretary

**LIST OF MEMBERS OF THE ACADEMIC COUNCIL
AS ON 31.03.2012**

Sr. No.	Name and Designation with full address of the present incumbent	Status
1.	Dr. K M Rastogi Director Incharge, NITTTR, 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	Eminent Member
3.	Dr. Manoj Datta Director, PEC University of Technology, Chandigarh - 160 012	Eminent Member
4.	Dr. Ashok Chitkara Chancellor, Chitkara University, Brotiwala District Solan (HP)	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 & Head, Educational Television Centre, NITTTR, Sector-26, Chandigarh - 160 019	Member
8.	Dr. S Chatterji Professor & Head, Electrical Engineering Department , NITTTR, Sector-26, Chandigarh - 160 019	Member

Sr. No.	Name and Designation with full address of the present incumbent	Status
9.	Dr. J S Saini Professor & Head, Rural Development Department, NITTTR, Sector-26, Chandigarh - 160 019	Member
10.	Dr. D D Sharma Professor & Head, Entrepreneurship Development and Industrial Co-ordination Department, NITTTR, Sector-26, Chandigarh - 160 019	Member
11.	Dr. SBL Sachan Professor & Head, Electronics & Communication Engineering Department, NITTTR, Sector-26, Chandigarh - 160 019	Member
12.	Dr. B S Pabla Professor & Head, Mechanical Engineering Department, NITTTR, Sector-26, Chandigarh - 160 019	Member
13.	Dr. S S Banwait Professor, Mechanical Engg. & Professor-Incharge, ME / Ph.D. Programmes NITTTR, Sector-26, Chandigarh - 160 019	Member
14.	Dr. (Mrs.) S P Bedi Professor & Head, Education & Educational Management Department, NITTTR, Sector-26, Chandigarh - 160 019	Member
15.	Dr. A B Gupta Professor & Head, Curriculum Development Centre, NITTTR, Sector-26, Chandigarh - 160 019	Member

Sr. No.	Name and Designation with full address of the present incumbent	Status
16.	Dr. Sanjay Sharma Professor & Head, Civil Engineering Department NITTTR, Sector-26, Chandigarh - 160 019	Member
17.	Dr. Suresh Dhameja Professor & Head, Information Management & Co-ordination Department NITTTR, Sector-26, Chandigarh - 160 019	Member
18.	Dr. Sunil Dutt Associate Professor & Faculty Incharge, Academic Cell, NITTTR, Sector-26, Chandigarh - 160 019	Member
19.	Dr. B C Choudhary Associate Professor & Faculty Incharge Applied Science Department NITTTR, Sector 26, Chandigarh - 160 019	Member
20.	Dr. (Mrs.) Maitreyee Dutta Associate Professor & Faculty Incharge, Computer Science Department, NITTTR, Sector-26, Chandigarh - 160 019	Member
21.	Er. A K Duggal Associate Professor, Civil Engineering Department, NITTTR, Sector-26, Chandigarh - 160 019	Member
22.	Dr. Hemant Sood Associate Professor, Civil Engineering Department, NITTTR, Sector-26, Chandigarh - 160 019	Member

Sr. No.	Name and Designation with full address of the present incumbent	Status
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- | | | |
|-----|---|------------------|
| 23. | Er. Rajesh Mehra
Associate Professor,
Electronics & Communication Engineering
Department, NITTTR, Sector-26,
Chandigarh - 160 019 | Member |
| 24. | Er. Sunil D Jassal
Assistant Professor,
Mechanical Engineering Department
NITTTR, Sector-26,
Chandigarh - 160 019 | Member |
| 25. | Dr. (Ms.) P K Tulsi
Professor, Education & 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
- Transfer of Appropriate Technology to Rural Areas
- 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 Parijat De continued to be the Director of NITTTTR, Chandigarh till 3 June, 2011 and thereafter Dr. K M Rastogi took over as Director-Incharge till 31 March, 2012. 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: 2011-2012

- Master's Degree Programmes (Regular and Modular) in **06** disciplines.
- **56** Students undergoing Ph.D. Programmes in different disciplines at the Institute.
- National Seminar on e-Governance in Technical Education – National, State and Institutional Perspectives
- National Seminar on Emerging Trends in Civil Engineering
- National Conference on Advances in Video, Cyber Learning and Electronics (ADVICE 2012)
- National Conference on Advances in Manufacturing Technology
- National Conference on Emerging Trends in Computer Engineering and Information Technology
- Offering PG Diploma and Certificate Course in Video and Animation Production
- Design of **39** Curricula for Skill Development Programmes at levels I and II covering five sectors of Indian Economy
- Signed MOU with TTC, Jodhpur and Punjab Technical University, Jalandhar to undertake Joint Projects
- Organization of Job Fairs for Differently Abled Persons under PWD Scheme
- Up-dating of Laboratories in New and Emerging Areas.
- Initiation of Research and Development Project on Bio-energy Technology and Business Solution for UK and India.

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 2011-12, **243** programmes were conducted for faculty/staff of engineering colleges and polytechnics which were attended by **3717** 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 2012, **56** 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 **56** students, **26** candidates have joined under QIP (Poly) Scheme at this institute.

2.1.2 (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
- Manufacturing Technology
- Construction Technology and Management
- Computer Science and 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 duly approved by AICTE and affiliated to Panjab University.

Admissions made in these programmes during 2011-12 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.	Computer Science and Engineering	--	16	03	19	GJ-01, HA-03, PU-01, UP-11, BH-01, UK-01, UT-01
2.	Instrumentation and Control	04	04	06	14	UT-01, UK-01, HA-01, UP-03, PU-02, BH-03, J&K-01, HP-02
3.	Electronics and Communication Engineering	02	08	08	18	BH-03, GJ-04, HP-05, HA-1, MP-01, PU-2, UK-02
	Total	06	28	17	51	BH-07, GJ-05, HP-07, HA-05, MP-01, J&K-01, UP-14, UK-04, UT-02, PU-05
MASTER'S DEGREE (MODULAR MODE)						
1.	Manufacturing Technology	13	14	03	30	UT-01, HA-06, PU-03, UP-13, UK-01, BH-01, RA-05
2.	Computer Science and Engineering	09	28	--	37	PU-04, HA-08, HP-01, UP-15, J&K-03, RA-02, UT-02, UK-02
3.	Instrumentation and Control	09	23	--	32	HA-04, UP-19, RA-01, OR-02, PU-01, UK-01, J&K-01, HP-03
4.	Electronics and Communication Engineering	12	21	01	34	UP-12, HP-02, HA-07, PU-05, BH-01, RA-03, UK-01, UT-01, J&K-01, AS-01

Sr. No.	Name of the Programme	No. of Participants			Total	State-wise Break-up
5.	Construction Technology and Management	09	03	04	16	PU-04, HA-02, HP-02, UP-04, J&K-01, RA-01, UT-01, UK-01
6.	Engineering Education	--	05	--	05	UT-01, KE-01, PU-01, UP-02
	Total	52	94	08	154	AS-01, BH-02, HP-08, HA-27, J&K-06, KE-01, OR-02, PU-18, RA-12, UK-06, UP-65, UT-06

Note: **102** (regular) and **464** (modular) students of previous batches are also on roll.

ABBREVIATIONS USED			
AS	Assam	PU	Punjab
BH	Bihar	KE	Kerala
CH	Chandigarh	OR	Orissa
GJ	Gujarat	RA	Rajasthan
HA	Haryana	UK	Uttarakhand
HP	Himachal Pradesh	UP	Uttar Pradesh
J&K	Jammu & Kashmir	UT	Union Territory
MP	Madhya Pradesh		

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 2011-12, 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	:	150
• No. of Participants	:	2105
• No. of Training Workshops	:	33
• No. of Participants	:	1478
• No. of National Seminars/Conferences	:	05
• No. of Participants	:	313
• No. of Curriculum Development Workshops	:	45
• No. of Participants	:	523

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	10	10	108	108
2.	Civil Engineering	18	20	171	226
3.	Computer Science	27	27	265	265
4.	Curriculum Development	06	06	195	195
5.	Centre for Physically Challenged Persons	02	02	23	23
6.	Education and Educational Management	16	19	349	414
7.	Educational Television	04	06	84	144
8.	Electrical Engineering	10	10	96	96
9.	Electronics and Communication Engineering	09	10	126	163
10.	Electronics Service Centre	07	07	107	107
11.	Entrepreneurship Development and Industrial Coordination	06	06	64	64
12.	Mechanical Engineering	16	17	171	180
13.	Media and Continuing Education Centre	06	06	46	46
14.	Rural Development	13	13	300	300
	Total	150	159	2105	2331

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

Total number of STCs conducted	=	150
STCs conducted at NITTTR, Chandigarh	=	105
STCs conducted at Polytechnics in the States	=	45

TABLE 2 - TRAINING WORKSHOPS

Sr. No.	Department / Centre	Number of Workshops	Total Duration in weeks	Number of participants	Person weeks
1.	Civil Engineering	4	2.0	238	119.0
2.	Computer Science	2	1.0	63	31.5
3.	Curriculum Development	3	1.5	47	23.5
4.	Media and Continuing Education	3	1.5	66	33.0
5.	Information Management and Coordination	9	4.5	422	211.0
6.	Rural Development	11	5.5	626	313.0
7.	Physical Challenged	01	0.5	16	8.0
	Total	33	16.5	1478	739

TABLE 3 – NATIONAL SEMINARS AND CONFERENCES

Sr. No.	Title of the Programme	Duration in weeks	Number of participants	Person weeks
1.	e-Governance in Technical Education- National, State and Institutional Perspectives 06-07 Sep, 2011	0.5	68	34.0
2.	Emerging Trends in Civil Engineering, 16-17 Nov, 2011	0.5	36	18.0
3.	Advances in Video, Cyber Learning and Electronics (ADVICE -2012), 01-02 Mar, 2012	0.5	118	59.0
4.	Advances in Manufacturing Technology, 15-16 Mar, 2012	0.5	67	33.5
5.	Emerging Trends in Computer Engineering and Information Technology, 22-23 Mar, 2012	0.5	24	12.0
	Total	2.5	313	156.5

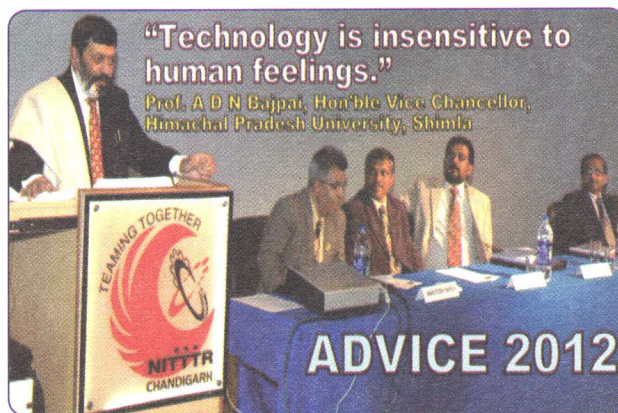
view of National Seminars/Conferences organised at the institute during 2011-12



National Seminar on "e-Governance in Technical Education-National, State and Institution Perspective" 06-07 September, 2011



National Seminar on "Emerging Trends in Civil Engineering" 16-17 November, 2011



National Conference on "Advances in Video, Cyber Learning and Electronics" (ADVICE 2012) 01-02 March, 2012



National Conference on "Advances in Manufacturing Technology" 15-16 March, 2012



National Conference on "Emerging Trends in Computer Engineering and Information Technology" 22-23 March, 2012

A view of India and UK bilateral Research and Development Project on “Bio-energy Technology and Business Solution for UK and India” initiated at the institute



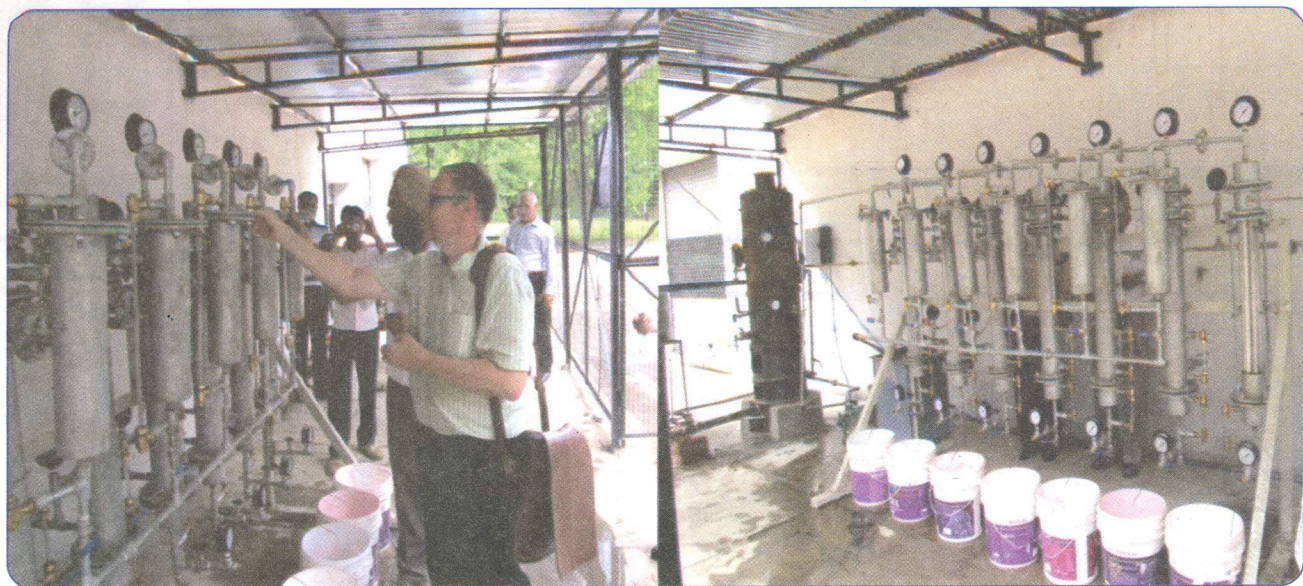
Vermi-compost Bed



Bio-gas Plant



Filtration Beds



Multi-effect Distillation for purification of saline brackish water

(ii) Faculty / Technical Staff of Engineering Colleges

During the year 2011-12, 93 courses were conducted for faculty and technical staff of Engineering Colleges in which 1612 teachers participated and accounted for 1687 person weeks of training. The department wise break-up of short term courses, total duration and number of participants is given in Table 4.

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	10	10	173	173
2.	Civil Engineering	05	06	111	120
3.	Computer Science	23	24	391	445
4.	Curriculum Development	03	03	181	181
5.	Education and Educational Management	06	07	110	113
6.	Educational Television	05	05	76	76
7.	Electrical Engineering	09	09	75	75
8.	Electronics and Communication Engineering	10	10	146	146
9.	Electronics Service Centre	02	02	11	11
10.	Entrepreneurship Development and Industrial Coordination	03	03	36	36
11.	Mechanical Engineering	06	07	93	102
12.	Media and Continuing Education	07	07	62	62
13.	Rural Development	04	04	147	147
	Total	93	97	1612	1687

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

Total number of STCs conducted	=	93
STCs conducted at NITTTR, Chandigarh	=	78
STCs conducted at Engineering Colleges in the States	=	15

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 2011-2012

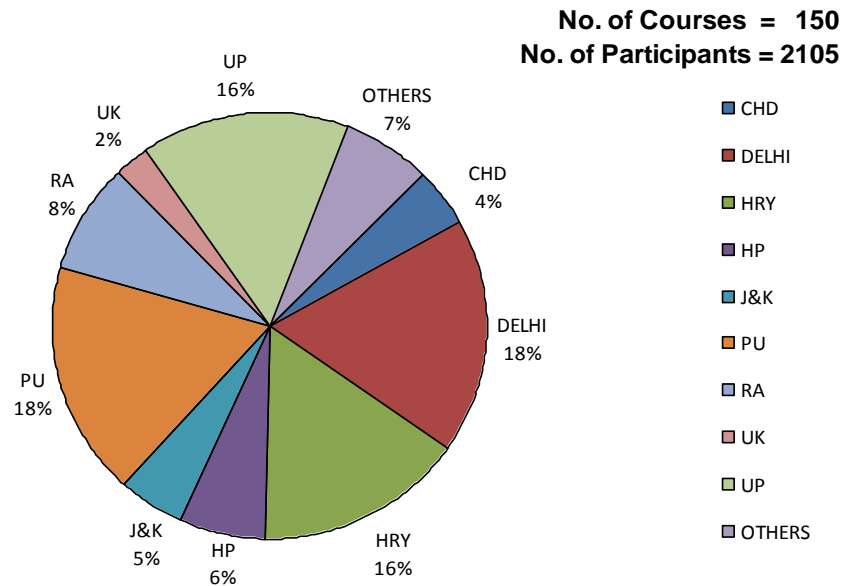
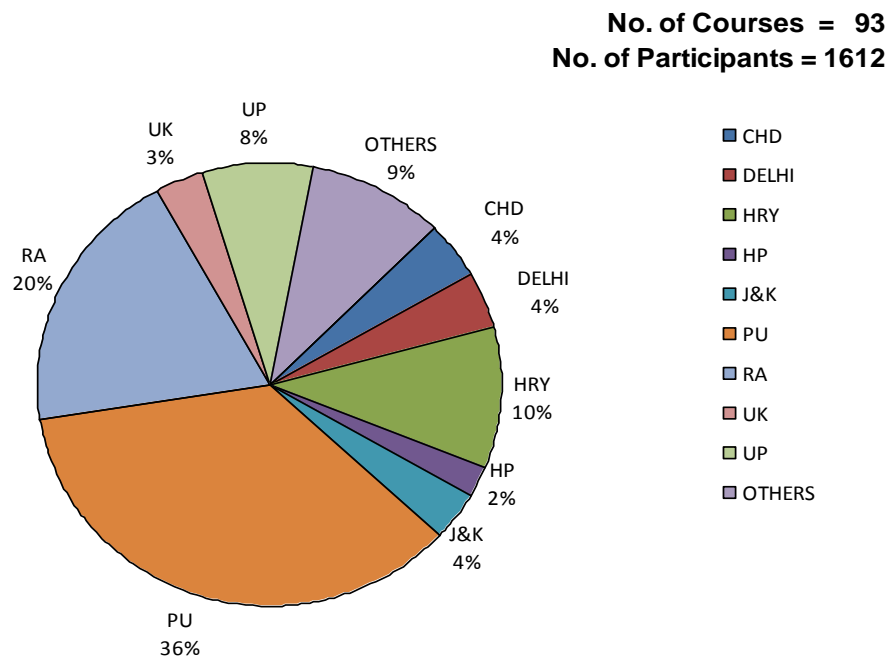


Figure 2: Statewise Percentage Participation in Short Term Courses for Engineering Colleges for the year 2011-2012



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 2011-12, **06** curriculum of diploma programmes for Haryana State have been designed and **21** diploma programmes for the state of J&K and **01** diploma course for the state of Punjab have been revised by the institute. In addition to above, under the Skill Development Mission of Government of India, **39** curricula for certificate courses under five sectors of Skill Development have also been designed during the year under report. The details of curricula designed and revised are given below:

A.	CURRICULA DESIGNED
1.	<p>06 Diploma Courses for the State of Haryana</p> <ol style="list-style-type: none"> 1. Printing Technology (Spl. CAD/GAT) 2. Printing Technology (Spl. Press Technology) 3. Electronics Engineering (Spl. Power Electronics) 4. Power Station Engineering 5. Electrical and Electronics Engineering 6. Polymer Engineering (Spl. Plastic Technology)
B.	CURRICULA REVISED
1.	<p>21 Diploma Courses for the State of J & K</p> <ol style="list-style-type: none"> 1. Civil Engineering 2. Electrical Engineering 3. Mechanical Engineering 4. Automobile Engineering 5. Architectural Assistantship 6. Computer Engineering 7. Garment Technology 8. Textile Technology 9. Civil Engineering (Public Health Engineering) 10. Quantity Surveying 11. Office Management and Computer Applications 12. Fashion Designing 13. Information Technology 14. Tourism and Hospitality Management 15. Leather Technology 16. Wood Technology 17. Food Technology

	18. Instrumentation and Control 19. Medical Lab Technology 20. Electronics and communication Engineering 21. Medical Electronics
2.	01 Diploma Course in Automobile Engineering for the State of Punjab
C	<p>CURRICULUM DESIGN FOR SKILL DEVELOPMENT PROGRAMMES</p> <p>39 Certificate programmes under five sectors</p> <p>a) Building Construction and Real Estate Sector</p> <ol style="list-style-type: none"> 1. Repair and Maintenance of Electric Iron 2. Repair and Maintenance of Inverters 3. Repair of Semi-Automatic Washing Machine 4. Repair and Maintenance of Electric Toaster 5. Repair of Desert Cooler 6. Mason (Roof Weather Proofing Conventional) 7. Water Proofing Assistant 8. JCB Operator 9. Hot Mix Plant Operator 10. Road Repair Technician 11. Repair and Maintenance of Domestic Submersible Pumps 12. Repair and Maintenance of AC Motor Starters <p>b) Unorganised Sector/Unorganized Employment in Organized Sector</p> <ol style="list-style-type: none"> 13. Digital Photography 14. Domestic Cook 15. Refrigeration and Air Conditioning 16. Carpet Weaving 17. Durrie Weaving 18. Domestic Driver-cum-Attendant 19. Indian Sweets 20. Indian Snacks 21. North Indian Tandoori Food 22. Leather Stitcher and Leather Goods Manufacturing 23. Footwear Making 24. Sheet Metal Work 25. Assistant to Driver

<p>c) Tourism, Travel, Hospitality and Trade Sector</p> <p>26. Accommodation Assistant</p> <p>27. Care Fiver for Pre-School Children</p> <p>d) Media and Entertainment Sector</p> <p>28. Cinema Manager</p> <p>29. Makeup Man</p> <p>30. Story Boarder</p> <p>31. Writer</p> <p>32. Game Programmer</p> <p>33. Game Designer</p> <p>e) Gem and Jewellery Sector</p> <p>34. Faceting of Gem Stones</p> <p>35. Gemstone Setting (Basic)</p> <p>36. Advanced Jewellery Designing</p> <p>37. CAD and CAM of Jewellery</p> <p>38. Jewellery Casting</p> <p>39. DiamCalc- Cut Optimization and Analysis Tool</p>

2.3 Instructional Material Development

During the year 2011-12, 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:

• Text Books	:	02
• Modules	:	06
• Readers	:	10
• Other Print Material	:	69
• Educational Video Films	:	66
• 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 forms an important aspect of the institute's programmes. The following research studies were completed during 2011-2012:

1. Employment Opportunities, Competency Profile of Diploma Holders in Computer Engineering
2. Employment Opportunities, Competency Profile of Diploma Holders in Information Technology
3. Deterioration of Heritage Building in Chandigarh – A Case Study of Museum Building
4. Assessment of Deterioration and Remedial Measures for a Milk Plant at Gurgaon
5. Repair and Rehabilitation of Fire Damaged Building of Punjab National Bank at Chandigarh
6. Inclusive Technical and Vocational Education for the Differently Abled Persons in India- Current Status, Issues and Challenges
7. Problems Faced by the Children with Learning Disabilities and Current Intervention Processes
8. Problems of Deaf Persons and Their Families
9. Mapping of Entrepreneurial and Employment Opportunities in Identified Skill Development Sectors of the Indian Economy
10. A Comparative Study of Effectiveness of Government versus Private Polytechnics in the State of Rajasthan

The following development projects have been undertaken at the institute:

1. Bio-energy Technology and Business Solutions for UK and India
2. Eco-water Literacy and Sanitation Campaign sponsored by DST, Government of India
3. Video Conferencing Facilities at the institute

In addition to above, **06** Ph.D. thesis and **104** M.E. thesis were submitted 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. An MOU has been signed with IGNOU, New Delhi for running 10 KWFM station for Gyan Vani transmission.

The institute has also signed MOUs with four partner institutes viz. (i) Sri Sukhmani Institute of Engineering & Technology, Derabassi, (Punjab) (ii) Shree Siddhivinayak Educational Trust Group of Institutions, Bilaspur, Yamuna Nagar, Haryana (iii) Guru Nanak Dev Engineering College, Ludhiana, Punjab (iv) Himalayan Group of Professional Institutions, Kala Amb, (Himachal Pradesh) to run Certificate and PG Diploma programmes on Video and Animation Production from 11 July, 2011.

The institute completed **08** design and testing projects for various industries / organisations and also organized **10** training programmes for students of technical education system and working officials from various organisations. The Computer Science Department of the institute also organised a training programme on Basic Computer Training for Data Entry Operator for under privileged students and trained **29** students. Mechanical Engineering Department provided its services to technical institutions and other organizations in conduct of aptitude test for recruitment of faculty/executives.

Bio-energy Technology and Business Solution for UK and India

NITTTR, Chandigarh has initiated a research and development project which is a part of India and UK bilateral Research and Development project for “Bio-energy Technology and Business Solution for UK and India”. Under this project following activities are being undertaken:

- 1) The kitchen solid waste recycling is being done at NITTTR, with the help of a biogas plant. The bio-gas is being used for the experiment in the laboratory and day to day use of the department of Rural Development. The bio-gas slurry is being used as manure in NITTTR organic farm. It also has a vermi-compost unit. The part of the slurry is being used for the vermi-culture. With the help of slurry and manure, NITTTR organic farm has been developed and multiple crops are being grown for experiment organically.

- 2) A demonstration unit for the treatment of Grey water has been developed. The waste water coming from hostel is presently being used for the recycling. Various hydroponic plants have been planted for experiment on the filtration beds. The waste water after the treatment is being collected in a collection tank where a final treatment is being done by floating rafts cum phyto-remediation technique.
- 3) NITTTTR selected a village-pond at Padaul near Mullanpur in Mohali District of Punjab. The floating rafts cum phyto-remediation unit have been deployed in a dirty pond of village Padaul. Thirty floating rafts were deployed in three phases taking ten at a time. Now they are functional in the pond. The hydroponic plant *canna* has been found very effective for phyto-remediation. The chemical analysis done on last five months from August, 2011 to December, 2011 shows that there is a decline on B.O.D and C.O.D parameters and also e.coli which are the important parameters for water purification.
- 4) Multi-effect distillation unit has been installed at NITTTTR institute campus for the treatment of saline and brackish water. It is functional and multi-effect distillation is being used with the help of boiler running on diesel.

Eco-water Literacy and Sanitation Campaign Project

The main purpose of the project was to popularize various low cost techniques of water and sanitation and create awareness among the villagers through practical demonstrations and training. In order to do such activities two districts from Uttar Pradesh, namely Meerut and Rae Bareilly, were selected. D N Polytechnic, Meerut and Feroze Gandhi Polytechnic, Rae Bareilly were selected as partner polytechnics for the extension of such programmes. Some of the achievements made under the project are given in the following table:

Training cum Awareness Camps on Eco-water literacy and Sanitation Campaign

Name of the Training	Dates	Venue	No of Trainees	No. of General Participants in Awareness Camp	No of families benefited under technology demonstration
Training cum Awareness programme on Eco-water and Sanitation Technology	19-21 April 2011	D N Polytechnic, Meerut	28	450	10
	4-6 May 2011	F G Polytechnic, Rai Bareilly	39	120	30
	26 – 29 July 2011	F G Polytechnic, Rai Bareilly	30	250	41
		Total	87	820	81

The major highlights of the project was that **87** persons were given practical training which includes the polytechnic teachers, technical staff and few selected youth and women from the camp villages. More than **820** villagers got exposure through exhibition and meetings and 81 families got direct benefit from the construction of technologies. Two groups of rural youth of a batch size of **(25-30)**



Job Fair organised in collaboration with CII for employment of physically disabled persons under the PWD Scheme of Government of India

Signing of MOU between NITTTR, Chandigarh and TTC, Jodpur



First Alumni Meet of the institute organised on 17 February, 2012

A view of important days celebrated at the institute



Annual Day, 7th September, 2011

Prof. MK Surappa, Director, Indian Institute of Technology, Ropar, the Chief Guest addressing the audience on Annual Day



Recipients of Best Polytechnic Award 2010-2011 on the Occasion of Annual Day



Prof. (Dr.) S.C. Vaidya, Chief Guest, addressing the audience on Teachers' Day

डा० राकेश वत्स हिन्दी के कार्यों की वार्षिक प्रगति रिपोर्ट प्रस्तुत करते हुए ।



each were given training on masonry cum construction and plumbing work at two project partners' institutions (polytechnics).

Job Fairs

Centre for Physically Challenged, NITTTTR, Chandigarh in collaboration with Northern Chapter of Confederation of Indian Industry (CII), organized the following Job Fairs for differently abled persons in a phased manners and company-wise number of persons selected is given as under:

Sr.No.	Date	Name of Company	Persons Selected/ Short listed
1.	23-25 Nov. 2011	Domino's	10
2.	27.03.2012	IBM, IT Park	12
3.	27.03.2012	Competent Synergies Pvt. Ltd.	08
4.	27.03.2012	Jubilant Food Works Pvt. Ltd.	03
5.	27.03.2012	Fortis Healthcare Ltd.	06

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. **56** papers of the institute faculty were published in the journals and **101** papers were presented by the faculty in various conferences and seminars. **The details are enclosed at Annexure- II.**

2.7 Academic Achievements of the Departments

Applied Science Department

During the year 2011-12, the department has conducted **10** short term courses for polytechnic teachers and **10** short term courses for engineering college teachers, which were attended by **108** and **173** teachers respectively. These programmes were conducted in the areas of Intellectual Property Rights for pharmaceutical sector and Patent System in India, Nanotechnology-Opportunity and Challenges, Optical Fiber Communication and Sensing Application, Laser Technology, Nuclear Radiations & their Application, Nanomaterials: Characterization and Application, Nuclear Energy and Power and OFC Systems Design and Performance Evaluation, Application of Fluid Mechanics including CFD in Chemical and Allied Industries, Optical Fibres and their Applications, Physics Laboratory Organisation and Updating, Biotechnology and Biochemical Engineering. The department faculty published **01** paper in International/National journals and also presented **04** papers in national seminars/conferences. The faculty also provided training to students of engineering colleges in the area of Fibre Splicing, Connectorization and Trouble Shooting.

Centre for Physically Challenged Persons

The centre organized **02** training programmes for polytechnic teachers which were attended by **23** participants. These training programmes aimed at making polytechnic faculty, staff and NGOs working in the areas of disability aware about the PWD project. These STCs were conducted in the areas of (i) Recent Trends in Education and Training of the Differently Abled Persons and (ii) Technical and Vocational Education of the Differently Abled Persons. The centre organized an Annual Review Workshop for polytechnics implementing the PWD Scheme wherein **16** participants participated. During 2011-12, the centre collaborated with CII and organized Job Fairs for the qualified differently abled persons and **39** persons with disabilities got placement in various organizations. In addition to this, the centre for Physically Challenged Persons, provided guidance/assistance to polytechnics in implementing the Scheme of integrating persons with disabilities in technical and vocational education (15 institutions) and assistance was provided to MHRD in the effective implementation of the scheme of integrating persons with disabilities in technical and vocational education. The centre also undertakes research studies regarding the issues related to differently abled persons and findings of the research studies are shared with the project staff working in project polytechnics

Civil Engineering Department

The department, during the year the 2011-12, had **50** students on roll for ME programme in Construction Technology and Management (Modular) and **10** Ph.D. Scholars under QIP Scheme.

The department conducted **23** short term training programmes, one national seminar and four workshops, which were attended by **556** polytechnic/engineering college teachers and working professionals from industry. The department conducted training programmes in the areas of Application of Auto CAD in Civil Engineering, Modern Building Materials and Construction Practices, Environmental Protection, Control and Clean Technology, Evaluation of RCC Structures by NDT, Application of STAAD Pro for Design of RCC Structures, Disaster Management, Environmental Pollution and Control, Application of Remote Sensing, Digital Mapping and GPS in Civil Engineering, Rehabilitations and Retrofitting Solutions for Structures, Green and Energy Efficient Buildings – Concept and Practices, Advances in Cement and Concrete including Mix Design, Low Cost Housing Techniques and Practices, Lab. Application in Quality Control of Concrete, Mapping by Total Station, GIS Application in Engineering and Sciences, Advanced Construction Techniques and Materials, Application of AutoCAD in Civil Engineering, Evaluation of RCC Structures by NDT, Geotechnical Investigations including Lab. Practices in Soil Engineering

The department conducted workshops on Water Proofing Applications in Civil Engineering, Structural Design by ETABS, Total Station and NDT Applications in Civil Engineering and Resource Efficient Bricks. The department also conducted one National Seminar on Emerging Trends in Civil Engineering Practices. The department faculty published 01 paper in the journal and presented **07**

papers in national/international seminars/conference. The department also provided design and testing services to industry on consultancy basis.

Computer Science Department

During the year 2011-12, the department conducted **27** training programmes for polytechnic teachers and **23** programmes for faculty of Engineering Colleges, which were attended by **265** and **391** participants respectively. Some of the significant programmes included: Computer Animation, Network Security and Firewall, Foss Applications and Linux Administration, Web-based ERP, Advanced Java, E-Commerce, PHP and Open Source Technology, Wireless Communication, Hardware Maintenance and Networking, ASP.Net, VB.Net, Multimedia Authority, Web Hacking and Security, Mobile Computing and Matlab Programming etc. 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. The department also conducted a national conference on Emerging Trends in Computer Engineering and Information Technology during the year under report.

The department faculty has published **06** papers in international/national journals and presented **06** papers in International/ National Seminars and Conferences. The department faculty also attended training programmes at outside institutions.

Curriculum Development Centre

Curriculum Development Centre conducted **06** short-term courses for the polytechnics and **03** for the engineering colleges through which **195** polytechnic teachers and **181** teachers of engineering colleges were trained. The centre also conducted **45** Curriculum Development Workshops for design/revision of curricula in which there were **523** participants from industry, institutions of higher learning and polytechnics. During the year under report, the department designed **06** curricula for diploma courses for the state of Haryana and revised **21** curricula at diploma level for the state of J&K and one diploma course for the state of Punjab. Services were provided to the states in northern region for effective implementation of their curricula.

The department faculty completed **02** research studies during the year under report. The faculty also published **02** research papers in the journals and presented **05** papers in International National Conferences/Seminars.

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. At present, **21** students are pursuing M.Tech. Engineering Education programme. The students belong to Chandigarh, Punjab, Haryana, Assam,

Uttarakhand, Uttar Pradesh, Rajasthan, Maharashtra and Kerala.

The department organized **22** short term training programmes, out of which **16** programmes were organized for polytechnic faculty and **06** were organized for the faculty of engineering colleges. **349** faculty members from polytechnics and **110** faculty members from engineering colleges participated in the various programmes.

During the year 2011-12, the curriculum for M.Tech. (Engineering Education) programme was revised and more of engineering papers were included in the programme. The department also coordinated Ph.D course on Research Methodology.

Under the guidance of faculty **11** M.Tech Engineering Education (Modular) thesis have been submitted by the students. The department faculty has presented **03** papers in National /International Conferences and has published 11 papers/abstract in National/ International Journals/Proceedings. In addition, one faculty member has attended two QIP-AICTE Faculty Development Programmes held at IIT, Delhi and IIT, Kharagpur

Educational Television Centre

The centre conducted **04** short term training programmes for polytechnics and **05** programmes for engineering colleges and trained **84** and **76** teachers respectively. Significant programmes conducted during the year included Soft Computing, 3D Animation and Multi Media Supported Learning, Video and Audio Recording and Editing, Camera Techniques and Operation, Advanced Digital Signal Processing, Advanced Antenna and Microwave Engineering, LMS, 2D and 3D Animation and Multimedia, Ann and Optimization Technique and Application . The Centre produced instructional material on the above mentioned areas. Centre has also provided practical training to **46** students of various engineering colleges in the areas related to Antenna Design and admitted **05** students in Certificate and PG Diploma on Video Film and Animation of six months duration. The department also conducted a national conference on Advances in Video, Cyber Learning and Electronics (ADVICE-2012) which was attended by **118** delegates.

ETV Centre produced **66** Video Films on various educational aspects during the year 2011-12.

Daily transmission of programmes in TECH ED VISION also continued in 2011-2012. **365** capsules of video films were sent to EMPC, IGNOU, New Delhi. The transmission was carried out by ETV Centre of the institute on every working day from 09.30 a.m. to 05.30 pm. Live and video recorded lectures were transmitted to all the networked institutes covering almost all parts of the country.

The department has designed curricula for PG Diploma and Certificate Course in Video and Animation Production and signed MOUs with four partner institutes to run these programmes from July, 2011. An MoU was also signed with Indira Gandhi National Open University, New Delhi for

running 10 KW FM Station for Gyan Vani transmission.

Department faculty has also published **09** papers in international/national journals and presented **09** research papers in various national/international seminars and conferences.

Electrical Engineering Department

During the year 2011-12, the department conducted **10** short term programmes for polytechnic teachers and **09** for faculty of engineering colleges, in which **96** and **75** 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, Process Instrumentation, Micro-controllers and its Applications, Artificial Neural Network and Fuzzy Logic, Troubleshooting and Repair of Transformers etc. The department also developed instructional material in these areas.

Under the guidance of faculty **11** M.E. thesis have been submitted by the students. The department faculty has published **08** papers in the national/international journals and presented **10** papers in national/international conferences.

Electronics and Communication Engineering Department

During the year 2011-12, the department conducted **09** training programmes for polytechnics and **10** programmes for faculty of engineering colleges in which **126** and **146** teachers participated respectively. The significant programmes conducted were in the areas of Optimization Techniques, MATLAB Based ADSP, GSM & 3 G Communication, ANN with MATLAB Programming, Wireless and Mobile Communication, Advanced VLSI Design FPGA Based DSD, Advanced Embedded Systems, Computer Networks, MATLAB with Applications, GSM to GPRS and Introduction to System Designing. Instructional material related to short term courses developed on CDs has been given to the course participants to update their knowledge and use to train the students in their institutions. The department faculty also prepared instructional material on these topics.

In addition to ME Regular and Modular classes of various sessions/spells during the year, under the guidance of faculty **11** pre-thesis presentation and **13** final viva presentation for ME (E&CE) regular and **18** pre-thesis and **19** final viva presentations for ME (E&CE) modular programmes have been submitted by the students. Four to six weeks Practical training was provided to the **25** B.Tech students of various engineering colleges during the year. The department faculty has published **41** papers in the national/international journals and national/international conferences. The department faculty/staff have also attended training various in-house/outside training programmes during the year.

Entrepreneurship Development and Industrial Coordination Department

The department during 2011-12 conducted **06** short term course for polytechnics and **03** for faculty of engineering colleges in which **64** teachers from polytechnics and **36** teachers from engineering colleges were trained respectively. Comprehensive training material modules were prepared for all these programmes and distributed among participating teachers. An Innovation and Web-based Teaching Learning System (ITLS) laboratory has been established by the department for effectively using computers for creative, innovative and interactive teaching-learning during short term and long term courses. Necessary hardware has been procured to make the laboratory operational.

The department assisted the engineering colleges, polytechnics, AICTE and MHRD in promotion of entrepreneurship and Industry Institute Interaction as per their requirements.

Faculty of the department published **01** paper in the journal and presented **01** paper in an international conference and chaired technical sessions in various international, national and regional seminars and conferences organized by various technical institutions and universities. One of the faculty members attended an International Training Programme conducted by CPSC, Manila and Ministry of Higher Education at Melaka, Malaysia.

The department faculty also provided assistance to DTE, Punjab in inspection of new polytechnics in the state as requested by MHRD, New Delhi and also to AICTE for expert evaluation of new technical and management institutions in the country.

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 NITTTR, Chandigarh.

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 **300** e-journals and **57** print journals. The library has over **36,500** volumes of technical and educational books, **3901** bound journals and **10004** Indian Standards. **287** new books were added to the library during 2011-12. 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.

Mechanical Engineering Department

The department conducted **16** short term courses for faculty of polytechnics and **06** short term courses for engineering colleges, in which **171** teachers from polytechnics and **93** teachers from engineering colleges were trained in various areas of mechanical engineering. Significant training programmes conducted by the department included CAD using CATIA, Fuzzy Logic Applications in Engineering, CAD/CAM Mechatronics, Modeling and Simulation using MATLAB, Auto CAD and its Customization, Computer Machine Interfacing, Material Testing and NDT, Refresher Course in Mechanical Engineering, Teaching Practices in Engineering Drawing etc. The department also produced instructional material on the above mentioned topics. During the year under report, the department also conducted a national conference on Advances in Manufacturing Technology. The department faculty published **02** papers in the national/international journals and presented **09** papers in national/ international conferences. Under the guidance of faculty of the department **12** M.E. thesis were completed.

Two faculty members of the department were awarded “ISTE Baroda Chapter Award 2011” by the Indian Society for Technical Education for the research paper published in the Indian Journal of technical Education, September, 2010.

Media and Continuing Education Centre

The centre of Media and Continuing Education during the year 2011-2012 conducted 13 programmes for the faculty of polytechnics and engineering colleges from the Northern Region and trained **108** teachers. The department conducted **01** National Seminar on “e-Governance in Technical – National, State and Institutional Perspectives” in which **68** experts participated from different parts of the country. In addition, the department conducted **03** orientation workshops in which **66** participants participated. The department designed **02** instructional booklets, **03** handouts and **250** power point slides. **04** consultancy projects for the state of Punjab and Haryana were completed. **03** research papers were presented by the faculty in national seminars/conferences. **02** extension service projects were also undertaken by the department. The departmental faculty attended **01** training programme in another organisation.

Rural Development Department

The department conducted **13** training programmes for polytechnics and **04** programmes for engineering colleges in which **300** polytechnic teachers and **147** engineering college teachers participated. **11** workshops with respect to implementation of the Scheme of Community Development through Polytechnics were organized for different states in the northern region in which **626** participants participated. The training programmes were conducted in the areas of Micro-Enterprise Development and Management, Eco-Water Literacy and Sanitation Awareness Camps, Income Generation and Employment Enhancement in Rural India, Gender Sensitization and Capacity Building for Marginalized and Rural Women, Earthquake Risk Management, Low

Cost Housing in Disaster Prone Areas, Technologies for Rural India, Energy Efficient Buildings for Rural India, Fashion and Textile Design, Integrated Village Development – A Practical Approach, Community Appraisal Techniques for Rural Development, Disaster Management, Climate Change, Disaster and Sustainable Development, Renewable Energy Based Technologies, Climate Changes and Disaster Management. The department has also produced study materials on the above mentioned topics.

The department has undertaken two research and development projects. Under the first project entitled “Bio-energy Technology and Business solutions for the UK and India”, IIT Delhi and NITTTR Chandigarh have initiated a number of experiments at NITTTR Chandigarh. The second experiment is on the development of a Waste Water Treatment model for recycling institute’s mess waste water for its uses for irrigation and gardening. The third experiment is undergoing in two villages of Punjab which is related to pond waste water treatment through floating rafts cum phytoremediation process. The fourth experiment is on treatment of brackish water through multi-effect distillation. The second R&D project is entitled “Eco-water literacy and sanitation campaign” sponsored by DST, GOI. The project is being run in two districts of Uttar Pradesh i.e. in Meerut and Rai Bareilly. Three Camps were organized last year in which 87 persons were trained and 820 persons participated in these camps. 81 families were benefitted from field demonstration on the technologies like waste water disposal system, smokeless chullahs and vermiculture.

Information Management and Coordination Department

The activities of Information Management and Coordination are two fold. Firstly, to facilitate building relationship with clientele system and assess their needs, arrange to provide services that best suit their requirements and disseminate related information. Secondly, to effect internal co-ordination, planning of institution programmes and activities, assess periodic progress of planned targets and facilitating optimal utilization of institutional resources for enhancing efficiency and accountability. During the year under report, the department prepared annual report of the institute for the year 2010-11 and submitted to MHRD, Government of India for their perusal and placing in the parliament. The other major activities of the department during 2011-2012 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 2012-2013 after consolidating the needs of various states of the northern region through conduct of annual workshops held in each state. The department published four 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.

The department also keeps continuous liaison with the states, MHRD, AICTE etc. and other national/international organisations for ascertaining their needs, planning and coordinating projects at regional and institute level on regular basis.

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.

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 **07** programmes for polytechnics and **02** training programmes for engineering colleges in which **107** participants from polytechnics and **11** from engineering colleges participated and got training in the area of repair and maintenance of various electronics equipments/instruments e.g. TV repair and its maintenance, Repair and Maintenance of SMPS, Cellular Phones and Consumer Electronics, Experimental Kits, Power Supply Design and Fabrication and Testing etc. Besides providing hands-on training to the participants, the centre has also rendered services to technical institutions through repair of **89** equipment/ instruments of their institutes.

2.8 Other Significant Activities

(i) Skill Development Mission of Government of India – NITTTR's Role

The Ministry of Human Resource Development, Government of India has asked the NITTTRs to help the Ministry in capacity building for skill training in institutions falling under its umbrella. Accordingly, NITTTR Chandigarh has been given a gigantic task of preparing **250** curricula documents for offering skill training particularly at skill level I and II, covering **05** sectors of Indian Economy. The institute has so far prepared curriculum documents for **109** (including **39** during 2011-2012) trades. Details of curriculum documents prepared are as under:

Building Construction and Real Estate	=	12
Unorganized Sector/Unorganized Employment in Organized Sectors	=	13
Tourism , Travel, Hospitality and Trade	=	02
Media and Entertainment	=	06
Gems and Jewellery	=	06

(ii) Qualification Enhancement Opportunities through Staff Development

In order to meet the growing need of qualified teachers in the technical education system of the country, the Institute initiated concerted efforts in November, 2003 for offering modular training programmes. This was envisaged as an alternative to the traditional/regular programmes being offered in engineering colleges/universities, in view of the reluctance of the administrative authority/management of technical institutes to relieve the technical teachers for a long duration of two years resulting in disruption of teaching schedule besides the personal and family problems of the faculty.

The institute has this path-breaking innovation to its credit, that for the first time in the country, ME Modular Programmes are being offered by it. During the year under report, **154** teachers were admitted in these Modular Training Programmes. In addition, there are **56** students registered for Ph.D including **26** under Quality Improvement Programme.

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 2011-12, the following buildings/infrastructure have been developed at the institute:

- ◆ Open-Air Stage
- ◆ All-Weather Connecting Pathway from existing buildings to newly constructed men's hostels and guest house
- ◆ Development of Communication Skills Laboratory
- ◆ Renovation of Library
- ◆ Renovation of existing Academic Blocks (on-going project, under progress)
- ◆ Improving internal roads, parking areas and driveways of main entrance of the academic area in Sector 26, Chandigarh (on-going project, under progress)

3.2 Equipment

Equipment worth ₹ **257.04 lakh** (₹ 256.94 lakh under main account and ₹ **0.10 lakh** under sponsored projects) was purchased during the year 2011-2012. After providing necessary depreciation on the assets, the net value of the equipment remained at ₹ **838.08 lakh** as on **31.03.2012**.

3.3 Furniture

Furniture worth ₹ **20.76 lakh** was purchased during the year 2011-12 against Grant. After providing necessary depreciation under rules, the net value of furniture remained at ₹ **109.65 lakh** as on **31.3.2012**.

3.4 Expenditure

An expenditure amounting to ₹ **1950.14 Lakh** (₹ **301.83 lakh** under Plan (Non Recurring) – Creation of Capital Assets, ₹ **236.68 lakh** under Plan (General)-Recurring and ₹ **1411.63 lakh** under Non-Plan –(Recurring) scheme has been incurred during the financial year **2011-2012**.

3.5 Library

i)	Number of books available in institute library as on 31.03.2012	36,650
ii)	Books purchased during the financial year 2011-12	287
iii)	Journals subscribed during the year 2011-12	e-Journals 300 Print Journals 57 Bound Journals 3901 Indian Standards 10004

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 technological 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 2011-12

S. No.	Name and Address
1.	Prof. Robert Berry, Executive Dean, Engineering and Applied Science, Aston University, UK
2.	Sh. S.K. Grover, Managing Director, Slipco Construction Pvt. Ltd. and Director, Global Institute of Management Technology,U-1, Shanti Kunj, Green Park Extension, New Delhi -110016
3.	Dr. A.K. Jain, Head, Department of Civil Engineering, Indian Institute of Technology, Roorkee - 247 667
4.	Dr. Mahabir Singh Atwal, Director, VSA India Pvt. Ltd., Jalandhar (Punjab)
5.	Dr. A.K. Gupta, Professor and Head, Structural Engineering Department M. B. M. Engineering College, J. N. V. University, Jodhpur (Rajasthan)
6.	Dr. H.K. Sharma, Professor and Head, Civil Engineering Department, NIT, Kurukshetra -136119 (Haryana)
7.	Dr. Ashok Sharma, Chief Executive, Cleantech International Foundation, 52/1, C.R. Park, New Delhi - 110019
8.	Shri Dharam Vir, IAS (Retd.), State Election Commissioner and former Chief Secretary Haryana State Election Commission, Haryana Nirvachan Sadan, Plot No. 2, Sector - 1 7, Panchkula (Haryana)
9.	Dr. I.K. Bhat, Director, Malaviya National Institute of Technology , JLN Marg, Jaipur-302017 (Rajasthan)
10.	Dr. Rajneesh Arora, Vice Chancellor, Punjab Technical University, Jalandhar (Punjab)
11.	Dr. Hirday Paul Singh, Joint Director (PR), CSK HP Agriculture University, Palampur, (Himachal Pradesh)
12.	Dr. Sunil Pandey, Director, Sant Longowal Institute of Engineering and Technology, Longowal (Punjab)
13.	Shri K K Walia, Ex-General Manager, SML Isuzu Limited, Ropar (Punjab)
14.	Dr. Gautam Bose, Deputy Director General, National Informatics Centre, A-Block, CGO Complex, Lodhi Road, New Delhi - 110 003
15.	Dr. Sandhya Chintala, Executive Director, Nasscom, International Youth Centre, Teen Murti Marg, Chanakyapuri, New Delhi 110 021
16.	Dr. MK Surappa, Director IIT, Ropar (Punjab)

6.0 AUDITED ACCOUNTS

The Audited Accounts of the Institute for the year 2011-2012 duly certified by Accountant General's office are enclosed at **Annexure IV**.

INSTRUCTIONAL MATERIAL DEVELOPMENT

The following instructional material has been developed by the institute faculty during the year 2011-12 :

Sr. No.	Instructional Material Developed	Author(s) Name
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PRINT MATERIAL

TEXT BOOKS

- | | | |
|----|--|-----------------|
| 1. | English and Communication Skills (Vol. I and II), M/s Abishek Publisher, Chandigarh | PK Singla et.al |
| 2. | CNC Machines (Revised Edition) | BS Pabla |

MODULES

- | | | |
|----|---|--------------|
| 1. | Achievement Motivation Training (AMT) through Simulation Exercises and Business Games | EDIC Faculty |
| 2. | Certified Lead Auditors' Training Programme on ISO 9001:2008 | EDIC Faculty |
| 3. | Quality Assurance and NBA Accreditation in Technical Institution | EDIC Faculty |
| 4. | Orientation on Industry Institute Interaction for TPOs and other Faculty Members | EDIC Faculty |
| 5. | TQM with Six Sigma and ISO 9000 Certification Audits | EDIC Faculty |
| 6. | Entrepreneurship Development for Accreditation of Trainer-Motivators (ATMs) | EDIC Faculty |

READERS

- | | | |
|----|--|------------|
| 1. | Evaluation : Concept, Types and Purposes | PK Tulsi |
| 2. | Multiple Choice Questions/Items | PK Tulsi |
| 3. | Setting Question Papers | PK Tulsi |
| 4. | Portfolio and Rubrics | PK Tulsi |
| 5. | Managing Conflict | PK Tulsi |
| 6. | Managing Change | PK Tulsi |
| 7. | Experimental Research | Sunil Dutt |

Sr. No.	Instructional Material Developed	Author(s) Name
8.	Pavement Design for Roads in Rural Areas	AK Duggal
9.	Pile Foundations – (revised edition)	AK Duggal
10.	Bearing Capacity of Shallow Foundations – (revised edition)	AK Duggal

OTHER PRINT MATERIAL

(BOOKLETS, COURSE MATERIAL etc.)

1.	Principles and Practices of Management	DD Sharma
2.	Technical and Vocation Education of the Differently Abled Persons	JS Saini
3.	Recent Trends in Education and Training of the Differently Abled Persons	JS Saini
4.	Effective Management of Polytechnics	YK Anand RK Wats
5.	Achieving Managerial Excellence	YK Anand RK Wats
6.	Emerging Trends in Civil Engineering	SK Sharma Himmi Gupta
7.	Reforms in Assessment and Certification System	CDC Faculty
8.	Generic Skills Development (Vol. I and II)	CDC Faculty
9.	Mobile Computing	E&CE Faculty
10.	Computer Networks	E&CE Faculty
11.	Signal Processing with MATLAB	E&CE Faculty
12.	MATLAB with Applications	E&CE Faculty
13.	Wireless and Mobile Communication	E&CE Faculty
14.	GSM to GPRS	E&CE Faculty
15.	DSP using MATLAB	E&CE Faculty
16.	Introduction to Embedded System	E&CE Faculty
17.	Introduction to System Designing	E&CE Faculty
18.	Optimization Techniques	E&CE Faculty
19.	MATLAB Based ADSP	E&CE Faculty
20.	GSM and 3 G Communication	E&CE Faculty
21.	ANN with MATLAB	E&CE Faculty
22.	Introduction to Wireless LANs	E&CE Faculty
23.	Advanced VLSI Design	E&CE Faculty

Sr. No.	Instructional Material Developed	Author(s) Name
24.	FPGA Based DSD	E&CE Faculty
25.	Advanced Embedded System	E&CE Faculty
26.	Preparing Students for Job Interviews	EMGT Faculty
27.	Reforms in Examination System	EMGT Faculty
28.	Modern Office Management and Evaluation	EMGT Faculty
29.	Communication and Presentation Skills	EMGT Faculty
30.	Personality Development	EMGT Faculty
31.	Effective Teaching	EMGT Faculty
32.	Research Methodology	EMGT Faculty
33.	Student Evaluation and Setting Question Papers	EMGT Faculty
34.	Pedagogy	EMGT Faculty
35.	Performance Appraisal and Professional Development	EMGT Faculty
36.	Building Positive Attitude	EMGT Faculty
37.	Competencies for 21 st Century	EMGT Faculty
38.	Induction Training Programme for Newly Recruited Teachers	EMGT Faculty
39.	Student Evaluation	EMGT Faculty
40.	Modern Office Management	EMGT Faculty
41.	Soft Computing	ETV Faculty
42.	3D Animation and Multi Media Supported Learning	ETV Faculty
43.	Video and Video Recording and Editing	ETV Faculty
44.	Camera Techniques and Operation	ETV Faculty
45.	Advanced Digital Signal Processing	ETV Faculty
46.	Advanced Antenna and Microwave	ETV Faculty
47.	LMS, 2D and 3D Animation and Multimedia	ETV Faculty
48.	Script Writing for TV and Radio	ETV Faculty
49.	Ann and Optimization Techniques and Application	ETV Faculty
50.	Micro-Enterprise Development and Management	Rural Dev Faculty
51.	Eco-Water Literacy and Sanitation Awareness Camps	Rural Dev Faculty
52.	Income Generation and Employment Enhancement in Rural India	Rural Dev Faculty
53.	Gender Sensitization and Capacity Building for Marginalized and Rural Women	Rural Dev Faculty

Sr. No.	Instructional Material Developed	
54.	Earthquake Risk Management	Rural Dev Faculty
55.	Low Cost Housing in Disaster Prone Areas	Rural Dev Faculty
56.	Technologies for Rural India	Rural Dev Faculty
57.	Energy Efficient Buildings for Rural India	Rural Dev Faculty
58.	Fashion and Textile Design	Rural Dev Faculty
59.	Integrated Village Development – A Practical Approach	Rural Dev Faculty
60.	Community Appraisal Techniques for Rural Development	Rural Dev Faculty
61.	Disaster Management	Rural Dev Faculty
62.	Climate Change, Disaster and Sustainable Development	Rural Dev Faculty
63.	Renewable Energy Based Technologies	Rural Dev Faculty
64.	Climate Changes and Disaster Management	Rural Dev Faculty
65.	Enhancing Motivation and Self Esteem	RK Wats
66.	Strategic Management	RK Wats
67.	Training Need Analysis	RK Wats
68.	Industrial Automation and Control	SS Dhami
69.	Manufacturing Technology – II	PS Rao

NON PRINT MATERIAL

VIDEO PROGRAMMES

1. Strategic Planning in Technical Institutions
2. 3Ds Max Lighting and Camera (Photometric Lights)
3. 3Ds Max Animation
4. 3Ds Max Visual Effects
5. NBA Accreditation Criteria and Weightages for Diploma, PG, Management Programmes
6. Evaluation Guidelines for NBA Accreditation of Undergraduate Engineering Programmes
7. Learning Effective English (Part – 1)
8. Learning Effective English (Part – 2)
9. Learning Effective English (Part – 3)
10. Learning Effective English (Part – 4)

Sr. No.	Instructional Material Developed
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11. Learning Effective English (Part – 5)
12. Learning Effective English (Part – 6)
13. Learning Effective English (Part – 7)
14. Learning Effective English (Part – 8)
15. NBA Accreditation Parameters for Evaluation (Part – I)
16. NBA Accreditation Parameters for Evaluation (Part – II)
17. Corel Draw Menu Bar (Revision)
18. Corel Draw Tool Box (Part - 1)
19. Corel Draw Tool Box (Part – 3)
20. Corel Draw : How to Design Logo (Part – 1)
21. Corel Draw : How to Design Logo (Part – 3)
22. Corel Draw Menu Bar (Part – 3)
23. Corel Draw : How to Design Logo (Part – 2)
24. Corel Draw : How to Design Logo (Part – 4)
25. Corel Draw : How to Design Poster (Part – 1)
26. Corel Draw : How to Design Poster (Part – 2)
27. Multirate Signal Processing (Part – 1)
28. Multirate Signal Processing (Part – 2)
29. Computer Peripherals
30. A Unified Approach to Signal Processing and Control (Part -1)
31. A Unified Approach to Signal Processing and Control (Part – 2)
32. Corel Draw : How to Design Magazine Cover
33. Corel Draw : How to Design Catalogue (Part – 2)
34. Corel Draw : How to Design Brochure
35. Bio Reactor Design and Process Scale up
36. Corel Draw Menu Bar (Part – 1)
37. Corel Draw Menu Bar (Part – 2)
38. Digital Signal Processing and Application (Part -1)
39. Digital Signal Processing and Application (Part – 2)
40. Wavelet Transforms and its Application to Signal Processing (Part – 1)
41. Wavelet Transforms and its Application to Signal Processing (Part – 2)

Sr. No.	Instructional Material Developed
42.	Importance of Signal Processing in Radar: A Special Case of Through Wall Imaging in UWB Range
43.	Digital Filters
44.	Corel Draw : Magazine Page Layout Design (Part – 1)
45.	Corel Draw : Magazine Page Layout Design (Part – 2)
46.	Corel Draw : Tool Box – 2
47.	Corel Draw : Book Cover Designing
48.	Corel Draw : How to Design Catalogue (Part – 1)
49.	Corel Draw : How to Design Catalogue (Part – 2)
50.	Corel Draw : How to Design Billboard
51.	Antennas Advances for Wireless Communication (Part – 1)
52.	Antennas Advances for Wireless Communication (Part – 2)
53.	Antennas Advances for Wireless Communication (Part – 3)
54.	IE3D Overview
55.	Neuro Finite Difference Time Domain Techniques (NFDTD)
56.	Digital Signal Processor and Architecture
57.	Typical Digital Signal Processing Operations
58.	Microwave Network and Circuit (Part – 1)
59.	Microwave Network and Circuit (Part – 2)
60.	Microwave Network and Circuit (Part – 3)
61.	Elements of Microwave and mm Wave Measurements
62.	Cautions for Wireless Communication Engineers and Scientist
63.	Integration of Information and Communication Technology in Education : Some Considerations
64.	Advances in Antenna Engineering : Fractal Antenna
65.	Advances in Antenna Engineering : Different Varients of Fractal Antenna
66.	Searching Design of Sierpinski Gasket Microstrip Patch Antenna Using Real Coded Genetic Algorithm

A. PAPERS PUBLISHED BY THE INSTITUTE FACULTY

Sr. No.	Title of the Paper Published	Author(s) Name
APPLIED SCIENCE		
1.	“Effects of Chemical Analytes on Zinc Tetraphenylporphine Thin Films Studied by Vibration Spectroscopy and Density Functional Theory” published in Journal on Vibrational Spectroscopy 61(2012) 188-198	BC Choudhary et.al
CIVIL ENGINEERING		
2.	“Computer Software for Design of Flexible Pavement by Triaxial and Burmister Method”, published in Journal of Engineering and Technology Education, Vol. 5, No. 1, Jan-Jun, 2011	H Sood PM Jyothi
CURRICULUM DEVELOPMENT CENTRE		
3.	“Polymer Concrete in Construction” published in Journal of Indian Buildings Congress, Volume 18, No. 2, 2011	S K Gupta
4.	“Economics of Using Modern Construction Materials”, published in Journal of Indian Buildings Congress, Volume 18, No. 2, 2011	S K Gupta
COMPUTER SCIENCE		
5.	“Modified Montgomery Modular Multiplication for RSA Cryptosystem”, published in International Journal of Computational Intelligence and Information Security, Vol.2, No. 939, Sep, 2011	Maitreyee Dutta et.al
6.	“NIMBLE @ ITECECNOGRID VS ALCHEMI.NET: A Performance Comparison”, published in International Journal of Distributed and Parallel Systems (IJDPS) Vol.2, No.6, ISSN: 0976-9404(online); 2229-3949 (print) DOI: 10.5121/ijdps.2011.260887, Nov. 2011	Maitreyee Dutta et.al
7.	“A Survey of Techniques for Improving Classification Performance of Remote Sensing Images”, accepted for publication in International Journal of Engineering Research and Applications (IJERA)	Maitreyee Dutta et.al
8.	“Nimble@ITCEcnoGrid: A Grid in Research Domain for Weather Forecasting”, accepted for publication in International Journal of Grid Computing and Applications (IJGCA). ISSN: 0976-9404(Online); 2229-3949 (print)	Maitreyee Dutta et.al

Sr. No.	Title of the Paper Published	Author(s) Name
9.	"A Grading System for Fruits Maturity Using Neural Networks Approach", published in International Journal of Advanced Research in Computer Science, Vol.2, No.6, Nov.-Dec. 2011	Maitreyee Dutta et.al
10.	"An Agreement Protocol to Exploit and Handle Byzantine Faulty Nodes in Authenticated Hierarchical Configuration", published in International Journal of Grid and Distributed Computing Vol. 4, No.4, Dec 2011	Poonam Saini et.al
EDUCATIONAL TELEVISION CENTRE		
11.	"Modified Biogeography-based Optimization (MBBO)", published in International Journal of Bio-Inspired Computation, vol.3, no.4, pp. 252-266, 2011.	SS Pattnaik et.al
12.	"Bandwidth Enhancement and Size Reduction of Microstrip Patch Antenna by Magnetoinductive Waveguide Loading," published in Journal of Wireless Engineering and Technology, vol. 2, no. 2, pp. 37-44, 2011.	SS Pattnaik et.al
13.	"A Metamaterial Inspired Miniaturized Phi Shaped Antenna", published in International Journal of Physical Sciences Vol. 6, issue 18, pp. 4378-4381, 9 Sep, 2011.	SS Pattnaik et.al
14.	"Rectangular Slotted Microstrip Patch Antenna With Partially Loaded Metamaterial Ground Plane," published in International Journal of Microwave and Optical Technology, Vol.7, No.1, pp. 01-10, Jan 2012.	SS Pattnaik et.al
15.	"Magneto-inductive Waveguide Loaded Microstrip Patch Antenna," published in International Journal of Microwave and Optical Technology, Vol.7, No.1, pp. 11-20, Jan 2012.	SS Pattnaik et.al
16.	"Design and Development of Diamond Shape Fractal Antenna for Wireless Communication," published in International Journal of Microwave and Optical Technology, Vol.7, No.2, pp.101-106, Mar 2012.	SS Pattnaik et.al
17.	"Frequency Switching of Electrically Small Patch Antenna using Metamaterial Loading," Indian Journal of Radio and Space Physics, vol.40, no.3, pp.159-165, Jun 2011.	SS Pattnaik et.al
18.	"A Metamaterial Inspired Miniaturized Phi Shaped High Gain Antenna for Skin Cancer Detection", accepted for publication in Scientific Research and Essays	SS Pattnaik et.al
19.	"Broad and High Gain Microstrip Patch Antenna for WLAN", accepted for publication in Indian Journal of Radio and Space Physics	SS Pattnaik et.al
ENTREPRENEURSHIP DEVELOPMENT AND INDUSTRIAL COORDINATION		
20.	"Identifying and Ranking Critical Success Factors for Implementation of Total Quality Management in Indian Manufacturing Industry Using TOPSIS", published in The Asian Journal of Quality, Vo. 12, Issue 1, pp124-138, Emerald Group Publishing Limited, United Kingdom, 2011	DD Sharma et.al

Sr. No.	Title of the Paper Published	Author(s) Name
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ELECTRONICS AND COMMUNICATION ENGINEERING

21.	“FPGA” Based Area Efficient Edge Detection Filter for Image Processing Applications”, published in International Journal of VLSI and Signal Processing Applications, Vol.1, Issue 2, pp.38-41, ISSN: 2231-3133, May, 2011	Rajesh Mehra et.al
22.	“FPGA-Based Design of High –Speed CIC Decimator for Wireless Applications”, published in International Journal of Advanced Computer Science and Applications (IJACSA), Vol.2, No.5, pp. 59-62, ISSN: 2156-5570 (Online) & ISSN: 2158-107X(Print) May, 2011	Rajesh Mehra et.al
23.	“Modified PSO Based Adaptive IIR Filter Design for System Identification on FPGA”, published in International Journal of Computer Applications (IJCA), Vol.22, No.5, pp.1-7, ISBN: 978-93-80749-36-2, May, 2011	Rajesh Mehra et.al
24.	“Design and Analysis of Fuzzy Clustering Algorithms for Data Partitioning Applications”, published in International Journal of VLSI and Signal Processing Applications, Vol.1, Issue 2, pp. 52-56, ISSN 2231-3133, May, 2011	Rajesh Mehra et.al
25.	“Low Power, Delay Optimized Buffer Design using 70nm CMOS Technology”, published in International Journal of Computer Applications (IJCA), Vol.22, No.3, pp. 13-18, ISBN:978-93-80749-34-5, May, 2011	Rajesh Mehra et.al
26.	“High Speed CT Image Reconstruction Using FPGA”, published in International Journal of Computer Applications (IJCA), Vol.22, No.4, pp. 7-10, ISSN: 0975-8887, ISBN: 978-93-80749-35-0, May, 2011	Rajesh Mehra et.al
27.	“FPGA Based Area Efficient Costas Loop Receiver”, published in Global Journal of Computer Application and Technology, Vol. 1, Issue 2, pp.141-145, May, 2011	Rajesh Mehra et.al
28.	“Reconfigurable Efficient Design of Viterbi Decoder for Wireless Communication Systems”, published in International Journal of Advanced Computer Science and applications (IJSCSA), Vol.2, No.7, pp. 132-136, ISSN:2156-5570 (Online) & ISSN: 2158-107C(Print), Jul, 2011	Rajesh Mehra et.al
29.	“FPGA Implementation of Viterbi Decoder Using Trace Back Architecture”, published in International Journal of Engineering Trends and Technology (IJETT), pp. 131-134, ISSN: 2231-5381, Issue May-Jun, 2011	Rajesh Mehra et.al
30.	“FPGA Based Design and Implementation of Video Filter”, published in Journal of World of Computer Science and Information Technology, Vol.1, No.5, pp. 235-238, ISSN:2221-0741, Jun, 2011	Rajesh Mehra et.al

Sr. No.	Title of the Paper Published	Author(s) Name
31.	"Determination and Impact Isolation Parameters on Substrate Coupling Noise", published in International Journal of Research and Innovation in Computer Engineering (IJRIC), Vol.1, Issue 1, pp. 1-5, ISSN 2249-6580, Aug, 2011	Rajesh Mehra et.al
32.	"FPGA Based Gaussian Pulse Shaping Filter for Error Removal", published in International Journal of Research and Innovation in Computer Engineering (IJRIC), Vol. 1, Issue 1, pp. 23-28, ISSN 2249-6580, Aug, 2011	Rajesh Mehra et.al
33.	"FPGA Based Design of CIC Interpolator Using Embedded LUT Structure" published in ISP Journal of Electronics Engineering, Vol. 1, Issue1, pp. 1-4, ISSN 2250-0537, Oct, 2011	Rajesh Mehra et.al
34.	"FPGA Implementation of Area and Speed Efficient Kalman Filter for Wireless Communication Applications", published in ISP Journal of Electronics Engineering, Vol. 1, Issue 1, pp. 26-29, ISSN 2250-0537, Oct, 2011	Rajesh Mehra et.al
35.	"Reconfigurable DNA Sequence Alignment for Bioinformatics Applications", published in ISP Journal of Electronics Engineering, Vol. 1, Issue 2, pp. 31-36, ISSN 2250-0537, Dec 2011	Rajesh Mehra et.al
36.	"Efficient FPGA Implementation of Direct Digital Frequency Synthesizer for Software Radios", published in International Journal of Computer Applications, Vol. 37, No.10, pp. 25-29, ISSN:0975-8887, ISBN:978-93-80866-07-3, New York, USA, Jan, 2012	Rajesh Mehra et.al
37.	"Biological Sequence Alignment for Bioinformatics Applications Using Matlab", published in International Journal of Computer Science and Emerging Technologies (IJCSSET), Vol. 2, No.5, pp. 310-315, ISSN No. 2044-6004, Oct, 2011	Rajesh Mehra et.al
38.	"FPGA Implementation of FPGA Code for Digital Video Broadcasting", published in International Journal of Electrical, Electronics and Communication Engineering (IJECE), Vol. 2, Issue 2, pp.68-77, VRSD, ISSN No. 2231-3346, Feb, 2012	Rajesh Mehra et.al
39.	"Design Analysis of Mathematical Model to Investigate Cross Layer Issue for Wireless Sensor Networks", published in International Journal of Electronics Engineering, pp. 247-250, Series Publications, ISSN:0973-7383, 3(2), 2011	Kanika Sharma et.al
40.	"Design Analysis of Mathematical Model for Collision Affected Environment in Wireless Sensor Network" published in International Journal of Ad hoc, Sensor and Ubiquitous Computing (IJASUC), Vol.2, No.3, Sep, 2011	Kanika Sharma et.al
41.	"LDPC Coded OFDM System with Reduced Peak-to-Average Power Ratio(PAPR) using Selective Mapping (SLM)", published in International Journal of Applied Engineering, Research, Vol. 6, No.18, pp 2887-2890 (IJAER, Spl Issue) 2011	Garima Saini et.al

Sr. No.	Title of the Paper Published	Author(s) Name
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EDUCATION AND EDUCATIONAL MANAGEMENT

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|-----|---|------------------|
| 42. | “A Study of Occupational Stress of Secondary School Teachers of Punjab in Relation to Gender, Streams of Teaching and Experience”, abstract published in Researcher’s Voice, Vol.1, Issue 2, at Kasturi Ram College of Higher Education, Narela, Delhi, Oct-Mar, 2012 | SP Bedi et.al |
| 43. | “Computer Based Concept Mapping in Acquisition of Concepts of Chemistry”, published in Educational Research (ISSN 0976 9994), Vol. IX, 2011 | Sunil Dutt et.al |
| 44. | Contributed one chapter on “Student Evaluation” in a book titled Applied Aspects of Educational Technology, published by S Chand and Company Ltd., New Delhi, 2012 | Sunil Dutt |

ELECTRICAL ENGINEERING

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| 45. | “Trends in Fractional Order Controllers”, published in International Journal of Emerging Technology and Advanced Engineering Vol. 2, No. 3, Mar, 2012 | S Chatterji et.al |
| 46. | “Transient Stability Analysis of SMIB System Equipped with Hybrid Power Flow Controller”, published in International Journal of Emerging Technology and Advanced Engineering , Vol. 2, No. 2, Feb, 2012 | Lini Mathew
S Chatterji |
| 47. | “Audio Techniques for Representing Graphics for Visually Challenged Persons – An Overview”, published in Journal of Engineering and Technology Education, Vol. 5, No.2, Jul – Dec, 2011 | S Chatterji et.al |
| 48. | “Studies on Electrical Properties of Wheat as a Function of Moisture Content”, published in SCI Journal of Quality Assurance and Safety of Crops and Food, Vol. 3 No. 4, pp. 198-204, Dec, 2011 | Ritula Thakur
S Chatterji |
| 49. | Fuzzy Logic Based MPPT Controllers for Three Phase Grid Connected Inverters”, accepted for publication in International Journal of Sustainable Energy, Taylor and Francis, U.K. | S Chatterji et.al |
| 50. | “Techno-Economic Analysis and Modelling of Standalone vs Grid Connected Small Hydro Power Stations – A Review of Literature”, published in International Journal of Sustainable Energy, Taylor and Francis, U.K. Jun, 2011 | S Chatterji et.al |
| 51. | “Transient Stability Analysis of Electrical Power Systems by Means of LabVIEW Based Simulation of STATCOM”, published in International Journal of Advances in Engineering Sciences, Vol. 1, No.2, 2011 | Lini Mathew
S Chatterji |
| 52. | “Design and Development of Fuzzy Logic Controller to Control the Speed of Permanent Magnet Synchronous Motor”, published in Journal of Electrical and Electronics Engineering and Research, Vol.3, No. 3, 2011 | Lini Mathew |

Sr. No.	Title of the Paper Presented/Accepted	Author(s) Name
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MECHANICAL ENGINEERING

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| 53. | “Multi-objective Optimisation of Electrical Discharge Machining Process Using Derringer’s Desirability Function Approach” published in International Journal of Materials Engineering Innovation, Vol. 2, No. 3/4 , pp.203-221, 2011 | SS Banwait et.al |
| 54. | Mathematical Modeling of Electrical Discharge Machining Process Through Response Surface Methodology”, published in International Journal of Scientific and Engineering Research, Vol.2, Issue 11, pp. 1-10, Nov. 2011 | SS Banwait et.al |

RURAL DEVELOPMENT

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| 55. | “An Exploratory Case Study on Employee Grassroots Initiatives and Policy Formulation for Mitigation Climate Change”, published in the IUP Journal of Governance and Public Policy, Vol. 6, No.3, ISSN 0973-3736, pp-88-100, Sep, 2011 | Poonam Syal et.al |
| 56. | “Audio Techniques for Representing Graphics for Visually Challenged Persons – An Overview”, published in Journal of Engineering and Technology Education, Vol.5, No.2 ISSN 2229-631X, pp-22-29, Jul-Dec, 2011 | Poonam Syal et.al |

B. PAPERS PRESENTED/ACCEPTED AT IMPORTANT CONFERENCES AND SEMINARS

APPLIED SCIENCE

- | | | |
|----|---|--------------------|
| 1. | “Effect of Pyridine Vapours on Cobalt Phthalocyanine (CoPc) Thin Films – Resonance Raman Study”, presented in DAE-BRN National Laser Symposium (NLS-20)”, Anna University, Chennai, P100, 09-12 Jan, 2012 | BC Choudhary et.al |
| 2. | “Applied Sciences-The Foundation of Engineering and Technology”, presented in AICTE&IAPT National Seminar at SRS Government Polytechnic College for Girls, Ludhiana, Punjab, P50, 23-24 Feb, 2012 | BC Choudhary et.al |
| 3. | “Interaction of Pyridine Vapours with Inc Tetraphenylporphine Thin Films Studied by Vibrational Spectroscopy and Density Functional Theory”, presented in 6 th Chandigarh Science Congress (CHASCON 2012), PS_ 31, 26-28 Feb, 2012 | BC Choudhary et.al |
| 4. | “Temperature Monitoring of Head Up Display System using FBG Sensor”, presented in the National Conference on Advances in Video, Cyber Learning and Electronics (ADVICE2012) P_id-14, NITTR Chandigarh,01-02 Mar, 2012 | BC Choudhary et.al |

Sr. No.	Title of the Paper Presented/Accepted	Author(s) Name
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CENTRE FOR PHYSICALLY CHALLENGED PERSONS

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| 5. | “Exploring Latent Talent of the Deaf Through the Study of Fine Art Paper”, presented during National Conference at Government Medical College and Hospital, Sector 32, Chandigarh, Apr, 2011 | J S Saini |
| 6. | “Mainstreaming the Differently Abled Persons in Technical and Vocational Education in India – Current Status, Issues and Challenges”, presented in National Conference on Advances in Video, Cyber Learning and Electronics (ADVICE 2012) at NITTTR Chandigarh 01-02 Mar, 2012 | J S Saini |

CIVIL ENGINEERING

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|-----|--|--------------------------|
| 7. | “Base Isolation”, presented in National Seminar on Emerging Trends in Civil Engineering at NITTTR, Chandigarh 16-17 Nov, 2011 | AK Duggal |
| 8. | “Soil Stabilization Techniques for Pavement Subgrade”, presented in National Seminar on Emerging Trends in Civil Engineering at NITTTR, Chandigarh 16-17 Nov, 2011 | SK Sharma et.al |
| 9. | “Pavement Subgrade Stabilization with Rice Husk Ash”, presented in National Conference on Technology and Management at College of Engineering Visnanagar (Gujarat) 20-21 Jan, 2012 | SK Sharma et.al |
| 10. | “Adaptive Neuro Fuzzy Approach for Permeability Prediction of Fly Ash and RHA Stabilised Soil”, presented in International Conference, ICETT, Kollam, Kerala, 20-21 Feb, 2012 | SK Sharma et.al |
| 11. | “Cement Concrete Paver Blocks- An Alternative for Load Construction”, presented during National Conference on Innovative Challenges in Civil Engineering, GZSIET, Bathinda 15-16 Mar, 2012 | H Sood |
| 12. | “An Innovative Techniques for Slope Stabilization – Soil Nailing”, presented during National Seminar on Emerging Trends in Civil Engineering at NITTTR, Chandigarh 16-17 Nov, 2011 | VK Sonthwal |
| 13. | “Overview of Scrutiny Process of Structural Design”, presented during National Seminar on Emerging Trends in Civil Engineering at NITTTR, Chandigarh 16-17 Nov, 2011 | SK Sharma
Himmi Gupta |

COMPUTER SCIENCE

- | | | |
|-----|---|----------------------|
| 14. | “Performance Evaluation of ID Assignment Schemes for Wireless Sensor Networks”, published in the proceedings of Springer International Conference on Advances in Computing and Communications, pp.608-615, Kochi, 22-24 Jul, 2011 | C Rama Krishna et.al |
| 15. | “A Novel Feature Set for Recognition of Similar Shaped Handwritten Hindi Characters Using Machine Learning”, published in proceedings of First International Conference on Computer Science, Engineering and Applications (CCSEA 2011), CS&IT, pp.25-35, Chennai, 15-17 Jul, 2011 | C Rama Krishna et.al |
| 16. | “Object Oriented Inheritance Metric – Reusability Perspective”, published in proceedings of IEEE International Conference on Computing, Electronics and Electrical Technologies (ICCEET-2012), pp. 852-859, Kumaracoil, Nagercoil, Tamil Nadu, 21-22 Mar, 2012 | C Rama Krishna et.al |

Sr. No.	Title of the Paper Presented/Accepted	Author(s) Name
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| 17. | "Intrusion Detection Techniques: A Review", published in proceedings of National Conference on Emerging Trends in Computer Engineering and Information Technology, NITTTR, Chandigarh pp. 212-218, 22-23 Mar, 2012 | C Rama Krishna et.al |
| 18. | "Need for Back Links Analysis in Search Engine Optimization", published in proceedings of National Conference on Emerging Trends in Computer Engineering and Information Technology, NITTTR, Chandigarh pp. 185-188, 22-23 Mar, 2012 | C Rama Krishna et.al |
| 19. | "An Agreement Protocol to Handle Byzantine Failures in Authenticated Hierarchical Configuration", during International Conference on Advanced Computing, Networking and Security, NIT Surathkal, 16-18, Dec 2011 | Poonam Saini et.al |

CURRICULUM DEVELOPMENT CENTRE

- | | | |
|-----|--|-----------------|
| 20. | "Computer Assisted Curriculum Development", presented in National Seminar on e-governance in Technical Education at NITTTR, Chandigarh 6-7 September, 2011 | PK Singla et.al |
| 21. | "Increasing Efficiency of the Solar Cooker by Using Carbon Dioxide" presented in National Conference on Recent Approach for the Development of Higher Technical Education towards Economic Growth of the Country (RADHTE) at SRMIET, Naraingarh (Haryana) September 9-11, 2011 | PK Singla et.al |
| 22. | "Understanding Knowledge Management and Marketing Knowledge Worker in an Organisation – A Case Study" in International Conference on Frontier Global Issues and Challenges in New Millennium on Emerging Economy, Accounting, Finance, Information and Communication Technology, Business and Management at RDRF, Jaipur 5-6 January, 2012 | PK Singla et.al |
| 23. | "Role of Applied Sciences in Engineering and Technology" presented in National Seminar-Cum-Workshop on How to Promote Applied Sciences (Basics) to Strengthen Technical Education at SRS Government Polytechnic, Ludhiana, 23-24 February, 2012 | PK Singla et.al |
| 24. | "Issues Related to Applied Science in Engineering Education" presented in National Seminar-Cum-Workshop at SRS Government Polytechnic, Ludhiana, 23-24 February, 2012 | PK Singla et.al |

EDUCATIONAL TELEVISION CENTRE

- | | | |
|-----|--|-------------------|
| 25. | "Memetic Algorithm and its Application to Function Optimization and Noise Removal", World Congress on Information and Communication Technologies (WICT 2011) pp. 752-757, Mumbai, 2011 | SS Pattnaik et.al |
| 26. | "PSO Based Memetic Algorithm for Unimodal and Multimodal Function Optimization", SEMCCO 2011, LNCS 7076, Part I, Springer-Verlag Berlin Heidelberg and International Conference on Swarm, Evolutionary and Memetic Computing (SEMCCO 2011), pp. 127-134, Visakhapatnam, 2011 | SS Pattnaik et.al |

Sr. No.	Title of the Paper Presented/Accepted	Author(s) Name
27.	“Metamaterial Loaded Dual Band Microstrip Patch Antenna”, The Fifth International Congress on Advanced Electromagnetic Materials in Microwaves and Optics, (Metamaterial 2011) (Metamorphose), Barcelona, Spain, 10-15 Oct 2011	SS Pattnaik et.al
28.	“Metamaterial Based Planar Magnetoinductive Waveguide Antenna”, IEEE International Workshop on Electromagnetics: Applications and Student Innovation Competition, Taipei, Taiwan, 08-10 Aug, 2011	SS Pattnaik et.al
29.	“Metamaterial Array Loaded Magnetoinductive Waveguide Antenna”, IEEE International Workshop on Electromagnetics: Applications and Student Innovation Competition, Taipei, Taiwan, 08-10 Aug, 2011	SS Pattnaik et.al
30.	“Metamaterial Loaded Square Slotted Dual Band Microstrip Patch Antenna”, IEEE Applied Electromagnetic Conference and Indian Antenna Week (AEMC 2011) (IAW 2011), Kolkata, 14-16 Dec, 2011	SS Pattnaik et.al
31.	“Metamaterial Loaded Dual Band Microstrip Patch Antenna”, IEEE Applied Electromagnetic Conference and Indian Antenna Week (AEMC 2011) (IAW 2011), Kolkata, 14-16 Dec, 2011	SS Pattnaik et.al
32.	“Memetic Algorithm Using PSO for Unimodal and Multimodal Function Optimization”, National Conference on Machine Vision and Image Processing (MVIP 2011), Pune, pp. 200-203, 2011	SS Pattnaik et.al
33.	“Sustainable Blended Learning in Higher Education”, National Conference on Role of ICT in Social Application and Industrial Development (ICT 2012) pp. 381-383, Mar, 2012	SS Pattnaik et.al
EDUCATION AND EDUCATIONAL MANAGEMENT		
34.	“Role of Punjab Technical University in Improving Academic Quality of Technical Education - A Critique”, presented in 41 st ISTE Annual Convention at Baba Banda Singh Bahadur College of Engineering and Technology, Fategarh Sahib, 16-18 Dec, 2011	PK Tulsi
35.	“Role of Technology in Skill Development”, presented in International Conference on Integration of Academic Courses with Vocational Education in Secondary Schools at National Institute of Open School, New Delhi 17-19 Feb, 2012	PK Tulsi
36.	“Teaching of Applied Science in Technical Institutions”, presented in AICTE Sponsored National Seminar-cum-Workshop How to Promote, Applied/Basic Sciences to Strengthen Technical Education at Government Polytechnic College for Girls, Ludhiana 23-24 Feb, 2012	PK Tulsi
37.	“Integration of Information and Communication Technology in Education: Some Considerations”, presented in National Conference on Advances in Video, Cyber Learning and Electronics (ADVANCE-2012), at NITTTR Chandigarh, 01-02 Mar, 2012	PK Tulsi

Sr. No.	Title of the Paper Presented/Accepted	Author(s) Name
38.	"Relationship Between Emotional Intelligence and Organizational Stress", presented in International Conference of Applied Psychology at Panjab University, Chandigarh 24-25 Feb, 2012	SP Bedi et.al
39.	"Burnout among Secondary School Teachers in Relation to Extraversion Dimension of Personality", presented in International Conference of Applied Psychology at Panjab University, Chandigarh 24-25 Feb, 2012	SP Bedi et.al
40.	"A Study of Coping Strategies of Secondary School Teachers of Punjab from Different Streams of Teachings", abstract published in proceedings of International Conference on Applied Psychology at Panjab University, Chandigarh 24-25 Feb, 2012	SP Bedi et.al
41.	"Use of ICT for Professional Development of Educators of TVET", presented in International Conference on Preparing TVET Educators for the Next Generation at Kuala Lumpur, Malaysia, 12-13 Dec, 2011	Sunil Dutt Rakesh Wats KM Rastogi
42.	"ICTs for Professional Development of Teachers of Higher Education", presented in National Seminar at LLRM College of Education, Dhudike (Punjab), 5 Mar, 2012	Sunil Dutt
43.	"Quality Concerns in Educational Research", presented in International Conference on Quality Concerns in Education- Issues and Challenges at SIER, Mohali, 01 Oct, 2011	Sunil Dutt
44.	"Inclusive and Sustainable Growth" presented in CSO Bridge 2012 at CII NR Headquarter, Chandigarh 17 Feb, 2012	Sunil Dutt JS Saini
ELECTRICAL ENGINEERING		
45.	"Design and Analysis of a New Fractional Order PIV Controller with Velocity Acceleration Feed Forward for Disturbance Rejection in Servo System", during International Mechanical Engineering Congress (ASME) 2012	S Chatterji et.al
46.	"Review on Challenges in PID Performance and Trends in Fractional Controllers", during International Joint Conference on Computer and Information System and Engineering, University of Bridgeport, USA, 03-12 Dec, 2011	S Chatterji et.al
47.	"Adaptive Fuzzy Logic Based Aeration Control in Waste Water Treatment with Redundant System", during International Conference on Clean Energy and Climate Change, London, 16-20 Dec, 2011	S Chatterji et.al
48.	"Evolutionary Technique Based Compensator for z-shaped Pantograph System", during International Conference on Soft Computing for Problem Solving (SocPros 2011) IIT Roorkee, 20-22 Dec, 2011	Lini Mathew
49.	"Performance Analysis of 48 pulse VSC Based STATCOM in Mitigation of Voltage Dip caused by the Starting of a High Power Induction Motor", during International Conference on Power System Operation and Control, Sri Balaji College of Engineering & Technology, Jaipur (Rajasthan)	Lini Mathew S Chatterji

Sr. No.	Title of the Paper Presented/Accepted	Author(s) Name
50.	“Small Hydro-Power Development – An Overview and A Few Case Studies of Himalayan Region”, during International Conference on Deregulated Environment and Energy Markets 2011, Chitkara Institute of Engineering & Technology, Rajpura, 22-23 Jul, 2011	S Chatterji et.al
51.	“LabVIEW Based Simulation of SSSC for Transient Stability Enhancement in Electric Power Systems”, during XIICLEE, The 12 th Portuguese-Spanish Conference in Electrical Engineering, Ponta Delgada Azores, Portugal, 30 Jun – 02 Jul, 2011	Lini Mathew S Chatterji
52.	“Theoretical Analysis of Voltage Injection Capabilities of STATCOM during Voltage Sag”, presented in ISTE Sponsored National Conference on Power and Energy Systems NCPES-2011”, University College of Engineering, RTU, Kota, Rajasthan 23-24 Apr, 2011	Lini Mathew S Chatterji
53.	“Earthing Practices in Industry”, during International Conference on Recent Advancement in Technology and Management, Continental Group of Institutes, Jalvehra (Punjab), 5 Nov, 2011	Shimi SL
54.	“PV-P Spice Model for Optimisation of Battery Charging using Maximum Power Point Tracker”, published in the proceedings of World Renewable Congress, Sweden, 08-13 May, 2011	S Chatterji et.al

ELECTRONICS AND COMMUNICATION ENGINEERING

55.	“FPGA Based Efficient Interpolator Design using DALUT Algorithm” Computer Science and Information Technology (CS &IT)- during Computer Science Conference Proceedings (CSCP), Vol. 1, pp 51-62, ISSN: 2231-5403 (Online) AIRCC-2011	Rajesh Mehra et.al
56.	“FPGA Based High Speed BCH Encoder for Wireless Communication Applications”, during IEEE International Conference on Communication Systems and Network Technologies, pp. 576-579, Print ISBN: 978-1-4577-0543-4, 2011	Rajesh Mehra et.al
57.	“Design and Implementation of Reed Solomon Decoder for 802.16 Network Using FPGA”, during IEEE International Conference on Signal Processing, Computing and Control (ISPPCC), Jaypee University, Waknaghat, HP, March, 2012	Rajesh Mehra et.al
58.	“FPGA Implementation of Scrambler for Wireless Communication Applications” during International Conference on Wireless Networks and Embedded System, pp. 127-129, 2011	Rajesh Mehra et.al
59.	“Buffer Based CMOS Design for Glitch Removal” during National Conference on Advances in Video Cyber Learning and Electronics (ADVICE 2012), at NITTTR, Chandigarh 01-02 Mar, 2012	Rajesh Mehra et.al
60.	“VLSI Design of an Efficient Counter Using Linear Feedback Shift Register”, during National Conference on Advances in Video, Cyber Learning and Electronics (ADVICE 2012) at NITTTR, Chandigarh, 01-02 Mar, 2012	Rajesh Mehra et.al

Sr. No.	Title of the Paper Presented/Accepted	Author(s) Name
61.	"A Review of Global and Detailed Routing in VLSI Design", during National Conference on Advances in Video, Cyber Learning and Electronics (ADVICE 2012) at NITTTR, Chandigarh, 01-02 Mar, 2012	Rajesh Mehra et.al
62.	"CMOS Design of Hierarchical 8 x 8 Array of Array Multiplier", during National Conference on Advances in Video, Cyber Learning and Electronics (ADVICE 2012) at NITTTR, Chandigarh, 01-02 Mar, 2012	Rajesh Mehra et.al
63.	"Performance Analysis of TPSC and DPC Based D Flip Flop", during National Conference on Advances in Video, Cyber Learning and Electronics (ADVICE 2012) at NITTTR, Chandigarh, 01-02 Mar, 2012	Rajesh Mehra et.al
64.	"CMOS Design of 2:1 Multiplexer Using Complementary Pass Transistor Logic", during National Conference on Advances in Video, Cyber Learning and Electronics (ADVICE 2012) at NITTTR, Chandigarh, 01-02 Mar, 2012	Rajesh Mehra et.al
65.	"Low Power Design of Full Subtractor Using VeSFET", during National Conference on Advances in Video, Cyber Learning and Electronics (ADVICE 2012) at NITTTR, Chandigarh, 01-02 Mar, 2012	Rajesh Mehra et.al
66.	"Power Efficient VLSI Design of Comparator Using 90nm Technology", during National Conference on Advances in Video, Cyber Learning and Electronics (ADVICE 2012) at NITTTR, Chandigarh, 01-02 Mar, 2012	Rajesh Mehra et.al
67.	"VLSI Design of 8 bit by 8 bit Multiplier Using MOS Current Mode Logic during National Conference on Advances in Video, Cyber Learning and Electronics (ADVICE 2012) at NITTTR, Chandigarh, 01-02 Mar, 2012	Rajesh Mehra et.al
68.	"Area Efficient Design of Full Subtractor Using Independent Double Gate Transistor", during National Conference on Recent Advances in Electronics and Electrical Engineering, Dehradun, NCRAEEE-2012	Rajesh Mehra et.al
69.	"Area and Power Efficient Design of Full Subtractor Using Independent Double Gate Transistor", during National Conference on Recent Advances in Electronics and Electrical Engineering, Dehradun, NCRAEEE-2012	Rajesh Mehra et.al
70.	"Reconfigurable Antenna Using PIN Diode – A Review during National Conference on Advances in Video, Cyber Learning and Electronics (ADVICE 2012) at NITTTR, Chandigarh, 01-02 Mar, 2012	Garima Saini et.al
71.	"Current Trends in Reduction of Peak-to Average Power Ratio of SCFDMA Signal- A Review", during National Conference on Advances in Video, Cyber Learning and Electronics (ADVICE 2012) at NITTTR, Chandigarh, 01-02 Mar, 2012	Garima Saini et.al

Sr. No.	Title of the Paper Presented/Accepted	Author(s) Name
72.	“Review of ICI (Inter-Carrier Interference Cancellation) in OFDM System”, during National Conference on Advances in Video, Cyber Learning and Electronics (ADVICE 2012) at NITTTR, Chandigarh, 01-02 Mar, 2012	Garima Saini et.al
73.	“An Overview of Peak-Average Power Ratio Reduction Technique for MIMO-OFDM and Space Frequency Block Code MIMO-OFDM System”, during National Conference on Recent Innovations in Engineering and Technology (RIET-2012), Galaxy Group of Institutions, Dinapur, Ambala, 24-25 Mar, 2012	Garima Saini et.al
74.	“Analysis of VHO Protocols in UMTS and Wimax Heterogeneous Network” during International Conference on VLSI, Communication and Networks (VCAN 2011), pp. 396-398 at IET, Alwar, Rajasthan, 24-25 Dec, 2011	Garima Saini et.al
75.	FPGA Based High Speed BCH Encoder for Wireless Communication Applications”, during IEEE International Conference on Communication Systems and Network Technologies, pp. 576-579, Print ISBN: 978-1-4577-0543-4, 2011	Garima Saini et.al
ENTREPRENEURSHIP DEVELOPMENT AND INDUSTRIAL COORDINATION		
76.	“Accreditation of TVET System in India”, presented in an International Conference on Building Excellence in TVET System Through Accreditation at Melaka, Malaysia, 13 Jul, 2011	SK Dhameja Hemant Sood
MECHANICAL ENGINEERING		
77.	“A Review of Fuzzy Logic Based Control of Robotic Manipulators”, presented and published in the proceedings of ASME 2011 International Mechanical Engineering Congress and Exposition, Denver, Colorado, USA, 11-17 Nov, 2011	SS Dhami et.al
78.	“Design and Development of Assembly Line Using Ranked Positional Weight Technique”, presented during National Conference on Advances in Manufacturing Technology, NITTTR, Chandigarh, 15-16 Mar, 2012	SS Banwait et.al
79.	“An Overview of Reconfigurable Manufacturing System”, presented during National Conference on Advances in Manufacturing Technology, NITTTR, Chandigarh, 15-16 Mar, 2012	BS Pabla et.al
80.	“Improvement and Analysis of Productivity”, presented during National Conference on Advances in Manufacturing Technology NITTTR, Chandigarh, 15-16 Mar, 2012	BS Pabla et.al
81.	“Remote Monitoring and Fault Diagnostic System for Shovel and Trucks in an Open Pit Mine Based on GPS/GPRS”, presented during National Conference on Advances in Manufacturing Technology, NITTTR, Chandigarh, 15-16 Mar, 2012	BS Pabla et.al

Sr. No.	Title of the Paper Presented/Accepted	Author(s) Name
82.	"Improving Availability and Productivity of Mining Shovel Using Embedded System", presented during National Conference on Advances in Manufacturing Technology, NITTTR, Chandigarh, 15-16 Mar, 2012	BS Pabla et.al
83.	"An Impact of ERP on Performance of Small and Medium Enterprise: A Study of Indian Company", presented during ASME 2011 International Manufacturing Science and Engineering Conference, Oregon, USA, 13-17 Jun, 2011	SS Banwait et.al
84.	"Mathematical Modeling of Electrical Discharge Machining Process Through Response Surface Methodology", presented during ASME 2011 International Manufacturing Science and Engineering Conference, Oregon, USA, 13-17 Jun, 2011	SS Banwait et.al
85.	"Material Handling Cost Approach to Evaluate Facility Layout", presented during National Conference on Advances in Manufacturing Technology, NITTTR, Chandigarh, 15-16 Mar, 2012	Sunil D Jassal et.al
MEDIA AND CONTINUING EDUCATION CENTRE		
86.	"Emerging Challenges for Developing TVET Educators in India", presented during International Conference on Preparing TVET Educator for the Next Generation (NEXTGEN EDUCON 2011) organized by CPSC Manila and UNESCO-UNEVOC International Centre for TVET at Kuala Lumpur, Malaysia, 12-13 Dec, 2011	RK Wats Sunil Dutt
87.	"Examination Reforms - Need and Perspectives", presented during UGC Seminar on Examination Reforms, Government College, Sector 42, Chandigarh, 17-18 Feb, 2012	RK Wats
88.	"Impact of Awareness Campaign on Energy Conservation – A case Study of UT Chandigarh", during World Congress on Man and Nature-Global Climate Change and Bio-Diversity Conservation at Gurukula Kangri Vishavavidyalaya , Haridwar, 11-13 Nov, 2011	RK Wats
RURAL DEVELOPMENT		
89.	"As Exploratory Research Study on the Economics of Deploying Integrated Local Alternative Energy Solutions as a Sufficiency Economy Concept of Sustainable Development at Community Grassroots Level", published in the Proceedings of International Conference on Sufficiency Economy at Bangkok, Thailand, 16-17 Feb, 2012	Poonam Syal et.al
90.	"A Case Study of Solar Water Heating System at NITTTR, Chandigarh", Awareness Workshop on Promotion of Solar Water Heater Market Development in Urban Clusters at, CII under Ministry of New and Renewable Energy Implementing UNDP/GEF Assisted Project on Global Solar Water Heating Market Transformation and Strengthening Initiative: India County Programme, 28 Nov. 2011	JS Saini Poonam Syal
91.	"Strategies for Increasing Per Capita Income in Cluster of Indian Village Through Value Addition", Joint Workshop on Strategies for Increasing Per Capita Income for Rural Sector organised by CSTRI, DST, GOI and IIT Delhi, 09 Jan, 2012	JS Saini UN Roy

Sr. No.	Title of the Paper Presented/Accepted	Author(s) Name
92.	“Diffusion of Technical Skills and Appropriate Technologies by Community Polytechnics for Sustainable Livelihood and Village Centred Rainbow Revolution”, Joint Workshop on Strategies for Increasing Per Capita Income for Rural Sector organised by CSTRl, DST, GOI and IIT Delhi, 09 Jan, 2012	UN Roy J S Saini
93.	“Village Centred Holistic Development through Application of Appropriate Technologies presented during National Seminar on Green Energy for Empowering Rural India at IIT, Allahabad, 15-16 Apr, 2011	UN Roy
94.	“Climate Change, Disaster and Sustainable Development in India”, presented in National Conference on Environmental Protection and Sustainable Development , Department of Environmental Science, Nagarjuna University, Guntur, Andhra Pradesh, 28-29 Oct, 2011	UN Roy
95.	“Prospects and Challenges of Sustainable Agriculture”, presented in Inter-disciplinary Workshop on Sustainable Management at IIT, Delhi, 19-20 Jan, 2012	UN Roy
96.	“Climate Change and Natural Hazards Demand Macro Level Planning and Micro Level Interventions for Sustainable Development in India” presented during International Conference on Population Development and Disaster Management organised by Department of Geography and Disaster Management, Tripura University, Agartala 08-11 Feb, 2012	UN Roy et.al
97.	“Rural Marketing: A Changing Paradigm”, presented during National Seminar on Changing Marketing Paradigm in Product and Service Sector at CBS, Landran, Punjab, 10 Feb, 2012	Amit Goyal et.al
98.	“The New Dimensions of Tourism in India”, presented during National Seminar on Tourism and Hospitality Industry: Omissions, Innovations and Challenges, at University Institute of Hotel Management and Tourism (UIHMT), Panjab University, Chandigarh, 15-16 Oct, 2011	Amit Goyal et.al
99.	“Customer Relationship Management: An Indispensable Tool to Compete”, presented in National Conference on Emerging Trends and Various Challenges for Business Management at CBS Landran Punjab, 11 Nov, 2011	Amit Goyal et.al
100.	“Role of Ethics in Leadership”, during National Conference on Evolving Frontiers in Business and Technology at CBS Landran, Punjab, 15 Apr, 2011	Amit Goyal et.al
101.	“Energy Efficient Building-A Common Man Prospective”, presented during Awareness Workshop on Promotion of Solar Water Heater Market Development in Urban Clusters at, CII Under Ministry of New and Renewable Energy Implementing UNDP/GEF Assisted Project on Global Solar Water Heating Market Transformation and Strengthening Initiative: India County Programme, 28 Nov, 2011	Amit Goyal

TRAINING PROGRAMMES ATTENDED BY INSTITUTE FACULTY/ STAFF

Sr. No.	Area and Place of Training	Period	Attended by Shri/Ms
1.	Radiation Safety Aspects of Nucleonic Gauges at BARC, Mumbai	13-21 Jun	VK Sonthwal
2.	Earthquake Resistant Design of Reinforced Concrete and Masonry Buildings at Dr. BR Ambedkar NIT, Jalandhar	04-08 Jul	Amit Goyal
3.	AICTE Sponsored Faculty Development Programme on Intelligent Computational Techniques at SBS College of Engineering and Technology, Ferozpur	04-15 July	SS Dhami
4.	AICTE Sponsored Programme on Applications of Electronic Design Automation in Emerging Engineering Fields at Radha Govind Engineering College, Meerut (UP)	04-17 July	Rajesh Mehra Garima Saini
5.	Regional Programme on Building Excellence in TVET Systems Through Accreditation at Melaka, Malaysia	11-20 July	SK Dhameja Hemant Sood
6.	AICTE Sponsored QIP on Intellectual Property Rights at IIT, New Delhi	18-22 July	Sunil Dutt
7.	AICTE Sponsored QIP on Professional Ethics at IIT, Kharagpur	25-31 Aug	Sunil Dutt BC Choudhary
8.	Recent Trends in Signal Processing at Samrat Ashok Technological Institute (SATI), Vidisha (MP)	16-28 Sep	Rajesh Mehra
9.	Online e-learning Training Programme on Climate Change and Disaster Risk at NIDM, New Delhi and in collaboration with World Bank Institute, Washington	17 Oct – 11 Nov	UN Roy
10.	AICTE Sponsored Programme on Planning and Managing Human Resources: Tools and Techniques at IIT Kharagpur	24 Oct – 07 Nov	Rajesh Mehra
11.	CEP Course on Energy Management at IIT Mumbai	21-25 Nov	Sunil D Jassal

Sr. No.	Area and Place of Training	Period	Attended by Shri/Ms
12.	Drought Mitigation and Management at NIDM, New Delhi	28 Nov – 02 Dec	UN Roy
13.	AICTE Sponsored Programme on Introduction to MATLAB and Matrix Imaging Library (MIL) with emphasis on Hands on Practice (WMMIL) at SMVD University, Katra (J&K)	16-29 Dec	BC Choudhary Sunil D Jassal
14.	AICTE Sponsored Programme on TRIZ and Taguchi Methods using Innovation and Optimization at IIT Bombay	19-23 Dec	Garima Saini
15.	AICTE Sponsored Programme on Applications of Advanced Computing Technologies: The Emerging Research Trends at Ambedkar Institute of Communication Technologies and Research, New Delhi	02-14 Jan, 2012	R K Wats Rajesh Mehra Garima Saini
16.	Advanced Tribology, at IIT Delhi	13-17 Feb, 2012	SS Dhami
17.	Technology Enabled Teaching and Learning at IIM Kozhikode	13-17 Feb, 2012	Sunil D Jassal VK Sonthwal
18.	Online e-learning Training Programme on Damage and Reconstruction Needs Assessment	19 Mar – 12 Apr	UN Roy

IN-HOUSE TRAINING PROGRAMMES

1.	MS Excel, Internet, MS Power Point	16-20 May	Neelam Kumari
2.	Training Programme on Institute Programmes and Activities, RTI Act, Office Procedures, Rules and Regulations	06-10 Jun	SL Gupta Karamjit Kaur Neelam Kumari
3.	Rapid Prototyping Machine	27-29 Jul	BS Pabla SS Banwait SS Dhami
4.	Signal Processing with MATLAB at NITTTR, Chandigarh	23-26 Aug	Rajesh Mehra Garima Saini
5.	GSM and 3G Communication at NITTTR Chandigarh	05-09 Sep	Rajesh Mehra
6.	Open Source Tools and Their Use in Making Presentation and Video at NITTTR, Chandigarh	31 Oct – 04 Nov	Himmi Gupta Shimi SL

Sr. No.	Area and Place of Training	Period	Attended by Shri/Ms
7.	Orientation Training Programme for Newly Recruited Faculty of NITTTR, Chandigarh	23-30 Jan	Mala Kalra Poonam Saini Shimi SL Himmi Gupta
8.	PHP/Mysql and Joomla at NITTTR, Chandigarh	08-12 Aug	Maitreyee Dutta C Ramakrishna Shano Solanki Amit Doegar Poonam Saini
9.	Making Your Own Video Presentation	08-12 Aug	SP Bedi Viney Vadhera JL Verma Mala Kalra Himmi Gupta Pardeep Kumar Y Kaushal Shimi SL Surinder Singh S P Bedi



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

CS/11/12
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INDIAN AUDIT AND ACCOUNTS DEPARTMENT
OFFICE OF THE PRINCIPAL DIRECTOR OF AUDIT (CENTRAL),
CHANDIGARH - 160017

1784
8 NOV 2012

क्रमांक / No. : PDA (C)/UT.(V)/SAR NITTTTR/2012-13/878

दिनांक / Dated : 08-11-2012

To

ANNEXURE - IV

**The Director (T),
Government of India,
Ministry of Human Resource Development,
Department of Secondary and Higher Education,
Shastri Bhawan, New Delhi - 110001.**

Subject:- Audit Report on the Accounts of National Institute of Technical Teachers Training and Research, Chandigarh for the year 2011-12

Sir,

I am enclosing a copy of Audit Report (English), on the annual accounts of National Institute of Technical Teachers Training and Research, Chandigarh for the year 2011-12 to be placed before both the houses of Parliament. The date of presentation of this report before both the house of Parliament may please be intimated to this office. Kindly send us five copies of the above report after presentation. Please acknowledge the receipt of this letter.

Yours faithfully,

- sd -
Director

Encls: 1. Audit Report (English) Draft SAR

✓ A copy of Audit Report forwarded to the Director, National Institute of Technical Teacher's Training and Research, Sec 26, Chandigarh for information and necessary action please.

Director 8/11/12

Separate Audit Report of the Comptroller & Auditor General of India on the Accounts of the National Institute of Technical Teachers' Training and Research (NITTTR), Chandigarh for the year ended 31 March 2012.

1 We have audited the attached Balance sheet of National Institute of Technical Teachers' Training and Research, Chandigarh as at 31 March 2012, the Income & Expenditure Account and Receipts & Payment 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 entrusted for a period of five years from 2008-09 to 2012-13. 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 disclosures 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, Income & Expenditure Account and Receipts & Payment Account dealt with by this report have been drawn up in the 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

1. Liabilities

**1.1 Current liabilities and Provisions (Schedule-2)
Provision for Pension Fund**

Provision for liability towards pension on superannuation of employees needs to be made on actuarial basis as per the format prescribed for Central Autonomous Bodies, by the Government of India. The same has not been done. Non-provision of pension fund has resulted in understatement of liabilities as well as overstatement of corpus/ Capital fund.

2. Assets

2.1 Fixed Asset (Schedule-4)

2.1.1 Land: ₹ 18.65 lakh

Above does not include ₹15.68 lakh (including stamp duty ₹1.16 lakh) paid (April 1979) for free hold land measuring 15 Acre in Sector 26 in possession of the Institute. It has resulted in understatement of fixed assets as well as Corpus/ Capital fund by ₹15.68 lakh.

2.1.2 Equipments: ₹ 810.41 lakh

The Institute sold some fixed assets - Equipments for ₹11.15 lakh during the year 2011-12. However, the institute has deducted the sale amount ₹11.15 lakh instead of gross value of equipments sold from the gross block of the fixed assets. In the absence of written down value of assets (equipment) sold, the profit or loss on the sale of fixed assets (equipments) could not be verified in audit.

2.2 Assets under GOI Projects (Schedule 4A): ₹ 45.39 lakh

These assets are created out of Grants for Specific purpose/ projects as such these assets should have been shown separately as utilization under Earmarked/ Endowment Funds as required in Form of Financial Statements for the Central Autonomous Bodies. This has resulted in overstatement assets as well as liabilities (Earmarked/ Endowment Funds) by ₹ 45.39 lakh.

**B. Accounting Policies and Notes on Accounts
Notes on Accounts**

Reference is invited to Note on Accounts at Sr. No. 3 which inter alia states that 'The contractor filed a claim amounting to ₹ 90.71 lakh and the Institute also filed counter claim. The award of the Arbitration case has been announced after a gap of 8 years after completion of hearing. The Institute has moved the court challenging the merit

of the award through Institute Counsel. The effect will be given in the Accounts after the decision is announced by the Court.'

Scrutiny of records however, disclosed that the District Court had dismissed (29-4-2011) the objection and also ordered (29-4-2011) for execution of the award dated 23-6-2008. Thus, the disclosure is deficient to that extent.

Further, the National Buildings Construction Corporation Ltd. being consultant has also requested (18-6-2011) the Institute to pay ₹ 38,41,465/-, so that the award payment to the contractor could be released. As the payment has not been released so far, the same should have been shown as 'claims against the Institute not acknowledged as debts' under the head Contingent Liabilities and Notes on Accounts, as per requirement of the Schedule-25 of the Common Format of Accounts. However, the same has not been done.

C. General

C.1 General

Broadsheet(s) in respect of Provident Fund (₹ 1164.75 lakh) has not been maintained in the format prescribed in the para 6.8 and the closing has also not been done in the manner prescribed in the para 6.9 of Civil Accounts Manual. In the absence of the same, correctness of figures could not be verified in audit.

C.2 Net impact of Audit comments on the Annual Accounts

Net impact of Audit comments on the Annual Accounts of NITTTR for the year ending 31 March 2012 is as under:

- i Asset overstated by ₹ 29.71 lakh.
- ii Capital/ Corpus Fund understated by ₹ 15.68 lakh.
- iii Liabilities overstated by ₹ 45.39 lakh.

D. Grants in aid

Out of the grant in aid of ₹ 26.42 crore (Plan: ₹ 3.80 crore and Non Plan: ₹ 14.20 crore) received during the year (including opening balance of ₹ 8.42 crore (Plan ₹ 2.29 crore and non Plan: ₹6.13 crore)) and ₹3.35 crore (Plan: ₹0.09 crore and non Plan: ₹3.26 crore) generated from internal resources, the Institute could utilize a sum of ₹19.51 crore (Plan: ₹5.39 crore and Non Plan: ₹14.12 crore), leaving a balance of ₹10.26 crore (Plan: ₹0.79 crore and Non Plan: ₹ 9.47 crore) as unutilized grant as on 31 March 2012.

E. Management letter

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

- v) Subject to our observations in the preceding paragraphs, we report that the Balance Sheet, Income & Expenditure Account and Receipt & Payment 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-I 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 31 March 2012; and
- b. In so far as it relates to Income & Expenditure Account of the surplus 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-I

1 Adequacy of Internal Audit System:

The institution has an internal audit wing. However, the internal audit was deficient to the following extent:

- i. Internal audit reports were not generated.
- ii. Internal audit manual had not been prepared by the Institute.
- iii. The quantum of records to be checked by internal audit had not been fixed.
- iv. Audit programmes were also not formulated.

2 Adequacy of Internal Control System:

The internal Control is considered adequate and commensurate with size and activities of the Institute except in respect of following areas which may be strengthened:

- i. Register/ list of title deeds for the landed properties and buildings was not being maintained.
- ii. Security deposits/ fidelity guarantees were not obtained in respect of employees handling valuables such as cash and stocks.
- iii. There was no plan of rotation of duties of employees dealing with cash, stocks and other valuables.
- iv. No Accounting manual had been prepared by the Institute.

3 Physical verification of Fixed Assets/ Inventory:

Physical verification of fixed assets/ Inventory as shown in the Balance Sheet was not available on the records, in the absence of which figures of assets/inventory as shown in the Balance Sheet could not be verified in audit.

4 Regularity in payment of statutory dues:

Institute is regular in depositing undisputed statutory dues with the appropriate authorities.


Sr. Audit Officer

**NATIONAL INSTITUTE OF TECHNICAL TEACHERS TRAINING AND RESEARCH
SECTOR-26, CHANDIGARH**

BALANCE SHEET AS AT 31.3.2012

LIABILITIES	SCHEDULE	CURRENT YEAR	PREVIOUS YEAR
		(RUPEES IN LAKH)	
Corpus/Capital Fund	1	2,173.72	2,022.41
Current Liabilities and Provisions	2	1,389.24	1,271.14
Deposits	3	1,399.12	1,383.64
Total Laibilities		4,962.08	4,677.19
ASSETS			
Fixed Assets - Net Block	4	2,421.71	2,350.65
Assets under GOI Projects	4A	45.39	53.37
Other Assets	5	11.58	10.46
Advances Account	6	36.94	25.81
Provident Fund/NPS etc	7	1,179.33	1,233.21
Cash & Bank Balances	8	1,267.13	1,003.69
Total Assets		4,962.08	4,677.19

**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 31.3.2012**

PARTICULARS	SCHEDULE	CURRENT YEAR		PREVIOUS YEAR	
		PLAN	NON PLAN	PLAN	NON PLAN
		(RUPEES IN LAKH)			
INCOME					
Income from Sales/Service	9	--	--	--	--
Grant received under Revenue Account	10	380.00	1,420.00	216.00	1,009.50
Grant in Transit		--	--	--	739.50
Fee subscription/Sundry Debtors	11	7.36	338.90	6.09	240.08
Total		387.36	1,758.90	222.09	1,989.08
Grant Total Plan/Non Plan		2,146.26			2,211.17
EXPENDITURE					
Eatablishment Expenses	12	103.74	1,040.03	80.08	1,033.60
Other Expenses		84.19	30.88	50.27	30.26
Liabilites & Provisions	13	10.79	529.05	8.59	524.46
Administrative Expenses	14	0.01	52.87	20.23	41.82
Operation & Maintenance		8.01	126.57	--	145.30
Total		206.74	1,779.40	159.17	1,775.44
Grand Total			1,986.14		1,934.61
Balance being surplus carried over			160.12		276.56

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 31.3.2012

LIABILITIES	CURRENT YEAR	PREVIOUS YEAR
	(RUPEES	IN LAKH)
Schedule-1-Corpus/Capital Fund:		
Opening balance at the beginning of the year	1,953.00	1,263.14
Opening balance - Govt. of India projects	69.41	83.06
Grant-in-aid received during the year-main account	--	375.00
Add : Excess of Income over Expenditure Account	161.98	276.56
Add : Prior period adjustments - Salary/Arrear	--	57.73
Add : Prior period adjustments - CPF/GPF	--	1.60
Less :Prior period adjustments - Amortization Charges	--	-5.66
Less :Prior period adjustments - Property Service Charges	--	-28.58
Add : Prior period adjustments - PHD Fee	--	13.21
Net Capital/Corpus fund under GOI Projects	-8.81	-13.65
Total	2,175.58	2,022.41
Schedule-2-Current Liabilities and Provisions		
Sundry Creditors-Securities	--	2.90
Sundry creditors (time barred cheques)	2.30	2.24
Provisions		
Leave Encashment	553.71	510.10
Gratuity	714.70	647.86
Pension	--	4.34
Maintenance Student Centre/Electrical/Building	4.37	4.72
Salaries	76.45	70.90
Dearness Allowance	9.64	8.27
Telephone & Trunkcall	0.12	0.29
Electricity & Water Charges	3.77	2.66
Pension to Retirees	19.27	13.95
New Pension Fund - Employer Share	1.87	--
Property Tax	2.64	2.55
Audit Fee & Legal & Professional Charges	0.40	0.36
Total	1,389.24	1,271.14
Schedule- 3- Deposits		
Recovery & Deductions/Security Deposits etc (As per Annexure - I)	179.28	118.96
Sponsored Projects- Plan	40.51	31.47
Provident Fund- (As per Annexure - II)	1,164.75	1,127.89
New Pension Scheme- As per Annexure - III-(Provisional)	14.58	105.32
Total	1,399.12	1,383.64
Total Laibilities	4,963.94	4,677.19

ASSESTS**Schedule - 4**

Assets Value-Net Assets as per schedule	2,145.03	2,092.15
Advance Account	105.96	87.78
Work In Progress	170.72	170.72
Total	2,421.71	2,350.65

Schedule - 4 A

Fixed Assets as per GOI Balance sheet	45.39	53.37
Total	45.39	53.37
Total Fixed Assets	2,467.10	2,404.02

Schedule-5- Other Assets**Advance Securities**

Security of LPG	0.07	0.07
Security of LPG for PG Hostel	0.45	0.45
Security -SDO Electrical	0.01	0.01
Security of Electrical Meter	0.01	0.01
Security of Water Meter	0.01	0.01
Security of telephone - (EPABX)	0.15	0.15
Security of Meter at Principal's lodge	0.01	0.01
Total	0.71	0.71

Postal Account

Franking Machine-Postage- Opening Balance	0.36	0.96
Received during the year	2.95	1.80
Less consumed during the year	-2.58	-2.40
Total	0.73	0.36

Printing & Stationery Account

Opening Balance	4.05	3.63
Add during the year	5.96	5.48
Less consumed during the year	-5.92	-5.06
Total	4.09	4.05

Consumable Stores

Opening Balance	2.60	2.71
Add during the year	13.41	8.32
Less consumed during the year	-14.23	-8.43
Total	1.78	2.60

Library Journals

Journals (Advance Account)-Opening balance	2.62	2.02
Add during the year	4.14	2.51
Less journals capitalised during the year	-2.49	-1.91
Total	4.27	2.62

Sundry Debtors

Opening Balance	--	--
Add during the year - Rent Mess/Canteen	0.12	0.12
Less written off during the year	-0.12	--
Total	--	0.12

Total Schedule - 5**11.58** **10.46**

Schedule- 6**Advance Account**

Loans & Advances to Staff-Opening Balance	24.76	23.14
Paid during the year	7.95	8.17
Less recovered during the year	-6.80	-6.55
Total	25.91	24.76
Parmanent Imprest		
Opening Balance	0.05	0.06
Add paid during the year	--	--
Less received during the year	--	-0.01
Total	0.05	0.05
TDS-2011-12	2.21	
Advance to Firms/TAX appeal	1.00	1.00
Advance to Firms/TAX - 2011-2012	9.98	--
Total	10.98	1.00
Total Schedule- 6	39.15	25.81

Schedule - 7

Provident Fund -As per Annexure-II	1,164.75	1,127.89
New Pension Scheme- As per Annexure - III-(Provisional)	14.58	105.32
Total	1,179.33	1,233.21

Schedule - 8

Cash & Bank Balance-(with nationalized Banks)

Cash & Bank Balance as per GOI balance sheet	15.21	16.04
Institute Grants Account		
Cash in hand	6.60	1.48
Temporary Imprest	0.38	0.24
Balance at Bank *	16.23	210.13
FDR- Deposits Account	1,202.26	34.00
Intterest Accrued on FDR	26.45	2.30
Draft in transit	--	739.50
Total	1,267.13	1,003.69
Total Assets	4,963.94	4,677.19

Sd/-
Accounts Officer
NITTTTR, Chandigarh

Sd/-
Director
NITTTTR, Chandigarh

NATIONAL INSTITUTE OF TECHNICAL TEACHERS TRAINING AND RESEARCH, CHANDIGARH

FIXED ASSETS AS AT 31.3.2012

FIXED ASSETS- NET BLOCK - SCHEDULE -4

PARTICULARS	Rate %	GROSS BLOCK					DEPRECIATION				NET BLOCK	
		Cost/ecvaluation	Additions	Additions	Deductions	cost/value	As at the	On Additions	On Deduction	Total at	As at the	As at the
		as at beginning	before	after	during the	at the year	beginning	of the year	of the year	the year	current	Previous
		of the year	30.9.2011	30.9.2011	year	end	of the year		end	year end	year end	
Fixed Assets												
Institute Account												
							(RUPEES IN LAKH)					
Land	0	18.90	--	--	--	18.90	--	--	0.25	0.25	18.65	18.90
Buildings- Residential	5	394.43	--	--	--	394.43	292.79	5.08	--	297.87	96.56	101.64
Buildings- Office Block	10	400.79	2.05	3.90	--	406.74	298.16	10.66	--	308.82	97.92	102.63
Buildings- Hostel	5	1,209.72	--	--	--	1,209.72	194.05	50.78	--	244.83	964.89	1,015.67
Equipments	15	1,904.34	10.26	239.57	11.15	2,143.02	1,210.73	121.88	--	1,332.61	810.41	693.61
Computer	60	116.62	0.66	25.81	--	143.09	67.39	37.68	--	105.07	38.02	49.23
Books	100	77.42	0.27	2.14	--	79.83	77.42	2.41	--	79.83	--	--
Technical Journals	100	45.82	--	--	--	48.31	45.82	2.49	--	48.31	--	--
Furniture Fixture & Electrical Installation	10	181.01	4.00	16.76	--	201.77	80.87	11.25	--	92.12	109.65	100.14
Vehicle	15	19.07	--	--	--	19.07	16.93	0.32	--	17.25	1.82	2.14
Continuation Education												
Equipments	15	4.40	--	--	--	4.40	4.14	0.04	--	4.18	0.22	0.26
Sponsored Projects												
Equipments	15	10.53	0.10	--	--	10.63	6.87	0.56	--	7.43	3.20	3.66
Assets under OBC-OSC												
Equipments	15	3.96	--	--	--	3.96	1.00	0.44	--	1.44	2.52	2.96
Furniture	10	1.45	--	--	--	1.45	0.14	0.13	--	0.27	1.18	1.31
Books	100	1.27	--	--	--	1.27	1.27	--	--	1.27	--	--
Total - A		4,389.73	17.34	290.67	11.15	4,686.59	2,297.58	243.73	0.25	2,541.56	2,145.03	2,092.15
Advances Account												
Capital Work in Progress with Chd Admin.												
		30.58	1.49	--	--	32.07	--	--	--	--	32.07	30.58
Expenditure on building-work in progress - New Lab												
		57.20	--	--	--	57.20	--	--	--	--	57.20	57.20
Capital Work in Progress- Road												
		--	--	16.69	--	16.69	--	--	--	--	16.69	--
Expenditure on building-work in progress - OBC												
		63.11	--	--	--	63.11	--	--	--	--	63.11	63.11
Expenditure on building-work in progress - OBC-OSC												
		107.61	--	--	--	107.61	--	--	--	--	107.61	107.61
Total - B		258.50	1.49	16.69	--	276.68	--	--	--	--	276.68	258.50
Grand Total		4,648.23	18.83	307.36	11.15	4,963.27	2,297.58	243.73	0.25	2,541.56	2,421.71	2,350.65

Sd/
Accounts Officer
NITTTR, Chandigarh

Sd/
Director,
NITTTR, Chandigarh

Detail of Lease Hold Land of NITTTR, CHANDIGARH
Details of Amortization up to the Financial Year 2011-2012

Land	Acre (Sq.Yard)	Date of Commencement of Lease	Period of Lease	Cost	Registry Charges	Total	Amount Amortized Per year	Amortized years	Amount to be ammortized	Amount Amortised up to previous year
Sector 42-B, Chandigarh	6057.969	2.3.1988	99	1,428,706.00	47,985.00	1,476,691.00	14,916.00	24	357,986.00	343,070.00
Sector 29, Chandigarh	3622.958	15.6.1988	99	613,375.00	20,670.00	634,045.00	6,404.00	24	153,707.00	147,303.00
Sector 26, Chandigarh	4755.5555	23.10.1984	99	356,667.00	12,315.00	368,982.00	3,727.00	28	104,358.00	100,631.00
	14,436.48			2,398,748.00	80,970.00	2,479,718.00	25,047.00		616,051.00	591,004.00

Sd/-
Accounts Officer,
NITTTR, Chandigarh

Sd/-
Director,
NITTTR, Chandigarh

NATIONAL INSTITUTE OF TECHNICAL TEACHERS TRAINING AND RESEARCH
SECTOR-26, CHANDIGARH
SCHEDULE FORMING PART OF INCOME & EXPENDITURE ACCOUNT FOR THE
YEAR ENDED 31.3.2012

PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
	PLAN	NON PLAN	PLAN	NON PLAN
	(RUPEES		IN	LAKH)
INCOME				
Schedule-9				
Income from sales/service			--	--
Schedule-10-Grants/subsidies				
From Government of India				
Revenue Account	380.00	1,420.00	216.00	1,009.50
Grant in transit		--		739.50
Grant under (OSC)-OBC scheme			--	--
Total	380.00	1,420.00	216.00	1,749.00
RECEIPTS				
Schedule-11				
Internal Resources				
Interest Account				
Interest earned/accrued on S/B Account & FDR	--	98.15	--	20.24
Interest received on advances to staff	--	3.36	--	4.08
Total	--	101.51	--	24.32
Rental Receipts				
Rent from residential Houses	--	3.99	--	3.47
Rent from Hostel	--	29.13	--	36.47
Rent from AICTE	--	0.98	--	0.98
Rent from Mess/ Canteen	--	0.12	--	0.12
Total	--	34.22	--	41.04
Fee Receipts				
Fee from ME Students	--	104.55	--	103.10
Fee under various courses	7.36	57.60	6.09	25.12
Total	7.36	162.15	6.09	128.22
Receipt from other sources				
Institute receipts	--	2.20	--	5.62
Recovery against books	--	-	--	0.01
Receipt from Publication	--	1.71	--	1.17
Receipt from consultancy share	--	16.66	--	20.52
Royalty share	--	0.61	--	1.14
Sale proceeds of Prospects	--	5.67	--	7.27
P-hd Fee	--	3.41	--	--
Penal Interest	--	0.04	--	--
Write off time barred cheques	--	2.90	--	--
Receipt on Sale of Newspaper	--	--	--	0.15
Fee from RTI	--	0.06	--	0.02
Overhead Charges	--	9.25	--	10.15
Receipt from photocopy charges	--	0.37	--	0.45
Total	--	42.88	--	46.50
Total receipts	7.36	340.76	6.09	240.08
Grand Total	387.36	1,760.76	222.09	1,989.08
Total Plan and Non Plan		2,148.12		2,211.17

EXPENDITURE

Schedule -12

Establishment Expenses

Salaries-Pay & Allowances

Faculty	56.05	355.33	45.92	349.52
Technical Non Teaching/C&D Staff	46.12	390.75	32.59	384.87
Bonus	0.31	4.06	0.35	3.94
Dearness allowance	--	9.59	--	13.60
LTC	--	6.70	1.19	12.60
Medical treatment charges	1.26	25.96	--	29.29
Reimbursement of cost of books	--	0.83	0.03	0.72
Institute Share-(CPF)	--	1.50	--	1.46
Pension - Faculty	--	66.25	--	222.90
Pension - C & D Staff	--	104.71	--	--
Pension & Retirement benefit	--	35.74	--	--
Arrear MACP	--	0.78	--	4.80
Children Education Allowance	--	10.55	--	--
New Pension Fund Contribution	--	16.63	--	--
Stipend	--	0.20	--	0.19
Professional Development Allowance	--	3.95	--	--
Leave Encashment for LTC	--	6.50	--	9.71
Total	103.74	1,040.03	80.08	1,033.60

Other Payments

Over Time Allowance	0.10	0.70	0.13	0.56
Travelling Allowance	66.16	8.60	50.14	6.63
Fee & Honorarium	17.93	21.58	--	23.07
Total	84.19	30.88	50.27	30.26

Schedule-13

Liability & Provisions

Depreciations-Net Block (as shedule-4)	--	43.73	--	241.38
Salaries to Staff	9.61	66.84	8.59	62.31
Dearness Allowance	1.18	8.46	--	8.27
Leave Encashment	--	77.64	--	88.17
Gratuity	--	100.68	--	99.80
Maintenance Student Centre/Electrical/Building	--	4.37	--	4.72
Telephone & Trunkcall charges	--	0.12	--	0.29
Property Tax	--	2.64	--	2.55
Electricity & Water charges	--	3.77	--	2.66
Pension to retirees	--	18.93	--	13.95
New Pension Fund - Employer Share	--	1.87	--	--
Audit Fee & Legal /Professional Charges	--	--	--	0.36
Total	10.79	529.05	8.59	524.46

Schedule-14**Administrative Expenses-Contingencies**

Misc. Expenses(Office)	--	3.65	--	1.93
Printing & Stationery	--	5.92	--	5.06
Liveries	--	0.43	--	0.63
Hindi Day	--	0.29	--	--
Independence/Vishkarma Day	--	0.02	--	--
Contingencies various labs(Academic)	--	1423	--	8.43
Advertisement	--	9.74	--	14.44
New Paper & Periodicals	--	0.33	--	0.72
Annual Day expenses	--	1.42	--	1.28
Postage & Telegram	--	2.58	--	2.40
Telephone/Trunk call charges	--	2.96	--	2.60
Entertainment & Contingencies	--	2.22	--	0.84
Reference Books	--	0.04	--	0.05
Purchase of Medicines	--	0.02	--	0.02
Legal & Professional Charges	--	0.51	--	1.75
Library Contingencies	--	0.95	--	0.05
Library Membership	--	-	--	0.17
Ground Rent	--	0.59	--	0.59
Amortization of Lease Hold Land	--	0.25	--	0.25
Printing of Newspaper	--	0.04	--	0.25
Audit Fee	--	2.78	--	0.28
Annual Sports	--	3.78	--	--
Write off Securities		0.02		
Contg. Under (OSC)-OBC Scheme	--	--	20.23	--
Vigilance Day	--	--	--	0.02
Teachers Day	--	0.10	--	
National Education Day	--	--	--	0.06
Total	0.01	52.87	20.23	41.82

Operation & Maintenance

Mtc. Student Centre	--	20.28	--	11.57
Mtc. Electrical	0.56	9.41	--	10.95
Mtc. Electrical Lab.	--	0.31	--	0.33
Mtc Rural Development	--	1.12	--	0.23
Mtc. Media Centre	--	1.61	--	1.11
Mtc. ETV Lab.	0.46	1.01	--	0.97
Mtc. Civil Lab.	--	1.86	--	1.42
Mtc. Phones & Communications	--	0.75	--	0.04
Mtc. Electronics & Communications	0.01	0.94	--	0.48
Mtc. Guest House	--	1.19	--	0.71
Mtc. Furniture	--	2.13	--	1.92
Mtc. Buildings	6.45	40.15	--	42.67
Mtc. Campus	--	0.77	--	0.35
Mtc. Vehicle	--	4.26	--	3.04
Mtc. Curriculum Development Centre	--	--	--	4.68
Mtc Ref. & Air Condition	--	4.50	--	8.68
Electricity & Water Charges	--	27.28	--	26.70
Repair of Machinery	--	0.02	--	--

Mtc. EDIC Lab.	--	0.03	--	--
Mtc. Computer Science Lab.	0.41	0.75	--	1.79
Mtc. Mechanical Engg. Lab	--	0.77	--	1.05
Mtc Education & Educational Lab.	--	2.63	--	0.19
Mtc Sports	--	0.15	--	2.92
Mtc. Internet	--	3.79	--	16.32
Mtc Hostel	--	0.06	--	5.87
Mtc. Library	0.03	-	--	1.04
Mtc Applied Science Lab.	0.09	0.36	--	
Mtc. Electronics Service Centre	-	0.44	--	0.27
Total	8.01	126.57	--	145.30
Grand Total	206.74	1,779.40	159.17	1,775.44
Total Plan and Non Plan		1,986.14		1,934.61
Balance being surplus carried over		161.98		276.56

Sd/-
Accounts Officer
NITTTR, Chandigarh

Sd/-
Director
NITTTR, Chandigarh

**NATIONAL INSTITUTE OF TECHNICAL TEACHERS TRAINING AND RESEARCH
SECTOR-26, CHANDIGARH
RECEIPTS AND PAYMENTS ACCOUNT FOR THE
YEAR ENDED 31.3.2012**

PARTICULARS	CURRENT YEAR		PREVIOUS YEAR	
	PLAN	NON PLAN	PLAN	NON PLAN
RECEIPTS	(RUPEES		IN	LAKH)
Balance at the beginning of year	985.35	--	814.34	--
Grant received during the year	380.00	1,420.00	628.00	1,749.00
Deposits including consultancies	--	464.39	--	499.89
Other Receipts				
Interest Receipts	--	103.81	--	25.18
Rent Receipts	--	34.34	--	40.92
Fee Receipts	7.36	161.57	6.09	128.22
Fee from other sources	--	49.27	--	49.41
Other Receipts	1.40	5.46	2.98	7.62
Sponsored Projects	27.44	--	58.36	--
Total	1,401.55	2,238.84	1,509.77	2,500.24
Grand Total Plan/Non Plan	3,640.39		4,010.01	
PAYMENTS				
Non Recuring	321.29	--	562.89	--
Recurring Payments				
Establishment Expenses	112.33	1,191.49	89.40	1,472.15
Other Expenses	86.64	45.16	57.75	30.58
Administrative Expenses	8.54	46.44	20.23	70.23
Operation & Maintenance	9.81	138.60	1.11	152.24
Spnsored Projects	18.40		62.15	--
Deposits including consultancies		409.77	--	505.93
Cash & Bank Balances	1,251.92	--	985.35	--
Total	1,808.93	1,831.46	1,778.88	2,231.13
Grand Total	3,640.39		4,010.01	

Sd/-
Accounts Officer
NITTTR, Chandigarh

Sd/-
Director
NITTTR, Chandigarh

**NATIONAL INSTITUTE OF TECHNICAL TEACHERS TRAINING AND RESEARCH
SECTOR-26, CHANDIGARH
SCHEDULE FORMING PART OF RECEIPTS AND PAYMENTS ACCOUNT FOR THE
YEAR ENDED 31.3.2012**

A RECEIPTS	CURRENT YEAR (RUPEES IN LAKH)		PREVIOUS YEAR (RUPEES IN LAKH)	
I Balance at the beginning of the year				
Cash in hand	1.48		1.81	
Temporary Imprest	0.24		0.81	
Balance in Bank	210.13		423.34	
Deposit Account	34.00		388.38	
Draft in Transit	739.50		--	
Total Cash	985.35		814.34	
	PLAN	NON PLAN	PLAN	NON PLAN
II Grants received from Govt. of India				
On Capital Account-Creation of Capital Assets	--	--	412.00	--
On Revenue Account	380.00	1,420.00	216.00	1,009.50
Grant in transit	--	--	--	739.50
Sub Total	380.00	1,420.00	628.00	1,749.00
Grant under (OSC)-OBC scheme				
Non Recurring	--	--	--	--
Recurring	--	--	--	--
Sub Total	--	--	--	--
Total Grants	380.00	1,420.00	628.00	1,749.00
III Deposits (including consultancies) (as annexure-I)	--	464.39	--	499.89
IV Internal Resources				
a Interest Account				
Interest earned on S/B Account	--	100.45	--	21.10
Interest received on advances to staff	--	3.36	--	4.08
Total	--	103.81	--	25.18
b Rental Receipts				
Rent from residential Houses	--	3.99	--	3.47
Rent from Hostel	--	29.13	--	36.47
Rent from AICTE	--	0.98	--	0.98
Rent from Mess/Canteen	--	0.24	--	--
Total	--	34.34	--	40.92
c Fee Receipts				
Fee from ME Students	--	103.97	--	103.10
Fee under various courses	7.36	57.60	6.09	25.12
Total	7.36	61.57	6.09	128.22

d Receipt from other sources				
Institute Receipts		2.20	--	5.62
Recovery against books		--	--	0.01
Receipt from Publication		1.71	--	1.17
Sale of Newspaper		--	--	0.15
Sale proceeds of fixed assts		11.15	--	2.91
Receipt from consultancy share		14.80	--	20.52
Royalty share		0.61	--	1.14
Sale proceeds of Prospects		5.67	--	7.27
Ph-D Fee		3.41	--	--
Penal Interest & Library Books		0.04		
Overhead charges		9.25	--	10.15
RTI Fee		0.06	--	0.02
Photocopy charges		0.37	--	0.45
Total		49.27	--	49.41
e Other Receipts				
Recovery of Loans & Advances	1.40	5.40	2.98	3.57
Time barred cheques	--	0.06	--	--
Parmanent Imprest	--	--	--	0.01
Pension & Leave salary contribution	--	--	--	4.04
Total	1.40	5.46	2.98	7.62
Total Receipts	8.76	354.45	9.07	251.35
V SPONSORED PROJECTS				
6.18-me	0.34	--	0.09	--
AICTE QIP Poly	--	--	38.46	--
IT-Bionery Project	9.80	--	6.30	--
DST NIMAT	0.01	--	1.22	--
AICT QIP Student (SC/ST) Students	1.50	--	--	--
AICT Summer School	8.00	--	--	--
Eco-Water Literacy (Sc.& Tech)-R.D.	5.00			
AICTE Sponsored Students	2.79			
GATE under AICTE QIP scheme	--	--	10.12	--
1.2.207-SIRD Rural Development	--	--	2.17	--
Total	27.44	--	58.36	--
Grand Total	1,401.55	2,238.84	1,509.77	2,500.24
Total Plan and Non Plan	3,640.39		4,010.01	

B PAYMENTS	CURRENT YEAR		PREVIOUS YEAR	
	Plan	Non Plan	Plan	Non Plan
I Non Recurring				
Renovation of buildings	5.95	--	4.69	--
Advance renovation with CPWD (8 works)	1.49	--	57.20	--
Equipment purchased during the year	256.94	--	282.60	--
Advance equipment account-adjusted	--	--	-0.50	--
Re-surfacing of Roads	16.69	--		
Software for Library	19.36			
Equipment - Sponsored Project	0.10			
Renovation of Electrical	1.82	--		
Furniture purchased during the year	18.94	--	45.04	--
Expenditure under OSC-OBC(Recg/NonRecg)	--	--	173.86	--
Total	321.29		562.89	--
II RECURRING				
a Establishment expenses				
Salaries-Pay & Allowances to:				
Faculty	64.64	411.38	49.32	392.04
Technical Non Teaching/C&D Staff	46.12	390.75	36.11	401.27
Arrear 6th pay commission	--	--	--	114.25
Arrear DA	--	17.86	--	
Bonus	0.31	4.06	0.35	3.94
Dearness allowance	--	--	2.40	22.03
LTC	--	6.70	1.19	12.60
Medical treatment charges	1.26	25.96	--	29.29
Remibursement of cost of books	--	0.83	0.03	0.72
Institute Share-(CPF)	--	1.50	--	1.46
Pension - Faculty	--	80.20	--	144.75
Pension - C & D	--	104.71	--	62.62
Pension & Retirement benefits to retirees	--	35.74	--	16.08
Gratuity	--	33.84	--	51.48
Stipend	--	--	--	0.19
Arrears of Pension	--	--	--	1.25
Leave encashment-for LTC	--	6.50	--	9.71
Leave encashment	--	34.03	--	32.23
Arrear 60% to Faculty	--	--	--	171.32
Leave Salary & Pension Contribution		4.00		
New Pension Fund		16.63		
Professional Development Allowance		3.95		
Tution Fee		10.55		
Festival	--	1.52	--	0.12
Arrear MACP	--	0.78	--	4.80
Total	112.33	1,191.49	89.40	1,472.15
b Other Payments				
Over time allowance	0.10	0.70	0.13	0.56
Library Books	2.06	0.35	4.97	0.32
Library Journals	0.39	3.75	2.51	--
Income Tax	--	9.98		
TA including STC	66.16	8.60	50.14	6.63
Stipend	--	0.20	--	--
Fee & Honorarium	17.93	21.58	--	23.07
Total	86.64	45.16	57.75	30.58

c Administrative Expenses

Office Expenses	--	--	--	1.93
Property Tax	--	2.55	--	28.58
Printing & Stationery	2.58	3.38	--	5.48
Liveries	--	0.43	--	0.63
Hindi Day	--	0.29	--	
Indp./Vishkarma day	--	0.02	--	
Contingencies varius labs.(Academic)	5.95	7.46	--	8.32
Advertisement	--	9.74	--	14.44
Teachers Day	--	0.10	--	
Annual Sports	--	3.78	--	
Vigilance Day	0.01	--	--	0.02
National Education Day	--	--	--	0.06
News Paper & Peridocals	--	0.33	--	0.72
Annual Day celebrations	--	1.42	--	1.28
Postage & Telegramme	--	2.95	--	1.80
Telephone Trunkcall charges	--	3.25	--	2.77
Entertainment & Contingencies	--	2.22	--	0.84
Reference Books	--	0.04	--	0.05
Purchase of Medicines	--	--	--	0.02
Legal /Professional charges	--	0.87	-	1.95
Library Contingencies	--	0.95	--	0.05
Ground Rent	--	0.59	--	0.59
Printing of Publication	--	0.04	--	--
Audit Fee	--	2.38	--	0.28
Library Membership	--	--	--	0.17
office Contingency	--	3.65	--	
Contg. Under (OSC)-OBC Scheme	--	--	20.23	
Printing of News Paper	--	--	--	0.25
Total	8.54	46.44	20.23	70.23

d Operation & Maintenance

Mtc Student centre	--	21.79	--	11.57
Mtc Electrical	0.56	9.41	--	10.95
Mtc Electrical lab	--	0.31	--	0.33
Mtc Rural Development	--	1.12	--	0.23
Mtc Media	--	1.61	--	1.11
Mtc ETV Lab	0.46	1.01	--	0.97
Mtc Civil Lab	--	1.86	--	1.42
Mtc Phones & Communications	--	0.75	--	0.04
Mtc. Electronics & Communicatins	0.01	--	--	0.48
Mtc Guest House	--	1.19	--	0.71
Mtc Furniture	--	2.13	--	1.92
Mtc Buildings	6.45	42.65	--	42.67
Mtc Campus	--	0.77	--	0.35
Mtc Vehicle	--	4.26	--	3.04
Mtc Curriculum Development Centre	--	--	--	4.68
Mtc Ref. & air conditioning lab	--	5.21	--	8.68
Electricity & Water Charges	--	29.94	--	26.70
Rapair of Machinery	--	0.02	--	
Mtc EDIC Lab	--	0.03	--	
Mtc Electronics Service Centre	--	--	--	0.27
Mtc Hostel New Block	--	0.06	--	5.87
	0.41	0.75	--	1.79

Mtc Computer Sc. Lab.				
Mtc Mechanical Engg Lab	--	0.77	--	1.05
Mtc Education & Educational Lab	--	2.63	--	0.19
Mtc. Eltx & Comm. Engg.		0.94		
Mtc Applied Sc. Lab	0.09	0.36	--	
Loans & Advances to staff	1.80	4.63	1.11	6.94
Mtc ESC		0.44		
Mtc Sports	--	0.15	--	2.92
Purchase of Medicines		0.02		
Internet Conneivity	--	3.79	--	16.32
Mtc Library	0.03	--	--	1.04
Total	9.81	138.60	1.11	152.24
Total Payments	538.61	1,421.69	731.38	1,725.20
e Sponsored Projects				
NCP-AICTE	0.74	--	5.52	--
Development of Infratructure - ETV	0.58	--		--
3.2.6 Viklangta Se Takkar	--	--	0.03	--
IT Bionery- AICTE Projects-RD	7.13	--	4.76	
Eco-Water literacy- RD	2.21	--	2.17	--
AICTE QIP Poly	5.33	-	34.33	--
National Conference -EDIC-AICTE	--	--	0.50	--
6.17-ME	--	--	0.45	--
Estt of Edusat-ETV	--	--	0.85	--
1.2.224-SIRD-Assam-RD	--	--	0.72	--
1.2.221-SIRD Guwahati -RD	--	--	1.09	--
1.2.207-SIRD Assam-RD	--	--	4.42	--
GATE -AICTE Project	2.16	--	7.23	--
5.27- ETV	--	--	0.08	--
Spac 5.29 Education	0.25	--	--	--
Total	18.40	--	62.15	--
f Deposits (including consultancies) - Annex-1	--	409.77	--	505.93
Cash Balance				
Cash in hand	6.60		1.48	
Temporary Imprest	0.38		0.24	
Bank Balance	16.23		210.13	
Fixed Deposits	1,202.26		34.00	--
Intterest Accrued on FDR	26.45			
Draft in transit	--		739.50	
Total Cash	1,251.92		985.35	--
Total	1,808.93	1,831.46	1,778.88	2,231.13
Total Plan and Non Plan		3,640.39		4,010.01

Sd/-
Accounts Officer
NITTTTR, Chandigarh

Sd/-
Director
NITTTTR, Chandigarh

**NATIONAL INSTITUTE OF TECHNICAL TEACHERS TRAINING AND RESEARCH
CHANDIGARH**

**BALANCE SHEET FOR THE PROJECTS SPONSORED BY THE GOVERNMENT
OF INDIA- MHRD, NEW DELHI AS AT 31.3.2012**

PARTICULARS	CURRENT YEAR	PREVIOUS YEAR
	RUPEES	IN LAKH
LIABILITIES		
Capital/Corpus Fund	69.41	83.06
Less excess of expenditure over income	-8.81	-13.65
Grant received during the year	--	--
TOTAL LIABILITIES	60.60	69.41
ASSETS		
Assets created under the Projects	45.39	53.37
Cash & Bank Balance	0.61	0.42
Deposits (including interest accrued)	14.60	15.62
TOTAL ASSETS	60.60	69.41

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 31.3.2012
FOR THE PROJECTS SPONSORED BY THE MHRD, GOVT OF INDIA.**

INCOME	CURRENT YEAR	PREVIOUS YEAR
	(RUPEES IN LAKH)	
Grant/subsidies From Government of India	--	--
Interest receipts	1.15	3.61
Total	1.15	3.61
 EXPENDITURE		
Establishment Expenses	0.84	1.47
Contingencies /Consumables	0.36	5.68
T.A.	0.72	0.65
Honorarium	0.06	0.07
Depreciation	7.98	9.39
Total	9.96	17.26
Balance being deficit carried over	-8.81	-13.65

Sd/-
Accounts Officer
NITTTR, Chandigarh

Sd/-
Director,
NITTTR, Chandigarh

**NATIONAL INSTITUTE OF TECHNICAL TEACHERS TRAINING AND RESEARCH
CHANDIGARH**

**RECEIPTS AND PAYMENTS ACCOUNT FOR THE YEAR ENDED 31.3.2012
FOR THE PROJECTS SPONSORED BY GOVT. OF INDIA, MHRD.**

RECEIPTS	CURRENT YEAR	PREVIOUS YEAR
	RUPEES IN LAKH	
Opening Balance	15.42	20.30
Grants received during the year	--	--
Interest receipt	1.15	2.99
Total Receipts	16.57	23.29
PAYMENTS		
<u>Non Recurring</u>		
Equipments	--	--
<u>Recurring</u>		
Establishment expenses	0.84	1.47
Contingencies/Consumables	0.36	5.68
T.A.	0.72	0.65
Honorarium	0.06	0.07
Project unspent balance refund to GOI	--	--
Bank charges-adjustable	--	--
Total	1.98	7.87
Cash Balance	--	--
Deposits (including interest accrued)	13.98	15.00
Bank Balance	0.61	0.42
Total payments	16.57	23.29

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

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

NATIONAL INSTITUTE OF TECHNICAL TEACHERS TRAINING AND RESEARCH, CHANDIGARH

FIXED ASSETS UNDER GOI PROJECTS AS AT 31.3.2012

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

(RUPEES IN LAKH)											
PARTICULARS	Rate %	GROSS BLOCK					DEPRECIATION			NET BLOCK	
		Cost/ecvaluation as at beginning of the year	Additions before 30.9.2011	Additions after 30.9.2011	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											
Equipments	15	164.49	--	--	--	164.49	111.58	7.94	119.52	44.97	52.91
Furniture	10	0.99	--	--	--	0.99	0.53	0.05	0.58	0.41	0.46
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	112.39	7.98	120.37	45.39	53.37

Sd/-
Accounts Officer
NITTTTR, Chandigarh

Sd/-
Director
NITTTTR, 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 its letter No. F-1-1/2002- TS-IV dated 15th March, 2002, issued by the Joint Secretary & Financial Adviser vide his DO No. 1703/JS (HRD)/2/2002 dated 18th February, 2002.
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.
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 and Plan-(Non-Recurring)-Creation of Capital Assets, 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. as per Institute's annual budget approved by the Board of Governors.
 - (i) The funds, if remained unutilized at the end of the financial year, are carried over to the next 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 Project.
6. 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.

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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 Goods including equipments, furniture etc. valuing Rs. 48.91 lakh were identified as obsolete/ unserviceable during the year 2010-11. Process for disposal and the sale proceeds shall be reported shortly. The Goods including equipments, furniture etc. valuing Rs. 106.15 lakh are identified as obsolete/unserviceable during the physical verification as at 31.3.2012.
3. The construction work relating to Administrative Block and the Hostel Block was allotted to Shri Vijay Kumar Garg & Company. Due to certain irregularities on the part of the contractor, the contract was terminated. The contractor filed a claim amounting to Rs. 90.71 lakh and the Institute also filed counter claim. The award of the Arbitration case has been announced after a gap of 08 years after completion of hearing. The Institute has moved the court challenging the merit of the award through Institute Counsel. The effect will be given in the Accounts after the decision is announced by the Court.

(ii) An amount of Rs. 36.35 lakh (including interest earned from time to time) towards security from the contractor has been withheld.
4. Balance Sheet for the Project sponsored by Government of India, MHRD has been drawn separately and is attached with the Balance sheet of main Account.
5. Receipt of Rs. 2.79 lakh and 5.00 lakh received from other agencies during March 2012, have been added in the balance sheet for the year 2011-12 on the basis of information received Bank in April, 2012 and debit towards Income Tax Rs. 9.98 lakh withdrawn by Income Tax Department has also been given effect in the Balance Sheet.
6. Balance Sheet for GPF,CPF and New Pension Scheme are prepared separately and attached.
7. This is to certify that there is an unspent balance of Rs. 1267.13 lakh including FDRs worth Rs. 1202.26 lakh (under GOI Projects Rs. 15.21 lakh and Grant under main account Rs. 1251.92 lakh) as on 31.3.2012.
8. Institute is in possession of land measuring 18.863 acres out of which 15.883 acres is held as free hold.
9. Amortization of lease premium on the basis of period of lease has been charged as suggested in Audit

contd...

Building Account

1. Building advance of Rs. 10.69 lakh represents the amount deposited with Chandigarh Administration for construction of Staff Quarters. 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 UT, Administration since 1995-96.
2. PUDA has filed a civil suit for recovery of Rs. 85.00 lakh against the Institute. No provision as liability has been made in the Accounts as it is a contingent liability and provision shall be made as per award/decreed to be decided by the Arbitrator. However, The Institute has also filed a counter claim worth Rs. 17.00 lakh against PUDA.

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Details of Deposits as on 31.3.2012

A Consultancy Project		Opening Bal.	Receipt	Paid	Net Balance
1	5.5 Swift Analysis QIP Media	68,937.00	--	--	68,937.00
2	5.14 Civil Consultancy	--	7,511,332.00	3,424,046.00	4,087,286.00
3	5.17 Hindi Consultancy	13,446.00	--	13,446.00	--
4	5.5 Consultancy Media	68,938.00	--	--	68,938.00
5	IMCO Consultancy SPIC	189,799.00	--	--	189,799.00
6	Study Visit Consultancy	96,621.00	--	--	96,621.00
7	World Bank Project-Consultancy	30,000.00	--	--	30,000.00
8	1.3.3. Civil Consultancy	29,918.00	--	--	29,918.00
9	Hindi Sliet	--	33,090.00	28,500.00	4,590.00
Total		497,659.00	7,544,422.00	3,465,992.00	4,576,089.00
B Other Deposit					
1	Alumni Association	29,500.00	35,000.00	--	64,500.00
2	Distribution Fund	1,030,455.83	706,594.00	999,950.00	737,099.83
3	Earnest Money	1,934,964.86	2,196,022.00	903,436.00	3,227,550.86
4	Examination Fee	412,639.00	190,340.00	60,738.00	542,241.00
5	Income Tax Firms	--	243,333.00	243,333.00	--
6	Misc Deposit Auditorium	213,371.00	84,900.00	3,600.00	294,671.00
7	Royalty to Authors	309,109.88	384,898.27	363,984.27	330,023.88
8	Service Tax 5.14	618.00	958,172.00	958,790.00	--
9	Staff Welfare Fund	297,842.00	222,089.00	337,842.00	182,089.00
Total		4,228,500.57	5,021,348.27	3,871,673.27	5,378,175.57
C Recovery and Deductions					
1	CTD	--	459,300.00	459,300.00	--
2	Farewell Faculty	--	10,360.00	10,360.00	--
3	GPF	--	18,226,714.00	18,226,714.00	--
4	Group Insurance	(1,400.00)	458,518.00	457,118.00	--
5	Income Tax Staff	--	8,732,038.00	8,732,038.00	--
6	LIC-NP	--	885,239.00	885,239.00	--
7	New Pension Fund Subscription	--	4,266,936.00	4,266,936.00	--
8	Welfare Faculty C and D	--	88,590.00	88,590.00	--
Total		(1,400.00)	33,127,695.00	33,126,295.00	--

	Opening balance	Received	Paid	Balance
D Security of firms				
1 Library Security		1,000.00	1,000.00	--
2 Retention Money of Vijay Garg	95,875.00	--	--	95,875.00
3 Sec. of Anil Kumar	3,551.00	--	9,592.00	3,959.00
4 Sec. of Anil Malhotra	1,031.00	--	--	1,031.00
5 Sec. of BD Kataria	500.00	--	--	500.00
6 Sec. of Binder	2,000.00	--	--	2,000.00
7 Sec. of Canteen	5,000.00	--	--	5,000.00
8 Sec. of Daksh Detective	12,507.00	120,648.00	--	133,155.00
9 Sec. of Deepak Mittal	(780.00)	780.00	--	--
10 Sec. of Glass Palace	2,775.00	--	2,775.00	--
11 Sec. of Golden Eagle	97,769.00	--	56,337.00	41,432.00
12 Sec. of Gurdeep Singh	58,423.00	--	--	58,423.00
13 Sec. of Harbhajan Singh	505.00	--	--	505.00
14 Sec. of Hardeep Singh	18,429.00	--	--	18,429.00
15 Sec. of Harjeet Singh.	4,000.00	--	--	4,000.00
16 Sec. of Kanaj Nath	5,000.00	--	--	5,000.00
17 Sec. of Kanwar Enterprises	10,799.00	--	--	10,799.00
18 Sec. of Kings Furnishers	23,152.00	--	23,152.00	--
19 Sec. of Krishan Kumar Washerman	2,000.00	--	--	2,000.00
20 Sec. of Krishna Stationers	4,700.00	--	--	4,700.00
21 Sec. of Mann Electric Works	10,000.00	--	--	10,000.00
22 Sec. of ME Students.	3,126,201.00	995,000.00	470,000.00	3,651,201.00
23 Sec. of national Small Industries	15,472.00	--	--	15,472.00
24 Sec. of Ph.D Students.	197,066.00	--	--	197,066.00
25 Sec. of PK Electricals	(1,100.00)	1,100.00	--	--
26 Sec. of Project Associates Sec. of Punj Security & House	15,021.00	3,500.00	3,500.00	15,021.00
27 Keeping	25,482.00	--	--	25,482.00
28 Sec. of Sanchi Security Company	3,383.00	--	--	3,383.00
29 Sec. of Sheltra Consultants.	731.00	--	--	731.00
30 Sec. of Satish Aggarwal	13,770.00	--	--	13,770.00
31 Sec. of Sukhwinder Singh	4,329.00	--	4,329.00	--
32 Sec. of Vijai Garg	3,399,907.72	236,041.00	--	3,635,948.72
33 Sec. of Nand Kishore	--	7,270.00	--	7,270.00
34 Service tax Examination fee	3,926.00	--	--	3,926.00
35 Sec of Kamaldeep verma	--	8,462.00	--	8,462.00
Total	7,171,424.72	1,373,801.00	570,685.00	7,974,540.72

ABSTRACT

1 Total -A	497,659.00	7,544,422.00	3,465,992.00	4,576,089.00
2 Total -B	4,228,500.57	5,021,348.27	3,871,673.27	5,378,175.57
3 Total -C	(1,400.00)	33,127,695.00	33,126,295.00	--
4 Total -D	7,171,424.72	1,373,801.00	570,685.00	7,974,540.72
Total	11,896,184.29	47,067,266.27	41,034,645.27	17,928,805.29
	118.96	470.67	410.35	179.28

LOANS & ADVANCES - FINANCIAL YEAR 2011-2012

Non Plan	O/B	Paid	Received	Balance
Building	12.07	--	(2.94)	9.13
Car	1.59	3.60	(0.56)	4.63
Scooter	4.92	0.48	(1.90)	3.50
Computer	0.73	0.55	--	1.28
Total	19.31	4.63	(5.40)	18.54
Plan	O/B	Paid	Received	Balance
Building	--	--	--	--
Car	1.72	1.80	(0.34)	3.18
Scooter	0.26	--	(0.26)	--
Cycle	--	--	--	--
Computer	3.35	--	(0.68)	2.67
Total	5.33	1.80	(1.28)	5.85
Festival	0.12	1.52	(0.12)	1.52
	0.12	1.52	(0.12)	1.52
G. Total	24.76	7.95	(6.80)	25.91

**NATIONAL INSTITUTE OF TECHNICAL TEACHERS TRAINING AND RESEARCH,
SECTOR-26, CHANDIGARH
BALANCE SHEET GPF/CPF AS AT 31.3.2012**

LIABILITIES		ASSETS	
			(Rupees in lakh)
GPF as per ledger	829.38	FDRs	1,022.08
CPF as per ledger	140.69	Saving Bank Account	35.47
Dead Account	0.06	Sundry Debtors	1.01
Institute contributions	102.17	Interest accrued on FDR up to 31.3.2012	106.19
Excess of Interest	92.45		
Total	1,164.75		1,164.75

Sd/-
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INTEREST ACCOUNT - GPF/CPF AS AT 31.3.2012

(Rupees in lakh)

Opening Balance		92.25
Interest allowed by Bank during the year		49.51
Interest accrued during the year		106.19
Less Interest allowed to the subscriber during the year		-82.98
Less interest accrued on FDR during previous year		-58.70
Less Prior Period adjustment		-13.82
Interest Accured on ICICI Bank	(16.80)	
TDS	(2.15)	
Term Loan - due to less intt. Shown	5.00	
Prev. interest account balance less shown	0.13	
TOTAL		92.45

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CASH BOOK ACCOUNT GPF/CPF AS AT 31.3.2012

(Rupees in lakh)

Opening Balance as on 1.4.2011		1,069.18
Subscription during the year		
GPF as per ledger	180.40	
CPF as per ledger	1.87	
Instt. Contribution	<u>1.50</u>	183.77
Add : Intt. Allowed by Bank		49.51
Less :-		
GPF	172.77	
CPF	46.48	
Institute share	<u>25.66</u>	244.91
Total		<u>1,057.55</u>

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CPF Balance sheet for the year ended 31.3.2012

A/c No.	C P F							Employeer Share						
	Name	OB	Adjustment	Contb	Int	Advanes	Total	OB	Adjustment	Share	Int	W/d		Total
310	OS Khanna	47,132.00		85,400.00	7,678.00	--	140,210.00	1,098,916.00		74,364.00	87,913.00	--	1,261,193.00	
338	RK Goyal	657,591.00		--	51,563.00	111,069.00	598,085.00	350,859.00		--	26,425.00	109,098.00	268,186.00	218196
339	KS Rana	5,914.00		--	--	5,914.00	--	235,832.00			17,835.00	69,920.00	183,747.00	139840
348	Suresh gupta	1,374,839.00		--	109,383.00	157,547.00	1,326,675.00	553,496.00			42,049.00	155,243.00	440,302.00	310486
409	KM Rastogi	2,112,173.00		--	165,004.00	1,405,774.00	871,403.00	1,015,047.00			76,795.00	220,439.00	871,403.00	440878
414	S chatterjee	1,599,894.00		--	126,428.00	223,724.00	1,502,598.00	974,128.00			75,139.00	220,439.00	828,828.00	440878
415	J S Saini	1,390,255.00		--	56,871.00	1,073,724.00	373,402.00	960,118.00			73,990.00	220,439.00	813,669.00	440878
417	SP Bedi	737,112.00		--	55,866.00	214,969.00	578,009.00	811,294.00			61,972.00	211,834.00	661,432.00	423668
422	A K Duggal	1,138,722.00		--	89,045.00	203,337.00	1,024,430.00	776,199.00			59,338.00	200,466.00	635,071.00	400932
423	Man Mohan singh	274,089.00		--	19,296.00	149,371.00	144,014.00	589,072.00			45,141.00	147,130.00	487,083.00	294260
432	PK Tulsi	1,819,173.00		--	144,534.00	217,859.00	1,745,848.00	824,808.00			63,019.00	214,649.00	673,178.00	429298
434	BS Pabla	1,259,062.00	8,000.00	--	99,123.00	231,328.00	1,134,857.00	810,181.00			61,758.00	217,532.00	654,407.00	435064
435	AB Gupta	1,680,141.00		102,000.00	142,370.00	--	1,924,511.00	812,743.00		75,780.00	65,019.00	--	953,542.00	0
439	SC Sharma	(169,000.00)	169,000.00				--				--		--	0
440	Surinder Singh	816,525.00		--	65,131.00	85,851.00	795,805.00	283,026.00		--	21,395.00	84,349.00	220,072.00	168698
441	DD Sharma	561,119.00		--	41,320.00	220,346.00	382,093.00	808,371.00		--	61,618.00	217,136.00	652,853.00	434272
442	Lini Methew	1,248,295.00		--	99,242.00	146,480.00	1,201,057.00	435,959.00		--	32,646.00	144,302.00	324,303.00	288604
	AS Juneja	8,990.00		--	--	--	8,990.00	--		--	--	--	--	0
														0
446	Bakshish Singh	390,233.00		--	29,123.00	135,157.00	284,199.00	391,559.00		--	29,246.00	133,105.00	287,700.00	266210
447	Navin sharma	8,932.00		--	--	--	8,932.00	--		--	--	--	--	
	Rajiv Kapoor	23,885.00		--	--	--	23,885.00	--		--	--	--	--	
														--
														--
		16,985,076.00	177,000.00	187,400.00	1,301,977.00	4,582,450.00	14,069,003.00	11,731,608.00		150,144.00	901,298.00	2,566,081.00	10,216,969.00	
	Prior period - Adjustment	--	--	--	--	--	--	(1,204,721.00)	1,204,721.00	--	--	--	--	
	adjustment	16,985,076.00	177,000.00	187,400.00	1,301,977.00	4,582,450.00	14,069,003.00	10,526,887.00	1,204,721.00	150,144.00	901,298.00	2,566,081.00	10,216,969.00	
408	N Rajamony	(34,382.00)		--	--	--	(34,382.00)	--		--	--	--	--	
339	KS Rana	--	--	--	(1,028.00)	65,287.00	(66,315.00)							
		(34,382.00)	--	--	(1,028.00)	65,287.00	(100,697.00)	--	--	--	--	--	--	
														5132162
														969130

New Pension Scheme for the year ended 31.3.2012

Employee Share							Employer Share							Closing Balance
Name	OB	Balance trf upto 31.3.2009	Diff. of Intt. Balnce upto 31.3.2009	Contb	Int	Total	OB	Balance trf upto 31.3.2009	Share	Diff. of Intt. Balnce upto 31.3.2009	Int	W/d	Total	
S S Pattniak	560,874.50	--	--	134,636.00	40,568.00	736,078.50	560,874.50	--	134,636.00	--	40,568.00	1,293,916.00	(557,837.50)	178,241.00
S S Dhani	425,385.00	--	--	97,291.00	30,845.50	553,521.50	425,385.00	--	97,291.00	--	30,845.50	997,398.00	(443,876.50)	109,645.00
P S Rao	233,045.00	--	--	52,787.00	15,317.00	301,149.00	233,045.00	--	52,787.00	--	15,317.00	545,304.00	(244,155.00)	56,994.00
Swapna Devi	408,759.50	--	--	97,291.00	27,254.00	533,304.50	408,759.50	--	97,291.00	--	27,254.00	964,392.00	(431,087.50)	102,217.00
Ritula Thakur	184,061.50	--	--	48,205.00	12,387.00	244,653.50	184,061.50	--	48,205.00	--	12,387.00	440,762.00	(196,108.50)	48,545.00
Amit Goyal	183,122.50	--	--	48,205.00	12,330.00	243,657.50	183,122.50	--	48,205.00	--	12,330.00	438,886.00	(195,228.50)	48,429.00
Gaima Saini	170,745.50	--	--	47,425.00	11,561.50	229,732.00	170,745.50	--	47,425.00	--	11,561.50	412,962.00	(183,230.00)	46,502.00
Deepak Parsad	38,877.00	--	--	15,139.00	2,745.00	56,761.00	38,877.00	--	15,139.00	--	2,745.00	100,566.00	(43,805.00)	12,956.00
Pardeep Kumar	--	--	--	70,674.00	3,152.50	73,826.50	--	--	70,674.00	--	3,152.50	8,250.00	65,576.50	139,403.00
Tejwant Singh	--	--	--	32,757.00	1,563.00	34,320.00	--	--	32,757.00	--	1,563.00	2,594.00	31,726.00	66,046.00
Jagan Nath	--	--	--	33,739.00	1,639.50	35,378.50	--	--	33,739.00	--	1,639.50	2,594.00	32,784.50	68,163.00
Amrendersharan	--	--	--	58,548.00	701.50	59,249.50	--	--	58,548.00	--	701.50	6,836.00	52,413.50	111,663.00
Shimi S L	--	--	--	13,652.00	220.00	13,872.00	--	--	13,652.00	--	220.00	6,826.00	7,046.00	20,918.00
Mala Kalra	--	--	--	13,652.00	220.00	13,872.00	--	--	13,652.00	--	220.00	6,826.00	7,046.00	20,918.00
Himmi Gupta	--	--	--	13,652.00	220.00	13,872.00	--	--	13,652.00	--	220.00	6,826.00	7,046.00	20,918.00
Poonam Saini	--	--	--	13,652.00	220.00	13,872.00	--	--	13,652.00	--	220.00	6,826.00	7,046.00	20,918.00
Kanika Sharma	236,220.50	--	--	49,460.00	20,917.00	306,597.50	236,220.50	--	49,460.00	--	20,917.00	6,826.00	299,771.50	606,369.00
PK Tulsi	205,290.50	214,649.00	39,461.00	121,679.00	33,467.00	614,546.50	205,290.50	214,649.00	121,679.00	39,461.00	33,467.00	1,100,282.00	(485,735.50)	128,811.00
Suresh Gupta	168,865.00	155,243.00	28,520.00	100,218.00	25,791.00	478,637.00	168,865.00	155,243.00	100,218.00	28,520.00	25,791.00	854,730.00	(376,093.00)	102,544.00
KM Rastogi	322,133.00	220,439.00	40,511.00	124,687.00	41,571.00	749,341.00	322,133.00	220,439.00	124,687.00	40,511.00	41,571.00	1,394,460.00	(645,119.00)	104,222.00
S chatterjee	210,360.00	220,439.00	40,512.00	124,687.00	33,331.00	629,329.00	210,360.00	220,439.00	124,687.00	40,512.00	33,331.00	1,128,594.00	(499,265.00)	130,064.00
J S Saini	210,360.00	220,439.00	40,512.00	124,687.00	34,331.00	630,329.00	210,360.00	220,439.00	124,687.00	40,512.00	34,331.00	1,128,594.00	(498,265.00)	132,064.00
DD Sharma	268,152.50	217,136.00	39,876.00	124,687.00	37,921.50	687,773.00	268,152.50	217,136.00	124,687.00	39,876.00	37,921.50	1,236,300.00	(548,527.00)	139,246.00
SP Bedi	206,947.00	211,834.00	38,906.00	121,679.00	33,352.50	612,718.50	206,947.00	211,834.00	121,679.00	38,906.00	33,352.50	1,096,856.00	(484,137.50)	128,581.00
A K Duggal	237,311.00	200,466.00	36,705.00	116,526.00	34,352.00	625,360.00	237,311.00	200,466.00	116,526.00	36,705.00	34,352.00	1,122,762.00	(497,402.00)	127,958.00
Lini Methew	168,716.00	144,302.00	26,563.00	100,218.00	24,978.00	464,777.00	168,716.00	144,302.00	100,218.00	26,563.00	24,978.00	828,636.00	(363,859.00)	100,918.00
Bakshish Singh	162,525.00	133,105.00	24,373.00	94,443.00	23,538.00	437,984.00	162,525.00	133,105.00	94,443.00	24,373.00	23,538.00	780,864.00	(342,880.00)	95,104.00
Man Mohan	150,903.00	147,130.00	27,106.00	91,684.00	23,816.00	440,639.00	150,903.00	147,130.00	91,684.00	27,106.00	23,816.00	787,022.00	(346,383.00)	94,256.00
RK Goyal	70,187.50	109,098.00	20,457.00	44,966.00	14,365.00	259,073.50	70,187.50	109,098.00	44,966.00	20,457.00	14,365.00	466,528.00	(207,454.50)	51,619.00
Surinder Singh	51,567.50	84,349.00	15,791.00	34,065.00	10,902.00	196,674.50	51,567.50	84,349.00	34,065.00	15,791.00	10,902.00	354,016.00	(157,341.50)	39,333.00
KS Rana	43,962.00	69,920.00	13,132.00	27,686.00	9,115.00	163,815.00	43,962.00	69,920.00	27,686.00	13,132.00	9,115.00	295,364.00	(131,549.00)	32,266.00
BS Pabla	156,476.50	217,532.00	52,140.00	121,684.00	33,525.50	581,358.00	156,476.50	217,532.00	121,684.00	52,140.00	33,525.50	1,031,874.00	(450,516.00)	130,842.00
	5,074,847.50	2,566,081.00	484,565.00	2,314,361.00	596,218.00	11,036,072.50	5,074,847.50	2,566,081.00	2,314,361.00	484,565.00	596,218.00	18,855,472.00	(7,819,399.50)	3,216,673.00
	10,149,695.00	5,132,162.00	969,130.00	4,628,722.00	1,192,436.00	22,072,145.00						18,855,472.00		3,216,673.00
	101.50	51.32	9.69	46.29	11.92	220.72						188.55		32.17

**NATIONAL INSTITUTE OF TECHNICAL TEACHERS TRAINING AND RESEARCH,
SECTOR-26, CHANDIGARH
BALANCE SHEET NEW PENSION SCHEME AS AT 31.3.2012**

LIABILITIES		ASSETS	
			(Rupees in lakh)
NPS as per ledger	32.17	FDRs	11.56
Excess of Interest	-17.59	Saving Bank Account	2.26
		Recoverable from Instt.	0.29
		Interest accrued on FDR up to 31.3.2012	0.47
Total	14.58		14.58

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

**Sd/-
Director
NITTTR, Chandigarh**

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INTEREST ACCOUNT - NPS AS AT 31.3.2012

(Rupees in lakh)

Opening Balance	3.82
Interest allowed by Bank during the year	9.20
Interest accrued during the year	0.47
Less Interest allowed to the subscriber during the year	-21.61
Less interest accrued on FDR during previous year	-9.11
Add : Excess Remittance to CRA	0.29
Add : Prior Period Adjustment	-0.65
TOTAL	-17.59

Sd/-
Accounts Officer
NITTTR, Chandigarh.

Sd/-
Director,
NITTTR, Chandigarh

CASH BOOK ACCOUNT NPS AS AT 31.3.2012

(Rupees in lakh)

Opening Balance as on 1.4.2011		96.21
Subscription during the year		
Employee Share	48.51	
Instt. Contribution	<u>48.51</u>	97.02
		0.29
 Add : Intt. Allowed by Bank		 9.20
 Less :-		
Share - Remitted		-188.55
Charges		-0.06
 Total		 <u>14.11</u>

**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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