

ANNUAL REPORT

2012-13

(ENGLISH VERSION)



**NATIONAL INSTITUTE OF
TECHNICAL TEACHERS TRAINING AND RESEARCH
CHENNAI – 600 113**

FROM THE DIRECTOR

National Institute of Technical Teachers Training and Research, Chennai –NITTTTR, Chennai is glad to present the treatise on collective efforts in the quest of excellence in technical education through various activities of Institute in the form of Annual Report for the year 2012-13. This report reflects the accomplishments made in the area of technical teachers training (Polytechnics and Engineering colleges), research, curriculum development, overseas training programmes along with other various training programs and activities by the dedicated work of our faculty members. This report also incorporates the Vision, Mission and Objectives of Institute and its functions, co-ordination with State, National and Regional level bodies and activities undertaken by Institute under various National Schemes.



We are always striving to take advantage of technological developments that can make our training programmes more effective and accessible to our teachers nationwide. We recognize that not all faculty members have the same reliable access to technology, so we are careful to integrate the latest technological developments into our training, without making our training inaccessible or unaffordable for anyone. The continuous upgradation of laboratory and instructional facilities assure the participants a rewarding learning experience and change in environment through beautification also added pleasant learning experience.

This year 2012-13 represented another period of expansion and development. During this year

- Training of 4600 technical teachers and personnel from industries*
- Training of 122 teachers, policy makers and educational administrators from 39 countries through 8 Overseas Trainees Courses*
- 53 candidates are undergoing Doctoral and Master's Programmes*
- Curricula of eight overseas trainees programme were revised.*
- Development of 131 instructional resources (print type materials and videos)*
- Carrying out 7 Research & Development Projects to tune of Rupee Two crores*

Although we serve many tens of thousands of individuals worldwide, perhaps the most gratifying part of our work at NITTTTR is when we hear directly from individual faculty members who have undergone training in our institute. They participate in discussions and send email to our faculty members. We set out with a commitment and broad vision for our future programmes through your valuable support. It is hoped that the faculty and the management of the polytechnics/engineering institutions will come forward in large numbers to participate in the programmes and derive maximum benefit from our common effort towards improving the quality of technical education.

The Institute has received incessant motivation and direction from Dr. S.R.K. Prasad, Chairman, BoG, and other eminent members of the BoG, as well as the Secretary, Additional Secretary, Director, Deputy Educational Advisor and other officials from Ministry of Human Resource Development, Govt. of India. I see this opportunity to express our gratefulness towards them. I would also thank all those who inspired and encouraged us in our search of quality in technical education through moulding the technical teachers for effective teaching during this year. I hope and assure that the Institute will continue to attain higher levels of achievements in the years to come.

Prof. Dr. S. MOHAN
DIRECTOR

TABLE OF CONTENTS

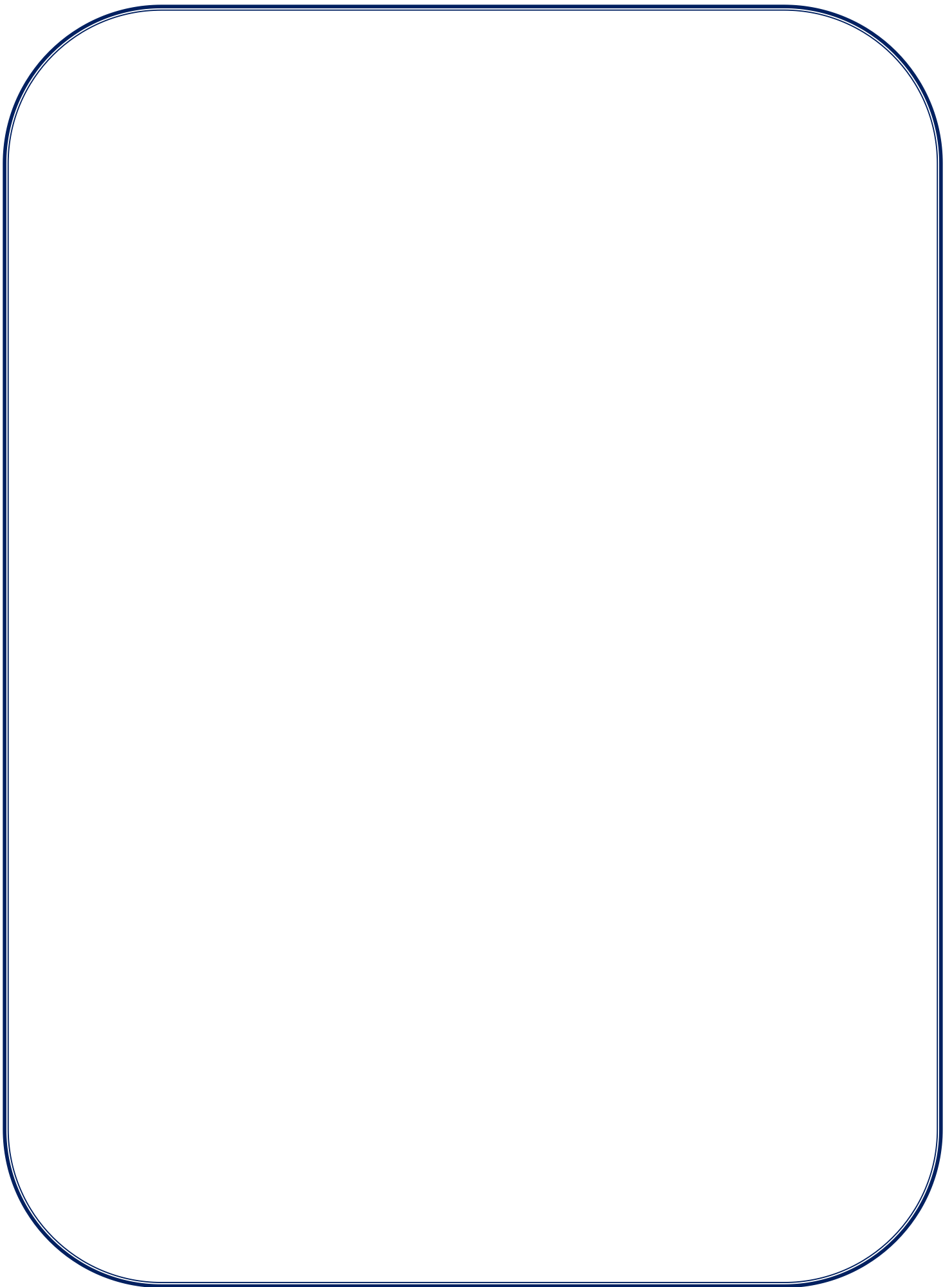
PART - I ACTIVITY REPORT

1.0	PREAMBLE.....	1
2.0	OBJECTIVES.....	2
3.0	FOCUS OF ACTIVITIES DURING 2012-2013	3
4.0	FACULTY DEVELOPMENT PROGRAMMES.....	5
4.1	LONG TERM TRAINING PROGRAMMES.....	6
	a) DOCTORAL RESEARCH PROGRAMME.....	6
	b) M.TECH. (HRD) PROGRAMME.....	7
	c) OVERSEAS TRAINEE COURSES.....	7
4.2	SHORT TERM TRAINING PROGRAMMES.....	14
	a) POLYTECHNIC COLLEGE PROGRAMMES.....	14
	b) POLYTECHNIC PROGRAMMES WEB CAST MODE.....	16
	c) ENGINEERING COLLEGE PROGRAMMES.....	21
4.3	INDUSTRIES AND OTHER ORGANISATION PROGRAMMES.....	23
4.4	MEMORANDUM OF UNDERSTANDING.....	25
4.5	INTERNATIONAL /SEMINARS/CONFERENCES / WORKSHOPS CONDUCTED.....	26
5.0	CURRICULUM DEVELOPMENT.....	31
6.0	INSTRUCTIONAL MATERIALS DEVELOPMENT.....	32
7.0	INSTRUCTIONAL MEDIA DEVELOPMENT.....	32
8.0	PROJECTS RELATED TO RESEARCH & DEVELOPMENT AND EXTENSION & CONSULTANCY SERVICES.....	32
9.0	NATIONAL SKILL DEVELOPMENT PROGRAMME.....	33
10.0	SCHEME OF COMMUNITY DEVELOPMENT THROUGH POLYTECHNICS.....	35

11.0	INTEGRATING PERSONS WITH DISABILITIES INTO THE MAIN STREAM OF TECHNICAL AND VOCATIONAL EDUCATION.....	36
12.0	VIRTUAL NITTTR.....	38
13.0	IMPLEMENTATION OF THE e-GOVERNANCE PROJECT.....	39
14.0	IMPLEMENTATION OF THE USE OF HINDI LANGUAGE.....	40
15.0	INTER NITTTR SPORTS MEET.....	41
16.0	FACULTY NEWS.....	41
17.0	ACKNOWLEDGEMENTS.....	44
18.0	BOARDS SUBCOMMITTEES.....	44

PART - II
REPORT ON ACCOUNTS

1	AUDIT CERTIFICATE AND AUDIT REPORT.....	60
2	ANNUAL ACCOUNTS.....	63
	BALANCE SHEET AS ON 31.03.2013.....	64
	INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31.03.2013.....	65
	RECEIPTS AND PAYMENTS FOR THE PERIOD / YEAR ENDED 31.03.2013.....	66
	SCHEDULE – 1 (CORPUS / CAPITAL FUNDS).....	68
	SCHEDULE – 3 (EARMARKED / ENDOWMENT FUNDS).....	69
	SCHEDULE – 7 (CURRENT LIABILITIES AND PROVISIONS).....	70
	SCHEDULE – 8 (FIXED ASSETS).....	71
	SCHEDULE – 11-18 (CURRENT ASSETS AND LOANS AND ADVANCES).....	72
	SCHEDULE – 20-22 (EXPENDITURE).....	74
	OVERSEAS TRAINING COURSE (OTC) BALANCE SHEET FOR THE YEAR ENDED 31.03.2013	76
	OVERSEAS TRAINING COURSE (OTC) INCOME & EXPENDITURE FOR THE YEAR ENDED 31.03.2013.....	77
	OVERSEAS TRAINING COURSE (OTC) RECEIPTS AND PAYMENTS ACCOUNT FOR THE YEAR ENDED 31.03.2013.....	78
	PROJECT ACCOUNT BALANCE SHEET FOR THE YEAR ENDED 31.03.2013	79
	PROJECT ACCOUNT INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31.03.2013.....	81
	PROJECT ACCOUNT RECEIPTS AND PAYMENTS ACCOUNT FOR THE YEAR ENDED 31.03.2013.....	82
	SCHEDULE – 24 (SIGNIFICANT ACCOUNTING POLICIES)	83
	SCHEDULE – 25 (NOTES ON ACCOUNTS).....	84
	UTILISATION CERTIFICATE (NON-PLAN) – SALARY.....	85
	UTILISATION CERTIFICATE (NON-PLAN) – GENERAL.....	86
	UTILISATION CERTIFICATE (PLAN) – GENERAL.....	87
	UTILISATION CERTIFICATE (PLAN) – CAPITAL ASSETS.....	88
3.	PROVIDENT FUND ACCOUNTf	89
	PROVIDENT FUND ACCOUNT BALANCE SHEET FOR THE YEAR 31.03.2013.....	90
	PROVIDENT FUND ACCOUNT INCOME AND EXPENDITURE FOR THE YEAR 31.03.2013.....	91
	PROVIDENT FUND ACCOUNT RECEIPTS AND PAYMENTS FOR THE YEAR 31.03.2013	92



1.0 PREAMBLE



The National Institute of Technical Teachers Training and Research (NITTTR) Chennai was established as an autonomous Institute by the Ministry of Human Resource Development, Government of India in the year 1964 to improve the quality of Technical and Vocational Education and Training (TVET) system in India and in the Southern Region in particular. Within this mandate, the institute takes initiatives to offer need based Human Resource Development programmes through appropriate modes and develop curricula and instructional resources. It also fosters research in the core engineering area and also in the inter disciplinary area of Engineering Education and offers consultancy and extension services for the total development of Engineering Colleges, Polytechnics, Vocational institutions, Industry, Service sector and the Community at large.

In carrying out the above mandate, the institute collaborates with national and international Institutes, Universities and other agencies interested in and / or deriving benefits from technical and vocational education and training.

VISION

NITTTR, Chennai envisions to be a leading institute in promoting excellence in Technical and Vocational Education and Training (TVET) systems by planning, designing, developing, implementing and evaluating quality training programmes, learning resources, research studies and extension services for Technical educational institutions, Industry and Community.

Our Short Vision Statement:

“Promoting Excellence in Technical Education”

MISSION

NITTTR, Chennai is a resource Institution established by the Government of India for quality improvement of Technical and Vocational Education and Training (TVET) in the Southern Region of the country in particular.

The following are the elements of mission towards which the institute is committed to work:

- * To offer quality, flexible, relevant and cost-effective training programmes for technical teachers, in various modes including web based one.
- * To demonstrate leadership by organising dynamic and leading edge programmes to meet the changing needs of the Industry and the Community.
- * To develop into a Deemed University in order to provide effective and efficient services to the technical teachers.
- * To help in solving problems in Engineering and Education through research, development and extension activities.
- * To establish and foster collaboration with industry, state, national and international Institutes, Universities and other agencies committed to the development of Technical Education in the country.

CORE VALUES

The following are the rubrics of our core values of our service to teachers and in turn to students.

- ◆ Quality Education and Training
- ◆ Team work
- ◆ Staff Development for continuous learning
- ◆ Openess and Transparency
- ◆ Cliental focus
- ◆ Social responsibility

2.0 OBJECTIVES

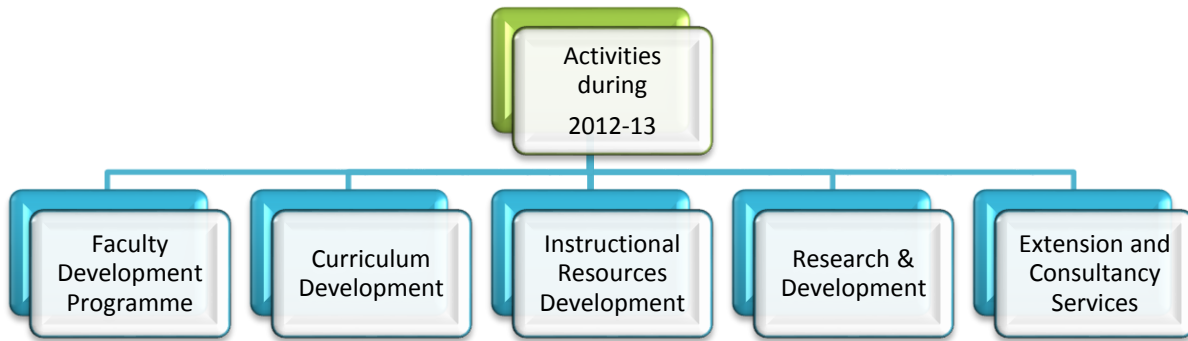
The objectives of the institute are:

- ✓ To act as a centre for offering quality training programmes for teachers as per needs of the client system, covering the entire gamut of technical education including engineering colleges, polytechnics, vocational and management education, at regional and national levels.
- ✓ To arrange for training of technical personnel in industries on a cooperative education plan.
- ✓ To undertake systemic research to provide inputs for development of technical education training systems and their management.

- ✓ To undertake and guide 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 Textbooks, 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 in distance learning mode using state-of-the-art technologies.
- ✓ To offer courses / programmes for technical and vocational teachers to suit overseas demand especially from SAARC & ASEAN countries.
- ✓ To institute and award fellowships, scholarships, prizes and medals.
- ✓ To collaborate with Community and Industries in organising Continuing and Non-formal vocational education programmes and providing extension and consultancy services.
- ✓ To undertake Consultancy and Extension work for industry, technical institutions / organisations.
- ✓ To establish Extension Centres of the institute in different States with the approval of Govt. of India, for serving the specific needs of each State.
- ✓ 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 similar 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 objects.

3.0 FOCUS OF ACTIVITIES DURING 2012-2013

As a dynamic organisation, the institute periodically reorients its programmes and activities to proactively respond to the changing needs of the clientele system. During the year 2012-2013 the institute undertook programmes, projects and activities under five major areas namely: (i) Faculty Development, (ii) Curriculum Development, (iii) Instructional Resources Development, (iv) Research & Development and (v) Extension and Consultancy Services.



The institute focused on the following activities during the year 2012-2013:

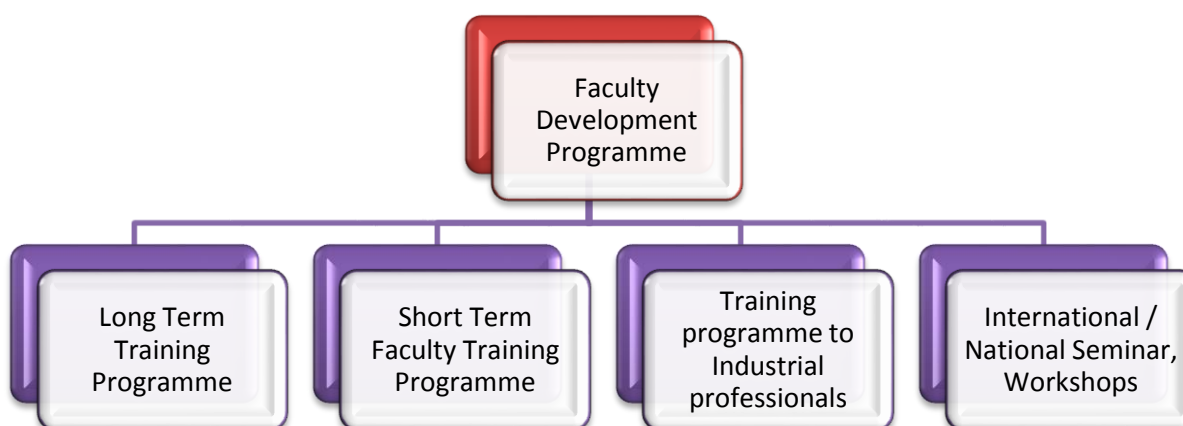
1. Training of teachers of Engineering Colleges, Polytechnics and personnel from industry and professionals through Short term courses in areas like Engineering and Technology, Applied Science, Instructional Design and Delivery, Educational Technology, Accreditation, Strategic Planning, Educational Management, Institutional development, Human Resource Development, Curriculum Development and Entrepreneurship Development.
2. Web based training programme in the area of basic and advanced pedagogy for the faculty members of technical institutions.
3. Conducting Seminars for Professional Development of Teachers.
4. Developing research capabilities in teachers of Engineering Colleges, Polytechnics and personnel from industries through Inter-disciplinary research leading to Ph.D.
5. Training of teachers of Engineering colleges, Polytechnics and others through long term programmes like M.Tech. (HRD).
6. Providing expertise to overseas participants through specially designed training programmes.
7. Developing curricula for education and training programmes and revising the curricula of existing programmes.
8. Developing/revising instructional resources (materials and media) needed for effective implementation of Polytechnic and Engineering College Curricula.
9. Undertaking research and development projects relevant to technical education system.
10. Developing and offering Virtual learning programmes for training technical teachers and professionals from industries.

11. Providing extension & consultancy services for the effective implementation and monitoring of the following schemes / projects:

- a. Scheme of Community Development through Polytechnics
- b. Sub Mission on Polytechnics
 - Strengthening of Existing Polytechnics
 - Construction of Women's Hostel
 - Setting up of New Polytechnics
- c. Project for Persons With Disabilities
- d. National Skill Development Mission
- e. National Mission on Education through ICT
- f. National Mission on Teachers and Teaching
- g. Expert committee visit to facilitate accreditation and approval of new polytechnics
- h. Technical and consultancy service in the area of engineering / technology
- i. Need based Human Resource Development programmes and projects for Industries, Govt. Departments and Service organizations

4.0 FACULTY DEVELOPMENT PROGRAMMES

Faculty Development Programmes for teachers of Engineering Colleges and Polytechnics is a priority area of the institute. In recognition of this, the institute planned and conducted a variety of short term and long-term training programmes for teachers and staff of the Polytechnics, Engineering Colleges and overseas teachers to enable them to acquire competencies relevant to their respective areas of work.



4.1 LONG TERM TRAINING PROGRAMMES:

a) DOCTORAL RESEARCH PROGRAMME:

The institute continued to vigorously promote educational research programmes and encourage technical teachers, working personnel from industries and other education sectors to undertake research work in the areas of Engineering Education (Inter-disciplinary). The institute is a recognized doctoral research centre by Anna University, Chennai and University of Madras.

During this year, two candidates registered for Ph.D. in Engineering Education (Inter-disciplinary) programme of University of Madras. Thus to date, 49 candidates have registered for Ph.D. Programme in this institute.

The following three research scholars were awarded Ph.D. degree in Engineering Education by the University of Madras during this year.

Table 1 Particulars of Ph.D. Degrees Awarded

S. No.	Name & Institutional affiliation of the candidate	Title of the Thesis	Supervisor	Date of award of Degree
1.	Mr. C. V. Anand Babu Group Delivery Manager MphasiS HP Limited, Chennai	Agile Based Instructional Model for Middleware S/W Training System	Dr.T.Gnana Sambanthan EDP Manager and Head Computer Centre.	30 .05. 2012
2.	Mr. D.E. Dekson Professor, Department of Computer Science, Aarupadai Veedu Institute of Technology, Chennai-603104	Effectiveness of Adaptive and Intelligent E-Portfolio Architecture for Learning	Dr. E. S. M. Suresh Professor and Head, Dept. of Civil Engineering	26. 09. 2012
3.	Mr. D. Lakshminaraynan Full Time Research Scholar Department of Policy Planning & Educational Research NITTTTR, Chennai – 113	Diagnosis of MCA Students' Learning Difficulties in Accessing Members of a Structure Using Pointers in C Programming Language	Dr. D. Brahadeeswaran, Former Professor and Head, Department of Policy Planning & Educational Research	02. 01. 2013

So far a total number of 56 scholars have been awarded Ph.D. degree.

Ph.D Progress Review Meetings:

A system of monitoring the progress of Ph.D. Scholars by conducting review meetings, once in six months was introduced in the year of 2009. The purpose of this initiative is to enrich the quality of the

research work through formative evaluation and providing constructive feedback. During this year, the Review Committee conducted the sixth Progress Review meetings during 2 - 5, May 2012. A total of 35 scholars presented their work. The seventh progress review meetings were conducted on 22 - 30, October 2012. A total of 32 scholars presented their work to the Review Committee and received very useful feedback and suggestions.

b) M.Tech. (Human Resource Development) PROGRAMME:

This programme of four semester aims to produce competent human resource developers for the technical education sector.

This programme includes courses in Management, Organisational Behaviour and Performance, Industrial Sociology, Psychology in Industry, Research Methodology in HRD, Computer Applications & Information Technology in HRD, Organisational Development, Transformation and Re-engineering, Human Resource Development, Strategic Human Resource development, Designing and Managing Human Resource Systems, Institutional Evaluation & Development and Courseware Development for HRD Programmes.

During this year, four candidates joined the VIII Batch of M.Tech (HRD) programme.

c) OVERSEAS TRAINEES COURSES:

During the year 2012-13, the institute organized eight training programmes for the overseas participants under the ITEC Programme and its corollary SCAAP (Special Commonwealth African Assistance Programme). It is fully-funded by the Government of India, for training civilians from 158 countries in Asia, East Europe (including former USSR), Central Asia, Africa, and Latin America, the Caribbean as well as Pacific and Small Island countries. As a result, NITTTR Chennai is actively involved in conducting specially designed training programme under ITEC programme for the past 31 years, there is now a great visibility and growing awareness among other countries about the competence and service provided by NITTTR Chennai. Over the years, the technical and economic assistance programme of Ministry of External Affairs, Govt. of India has generated immense goodwill and substantive cooperation among the developing countries. Centre for International Affairs coordinates the programme with the subject coordinators of each course.

Table 2: Eight Weeks OTC Programmes during the year 2012-13

Courses	Subject Coordinators
Curriculum Design and Instructional Material Development	Dr. S. Dhanapal
Water Quality Analysis: Laboratory Practices	Dr. S. Mohan & Dr. G. Janardhanan
Developing Technical Education to meet the Millennium Development Goal	Dr. S. Mohan & Dr. G. Kulanthaivel
Modern Library Practices	Dr. R. Ravichandran
Sustainable Development and Environmental Management	Dr. S. Mohan & Dr. G. Janardhanan
Women Empowerment through technical and vocational education	Dr. S. Renukadevi
Human Resource Development	Dr. S. Renukadevi
Geographic Information system and its applications in Resource Planning	Dr. E. S. M. Suresh & Er. K. S. A. Dinesh Kumar

Table 3: Enrolment by Nation: 2012-13

Countries	No. of Participants Enrolled	Countries	No. of Participants Enrolled	Countries	No. of Participants Enrolled
POLAND	1	NIGERIA	5	BHUTAN	2
MYANMAR	7	ZIMBABWE	4	IRAQ	3
SUDAN	3	BELARUS	1	ETHIOPIA	8
UZBEKISTAN	4	MONGOLIA	3	FIJI	5
MAURITIUS	2	BISSAU	1	INDONESIA	2
NAMIBIA	3	CAMEROON	3	LAOS	3
TANZANIA	6	SRILANKA	2	NEPAL	7
GHANA	5	MALAWI	1	VIETNAM	9
CAMBODIA	9	BOTSWANA	2	DEMO. REP. of CONGO	1
UGANDA	2	SIERRA LEONE	2	KENYA	3
ZAMBIA	4	SEYCHELLES	1	LESOTHO	2
BANGLADESH	1	PALESTINE	1	GUINEA	1
SYRIA	1	GAMBIA	1	TRINIDAD & TOBAGO	1
Total candidates					122

i. Advanced Certificate Course on “Curriculum Design and Instructional Material Development”

The course aims at developing competencies needed for curriculum design and development of appropriate instructional materials. The 31st batch of this course was conducted by the Curriculum Development Centre of the institute from 1st August to 29th September 2012. Fifteen participants from ten countries viz., Ghana, Mauritius, Myanmar, Botswana, Iraq, Nepal, Cambodia, Vietnam, Tanzania and Uzbekistan attended this course. A total number of 558 Overseas trainees were trained by the institute through this course., until now.



ii. Advanced Certificate Course on “Human Resource Development”

The main objective of the course was to train human resource managers of various departments of Government and industries for planning and implementing HRD Programmes and Projects. The sixth batch of this course was conducted by the Department of Education of this institute from 1st August to 29th September 2012. Ten participants from eight countries viz., Cambodia, Malawi, Uganda, Seychelles, Myanmar, Ghana, Nepal and Zimbabwe attended this course. So far (including the sixth batch), a total number of 98 Overseas trainees were trained by the institute through this course.



iii. Advanced certificate course on Developing Technical Education to meet the Millennium Development Goal

Centre for International Affairs, offered the second batch of this course from 4th October to 26th November 2012. Sixteen participants from 12 countries viz., Belarus, Cambodia, Guinea Bissau, Nepal, Syria, Uzbekistan, Cameroon, Kenya, Zambia, Laos, Fiji and Myanmar participated in the programme. The main focus of this programme is to assess the human resource needs of the growing industries from skilled workers to engineers / technologists / managers. Outcome



was focused towards developing National Education Policy through the participation of stake holders and preparing guidelines for organizing technical education institutions through public private participation. So far (including the second batch), a total number of 33 Overseas trainees were trained by the institute through this course.

iv. Advanced Certificate course on “Sustainable Development and Environmental Management”

The main objective of this course is to inculcate the values, behaviors and lifestyles required for a sustainable future and for positive societal transformation. The enabling objectives are:



- a. To provide an understanding To provide an understanding on the methods and approaches for sustainable environmental development and understand the interrelationships among socio, economic and environmental issues;
- b. To provide the mode of assess the impact of developmental project on environment and to suggest appropriate remedial measures; and

c. To foster an increased quality of teaching and learning in education for sustainable development;

This is the third batch, coordinated by the Centre for Environmental Management from 4th October to 29th November 2012. Sixteen participants from 12 countries viz., Cambodia, Democratic Republic of Congo, Poland, Nepal, Uzbekistan, Zimbabwe, Nigeria, Cameroon, Namibia, Lesotho, Sudan and Vietnam attended this Programme. Highlight of the course is stay and interaction with village residents regarding the sustainability practices implemented in India. Overseas participants interacted with women in rural hamlets to understand the role of women in agricultural, micro finance and their empowerment.



In addition to this, they also understood the power of education in transforming India. Progress made



towards achieving the target stated in the millennium development goal number 2 - achieving primary education, is witnessed through Right to Education and SSA schemes. Ensuring environmental sustainability is the goal number 7 towards the millennium development goals. What are the best agricultural practices used towards ensuring water, land sustainability is showcased with interaction with local farmers and other NGO's meet. Government of India's Krish Vigyan

Kendra and its role in transforming India in the area of food supply is felt in the visit. Participants are provided wide exposure in the area of Corporate Social Responsibility. So far (including the third batch), a total number of 60 Overseas trainees were trained by the institute through this course.



v. Advanced Certificate course on Modern Library Practices

The main objective of this course was to develop competencies for facilitating e access to IT based knowledge – streamlining library processes, promoting and enhancing reading habits among the users –



managing and developing collections, services and facilities. The fifth batch of this course was conducted by the Resource Centre of this institute from 5th December to 30th January 2012. Twenty six participants from 15 countries viz., Ethiopia, Indonesia, Nepal, Republic of Fiji, Mongolia, Cambodia, Nigeria, Tanzania, Namibia, Kenya, Lesotho, Gambia,

Vietnam, Zambia and Zimbabwe attended this course. So far (including the fifth batch), a total number of 111 Overseas trainees were trained by the institute through this course.

vi. Advanced Certificate Course on “Women Empowerment through Technical and Vocational Education”

The course was designed to enable the participants to evolve appropriate strategies for women empowerment in their respective countries and use these strategies. The sixth batch of this course was

conducted by the Department of Education of this institute from 4th February – 29th March 2013. Nine participants from eight countries viz., Ghana, Indonesia, Ethiopia, Bangladesh, Tanzania, Zambia, Myanmar and Zimbabwe attended this course. So far (including the sixth batch), a total number of 65 overseas participants were trained by the institute through this course.



vii. Advanced Certificate Course on Geographic Information system and its applications in Resource Planning

The first batch of this course was conducted by Civil Engineering Department from 04.02.13 to 29.03.13. Fifteen participants from Ethiopia, Vietnam, Laos, Tanzania, Palestine, Cambodia, Fiji Island, Trinidad &



Tobago, Sierra Leone, Nigeria and Myanmar attended the programme. The contents of the course include (a) Fundamentals of GIS and Digitizing (b) Map characteristics and creation (c) Attribute data Management and MIS (d) GIS querying and presentation (e) GIS Modelling and e-governance and (f) Project work

viii. Advanced Certificate Course on “Water Quality Analysis: Laboratory Practices”

The objective of this course was to provide innovative and responsive professional development and training in the area of water quality assessment through improved monitoring, good laboratory practice technique, effective application and enforcement of legal and institutional arrangements. The third batch of

this course was conducted by the Centre for Environmental Management of the institute from 4th February to 29th March 2013. Fifteen participants from twelve countries viz., Ethiopia, Indonesia, Iraq, Laos, Mongolia, Sierra, Leone, Sri Lanka, Tanzania, Uganda, Uzbekistan, and Vietnam attended this course. This course was structured into three major



units totaling up to 12 curriculum modules. Course is proper blend of field and lab studies with integrated lectures in preexisting related courses (text or lecture-note based). Training programme explored the

subject through resources, development, impact and management. So far (including the third batch), a total number of 34 Overseas trainees were trained by the institute through this course.

Highlights of the Overseas Trainees Courses:

- The participants of the eight courses listed above were sponsored by the Indian Technical and Economic Cooperation Scheme (ITEC) and the Special Commonwealth Africa Assistance Programme (SCAPP) of the Ministry of External Affairs and Technical Corporation Scheme (TCS) of Colombo Plan of Ministry of Finance of Government of India.
- A total of 122 persons (teachers and administrators) from 39 countries participated in these courses.
- In SDEM course, participants stay in the village and understand the progress made towards achieving the sustainability and in turn Millennium development goals.
- Individual presentation in the seminars by the participants and carrying out project work individually.
- Participants were exposed to Indian culture and tradition through visits.
- In their feedback, they have stated that the courses were conducted very effectively & efficiently.
- The logistics and stay in India were found to be very enjoyable by them.
- They have assured that they will utilize the newly acquired competencies in performing their job in their home countries, on their return.

4.2 SHORT TERM TRAINING PROGRAMMES:

a) POLYTECHNIC COLLEGE PROGRAMMES

The institute continued to implement the Government of India's scheme of Quality Improvement Programme (QIP). The main objective of the scheme is improving the competencies of a large number of teachers in a relatively short period through short-term staff development courses of one to two weeks duration. Recognizing the need for teachers and other staff to enrich their knowledge and keep themselves abreast with the latest technologies, the institute organised training and re-training courses of duration varying between one and two weeks. These training courses are continuously reviewed, modified and redesigned so that the ever expanding and changing needs of teachers are met.

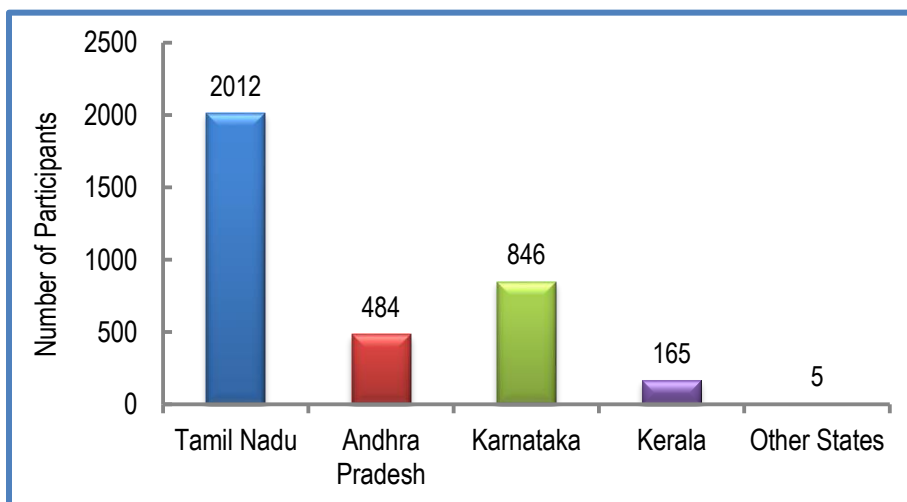
The specific training needs of the teachers of the polytechnics in each of the southern states were identified through customized workshops. Four such workshops were conducted – one in each state. The course details, duration and venue were finalized in Programme Development Committee meetings

attended by the representatives of Directorates of Technical Education and Principals of selected Polytechnics. These meetings ensured that the courses planned, designed and conducted catered to the training needs of teachers. These staff development courses were organized at the institute, its Extension Centres and also in selected polytechnics. The participation of experts from industries and institutions of repute such as IITs and CSIR Laboratories enriched the effectiveness of the training courses. Industrial visits formed an integral component of majority of the training courses.

During this year the courses were conducted in the following areas:

- ▶ Content updating in Engineering and Technology
- ▶ Instructional Design and Delivery System (Basic and Advanced Pedagogy)
- ▶ Evaluation of Students Performance
- ▶ Student Services
- ▶ Guidance and Counseling
- ▶ Stress Management
- ▶ Technology Enabled Teaching and Learning
- ▶ Library Automation

The performance in this area during the year under report had been impressive as 109 courses were conducted involving a total of **3512** participants (Male: **2469**, Female: **1043**) from the polytechnics. Thus to date **65,232 teachers** have been trained through **3497 courses**.



Number of faculty trained during 2012-13

b) POLYTECHNIC COLLEGE PROGRAMMES - WEB CAST MODE

The Ministry of Human Resource Development (MHRD), Govt. of India (GOI) has initiated the National Mission on Teachers and Teaching (NMTT). The mission addresses issues related to capacity building for improvement in teacher qualification, pedagogical skills, communications skills, technology enabled teaching, teacher absenteeism and accountability, continuous training and retraining, pre-service and in-service training, academic growth and development of university teachers and engineering/technical teachers. The mission provides a holistic look into teacher education and suggests ways to strengthen the institutional mechanisms at all levels. Under this mission, NITTTRs are envisaged to play a leading role in induction training, and to provide in-service training of technical teachers in Polytechnics and Engineering colleges for making this mission highly successful and fruitful. As part of the mission, the MHRD, Govt. of India aims to train every polytechnic teacher during the current plan period, on current practices of pedagogy and renew their ability to meet the demands of present day teaching learning process for providing excellent technician education. The webcast studio is developed at NITTTR Chennai with the adequate facilities for the webcasting of the training programme. Lectures are broadcasted as per the schedule and authorized nodal centres can relay the lecture and discussion session. NITTTRs have been identified for this noble activity to impart pedagogical training to faculty members for making teaching effective, by MHRD.

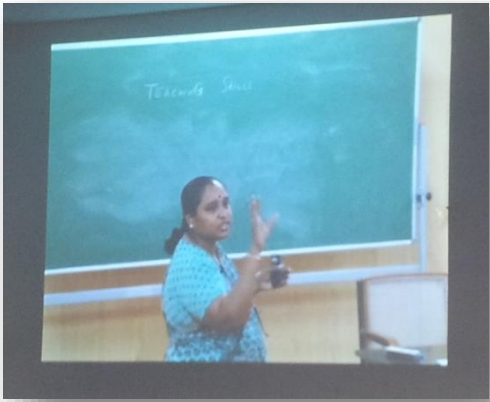
So far a sixth batch of web based IDDS programme was conducted. The first programme was inaugurated by the Director of Technical Education, Government of Tamil Nadu, with felicitation from the Managing Director, Auto Desk Company, Singapore and the third programme was inaugurated by the Deputy Commissioner of British Embassy. The commissioner of technical education, Tamil Nadu inaugurated and launched the Webcast IDDS programme at NITTTR Chennai and interacted with all participated polytechnic.





Lecture delivered from the headquarters and transmitted to the nodal centres

Trainees are deeply engrossed in listening to the lecture delivered. Active participation is also ensured.



Interacting with the participants and encouraging the active participation

Director of NITTTTR witnessing the quality of the programme through visiting each nodal centre during the programme



At the end of every class, discussions are held with the participants of every centre through skype mode. Good interaction is promoted in the programme, supplementing each presentation for effective learning.



Online interaction - Question and Answer session

Table 4: Enrolment in Polytechnic courses 2012-13

Sl. No.	TOPIC	No. of Participants
NITTTR CHENNAI CAMPUS		
1.	Instructional Design and Delivery System	43
2.	Computer Aided Drafting and Building Information Modeling using AutoCAD and REVIT Architecture packages	16
3.	Instructional Design and Delivery System	43
4.	Web IDDS - 1	313
5.	Instructional Design and Delivery System	19
6.	Non-Conventional Energy Sources	16
7.	Digital and Fiber Optic Communication	17
8.	Relevant Provisions of Indian Standard Codes of Practice and their Applications in Structural Engineering	14
9.	RDBMS & Advanced DBMS	12
10.	Online Media Development	14
11.	CAD and Digital Prototyping using Inventor	15
12.	Instructional Design and Delivery System	43
13.	Web IDDS -2	363
14.	Power Electronics	17
15.	Active Server Pages .NET	14
16.	Limit State Design of Steel Structures as per I.S. 800 -2007	19
17.	Educational Video Production Workshop for Teachers of Civil and Architecture branches	9

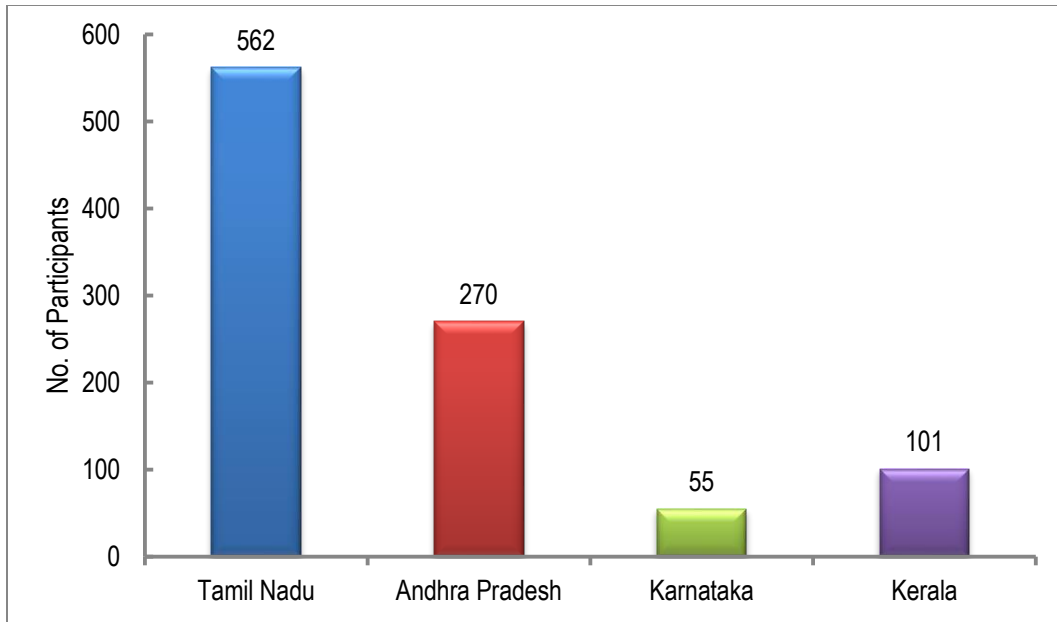
Sl. No.	TOPIC	No. of Participants
18.	RDBMS using ORACLE for Commercial Practice Teachers	14
19.	Communication Skills	26
20.	ORCAD – Capture, Simulation and PCB Design	23
21.	CNC Machines	23
22.	Multimedia Development	16
23.	Soft Skills	22
24.	Geotechnical Engineering	12
25.	Instructional Design and Delivery System	18
26.	Web IDDS - 3	324
27.	Evolving Trends in e-Learning Technology	24
28.	Biomedical Electronics and Telemedicine	26
29.	Software Engineering	13
30.	Modern Trends in Automobile Engineering	25
31.	Soft Skills	28
32.	Special Machines & Motor Control	14
33.	Instructional Design and Delivery System	42
34.	Web IDDS - 4	178
35.	8051 Micro Controller and Applications	10
36.	Surveying using Total Station and GPS	15
37.	MySQL	12
38.	Educational Video Production Workshop for Teachers of Computer Science & Allied branches	5
39.	Instructional Design and Delivery System	10
40.	LabVIEW Programming	32
41.	Design of Earthquake Resistant Structures	16
42.	Advanced Manufacturing Techniques	25
43.	Educational Management	13
44.	Limit State Design of Steel Structures as per IS 800-2007	30
45.	Repairs and Renovations of Structures	11
46.	Linux Administration & Shell Scripting	11
47.	Preparation of Evaluation Items for e-Content	13
48.	PLC and SCADA	29
49.	Web IDDS - 5	114
50.	Computer Aided Manufacturing & Metrology	12
51.	Green Building Concepts and Sustainable Development	8
52.	Green Stone – Digital Library Software	28

Sl. No.	TOPIC	No. of Participants
53.	Visual Basic .NET	8
54.	e-Content & Learning Management Systems	21
55.	Satellite and Mobile Communication	22
56.	Robotics & Mechatronics for Industrial Automation	18
57.	Computer Aided Drafting and Building Information Modeling using AutoCAD and REVIT Architecture Packages	20
58.	Graphics and Animation for Video Production	16
59.	8086 Assembly Language Programming and Advanced Microprocessor	17
60.	Environmental Impact Assessment	6
61.	Question Paper Setting and Evaluation of Student Performance	8
62.	Digital Media Development for Education	25
63.	Instructional Design and Delivery System	17
64.	Web IDDS - 6	217
65.	Guidance and Counseling	26
66.	Geographical Information System and Mapping	12
67.	Object Oriented Programming using JAVA	13
68.	Advanced Course on PLC	17
69.	Free & Open Source Software (FOSS)	16
70.	Gender Issues in Technical Education	33
71.	Embedded System (ARM Controller)	21
72.	Environmental Engineering Laboratory Practice	13
73.	Building Information Modeling and Sustainable Development using REVIT Architecture and Allied Autodesk Products	17
74.	MATLAB Programming	23
75.	LINUX Operating System	15
76.	Refrigeration & Air-conditioning	27
77.	Energy Management & Recent trends in Power systems	12
78.	Advanced Java Programming	12
79.	Educational Video Production Workshop for Teachers of Mechanical & Allied branches	18
80.	Nanotechnology and Applications	23
81.	Embedded System (ARM Controller)	15
82.	Data Communication and Computer Networking	20
83.	System Administration	14
84.	Guidance and Counselling	27
85.	Curriculum Development – Methodology	24
86.	Computer Aided Design & Manufacturing	25

Sl. No.	TOPIC	No. of Participants
87.	Instructional Design and Delivery System	13
88.	Virtual Instrumentation using MATLAB and LabVIEW	16
89.	Implementation of e-Governance for Institutional Needs	10
90.	Educational Video Film Making Workshop for Teachers of Computer Science and Allied branches	8
91.	Advances in Welding & Manufacturing Techniques	13
92.	Student Evaluation	21
93.	Soft Skills	37
94.	CAD and Digital Prototyping using Inventor	23
NITTTR - Extension Centre - Bangalore		
95.	CASP 2	20
96.	Computer Aided Manufacturing & CNC Machining	6
NITTTR - Extension Centre - Hyderabad		
97.	Management of Polytechnics for Principals	24
98.	CAD 3D	30
99.	Advances in Wireless Communications	23
100.	Computer Hardware and Networking	30
101.	Students Guidance and Counseling	16
102.	Induction programme for newly recruited teachers	48
NITTTR - Extension Centre - Kalamerry		
103.	General Engineering	35
104.	Energy Management & Audit	22
105.	Alternative Energy Sources & Management	16
106.	Open Source Software - KOHA	18
107.	Workshop on developing Laboratory Workbook – Electrical Engineering	21
108.	Environmental Science and Disaster Management	18
109.	Workshop for Developing Learning Resources for Materials Testing Lab	17
Total		3512

c) ENGINEERING COLLEGE PROGRAMMES

The institute has also focused its activities to improving the quality of education in engineering colleges through training of teachers. **22** short term courses covering **988** participants (Male: 532, Female: 456) were organised. Training programme basically focuses as a tool kit for classroom engineering. Online evaluation is also introduced in this academic year to gauge the effectiveness of the programme,



Thus to date, **21,792** teachers have been trained through **553** courses during the past twelve years.



Enhancing Teaching Skills - Group Discussion



Online Examination



Table 5: Enrolment in Engineering courses - 2012-13

Sl. No.	Venue	No. of Participants
INSTRUCTIONAL DESIGN AND DELIVERY SYSTEM (IDDS)		
1	Karpagam College of Engineering, Coimbatore.	26
2	Selvam College of Technology	58
3	C.K. College of Engg & Tech., Cuddalore.	47
4	K.L. University, Guntur.	50
5	P.S.R. Rengasamy College of Engg. for Women, Sivakasi	50
6	Jansons Institute of Technology, Coimbatore.	46
7	Sree Sastha Institute of Engg & Tech., Chennai.	50
8	Rajiv Gandhi Institute of Technology, Kottayam.	16
9	Kongu Engineering College,	49
10	Kongu Engineering College,	52
11	Mohamed Sathak A.J. College of Engineering, Chennai.	28
12	GMR Institute of Technology, Rajam, A.P.	50
13	Dhanekula Institute of Engg. & Tech., Vijayawada, A.P.	47
14	NITTE Meenakshi Institute of Technology, Bangalore.	55
15	Sree Chitra Thirunal College of Engineering, Thiruvananthapuram	32
16	Jayalakshmi Institute of Technology, Thoppur.	52
17	Sri Venkatesa Perumal Colllege of Engg & Tech., Puttur.	55
18	Sri Krishna College of Technology, Coimbatore.	53
19	Sphoorthy Engineering College, Hyderabad.	50
20	IES College of Engineering, Thrissur.	53
21	PSNA College of Engg. & Tech., Dindigul.	51
22	National Institute of Pharmaceutical Education and Research, Hyderabad	18
Total		988

4.3 INDUSTRIES AND OTHER ORGANISATION PROGRAMMES

The institute has established good collaboration with government organisation and industries. Both the government organisation viz., Public Works Department, Tamil Nadu Highways Department, Pollution Control Board and industries are also availing the experience, expertise and resources of institutions for getting their engineers and staff trained. During 2012-13, the Centre for Environmental Management (CEM) of this institute conducted specialized courses to Tamil Nadu Highways



TNRSP - Induction Training Programme

Department (Tamil Nadu Road Sector Project), Government of Tamil Nadu and trained 100 new recruited assistant engineers. This unique training programme train the newly recruited engineers both in the content and administrative areas. During this year the courses were conducted in the following areas:

1. Environmental Impact Assessment
2. Design of Irrigation Structures
3. Computer Applications in Irrigation Water Management
4. Induction Training Programme for Newly Recruited Highways Department Engineers



Thus to date, 2467 persons had been trained through 114 courses during the past thirteen years.

CPSC In-country Programme on “Web-based Teaching and Learning System”

The institute conducted an In-Country programme on “Web-based Teaching and Learning System in India” from 17th to 22nd December 2012 in collaboration with Colombo Plan Staff College (CPSC) for Technician Education, Manila, Philippines at our institute.

A total of 28 participants comprising academicians, managers of technical and vocational education and training (TVET) institutions and representatives of public and private sectors attended the



programme. The programme enabled the participants to understand the different innovative web-enabled ICT practices, E-learning authoring tools, software and technologies and E-Teaching and Learning systems. It also aimed to provide resources, ideas, strategies to help those involved in the training and development to meet the learning needs of the various institutions using teaching and training techniques, facilitation,

and development activities in TVET system.

Dr. Anil Kumar Nassa, Deputy Education Adviser of Department of Higher Education, Ministry of Human Resources Development, Government of India inaugurated the in country programme and delivered the inaugural address. Prof. Dr. S. Mohan, Director of NITTTR, Chennai presided over the function. Engr. Md. Jahangir Alam, Mr. Felix Sibal, Dr. G. Kulanthaivel and Dr. G. Janardhanan were served as resource persons for the programme.

Master Trainers Training Programme “QMS/QT Models for Polytechnic Teachers”

The institute conducted the Inter NITTTR - Master Trainers Training Programme “QMS/QT Models for Polytechnic Teachers” through Quality Council of India. NITTTR Chennai faculty members attended the training programme on "QMS/QT tools for polytechnic teachers" in two batches. Four faculty members had undergone training at NITTTR Chandigarh and ten participants in NITTTR Chennai. In NITTTR Chennai training program held during 18th to 22nd March 2013, and coordinated by Dr. G. Janardhanan. Dr. S. N. Nandi, Management Consultant New Delhi and Mr. S. K. Verma, Advisor, Quality and Productivity Division,

Engineering Staff College of India Hyderabad acted as a resource person on behalf of Quality Council of India. The programme contents were General concepts of quality; Problem Solving - Basic 7QC Tools; Introduction to 5s, Kaizen, Visual Management; Introduction of Lean Management Introduction to Management



System Standard; Quality Management System Standard; Environmental Management System Standard; Safety Management System Standard and Total Quality Management System.

4.4 MEMORANDUM OF UNDERSTANDING

The following institute, with whom NITTTR signed MOU during the year 2012-13.

- a) M/s. Autodesk INC., Bangalore
- b) Muthayammal Engineering College, Rasipuram, TN

4.5 INTERNATIONAL SEMINARS/ CONFERENCES / WORKSHOPS CONDUCTED

A total of nine seminars / conferences / workshops were conducted during this year. 837 persons from Engineering colleges, Polytechnic colleges, Industries, Government departments and professionals participated in them. The details of each of these programmes are given below.

a) **International seminar on “Academic Management of Engineering Programmes to meet Net Age Challenges”**

An International Seminar on “Academic Management of Engineering Programmes to meet Net Age Challenges” was jointly organised by NITTTR, Chennai and K.L.N College of Information Technology, Madurai on 12th September 2012 at K.L.N College of Information Technology, Madurai. The objectives of the seminar were (i) To know the International Academic management practices in Technical Education, (ii) To develop strategies for strengthening the quality of programmes in Technical and Vocational Education and (iii) To develop strategies for programme design for education and training in technical and vocational domains.



A total of 67 Participants from different countries namely Bangladesh, Botswana, Cambodia, Ethiopia, Ghana, Indonesia, Iraq, Malawi, Myanmar, Nepal, Seychelles, Tanzania, Uganda, Uzbekistan, Vietnam, Zambia and Zimbabwe attended this Seminar, in addition to Indian Delegates.

b) **International seminar on “Technology for Sustainable Development : Focus on Health and Environment”**

The National Institute of Technical Teachers Training and Research (NITTTR), Chennai organized an one day international Seminar on “Technology for Sustainable Development: Focus on Health and Environment” in collaboration with SCAD College of Engineering, Tirunelveli on 17th November 2012. The objectives of the seminar are (i) To review the technological development taken place in promoting sustainable development in developing countries viz., Asia, Africa, Middle East and South America, (ii) To

identify the areas of technical programmes which need modification, improvement and up gradation with respect to clean development,(iii) To suggest ways and means of creating appropriate additional courses in technology for sustainable development in technical education in developing countries and To create sustainable linkages among the developing countries for exchanging innovative technological knowledge in environmental protection and sustainable development. A total of 85 Participants including 20 participants



from different countries namely, Cambodia, Cameroon, Democratic Rep of Congo, Lesotho, Namibia, Nepal, Nigeria, Poland, Sudan Uzbekistan, Vietnam and Zimbabwe participated in this seminar. Prof. Dr. S. Mohan, Director of NITTTR, Chennai inaugurated the seminar and delivered the inaugural address. Prof. Dr. N. Mohamed Sheriff, presided over the function and the course coordinator Dr. G. Janardhanan

delivered the vote of thanks and reported the village visit and stay activities.

c) International seminar on “Sustainable Development to Meet Millennium Development Goals”

The National Institute of Technical Teachers Training and Research (NITTTR), Chennai organized an International Seminar on “Sustainability Education towards Millennium Development Goals” in collaboration with Thiagarajar College Of Engineering, Madurai on 20th November, 2012.

A total 145 participants including 32 International participants from 20 countries (Belarus, Cameroon, Cambodia, Democratic Rep. of Congo, Fiji, Guinea Bissau, Kenya, Laos, Lesotho, Myanmar, Namibia, Nepal, Nigeria, Poland, Sudan, Syria, Uzbekistan, Vietnam, Zambia and Zimbabwe) participated in the International seminar. Prof. Dr. S.



Mohan, Director, NITTTR, Chennai delivered the Keynote address on “Green Engineering towards

Sustainability”. Eminent personalities from different academic institutions / organizations and overseas delegates delivered special invited lectures.

d) International Seminar on ICT for Education and Training in India

A one day International seminar on “ICT for Education and Training in India” was conducted by the institute in collaboration with Colombo Plan Staff College (CPSC) for Technician Education, Manila, Philippines on 21st December 2012 at NITTTR, Chennai.

The Objectives of the seminar were to: update insights for policy makers, technical and vocational education and training (TVET) providers and educators on the latest innovative teaching and learning practices to enhance student development; provide platform for exchange of ideas and experiences on



ICT-pedagogy integration; and facilitate dialogue among key players on the directions towards effective and innovative use of ICT in education.

A total of 102 participants comprising of Engineering and polytechnic College teachers, academicians, managers of

technical and vocational education and training (TVET) institutions and representatives of public and private sectors attended the seminar.

Prof. Dr. A. Kalanidhi, Vice Chairman, Commonwealth Science and Technology & Former Vice-Chancellor, Anna University, Chennai inaugurated the seminar. Prof. Dr. S. Mohan, Director, NITTTR, Chennai, and Dr. Naim Yaakub, Director General, CPSC, Engr. Md. Jahangir Alam, ICT Officer, CPSC, Mr. Felix Sibal, ICT Officer, CPSC Mr. E. Iniya Nehru, Sr. Technical Director, National Informatics Centre, MCIT, Dr. S. Srinivasan, Emeritus Professor, IIT Madras, Chennai, Dr. G. Kulanthaivel, NITTTR, Chennai; Dr. G. Janardhanan, NITTTR, Chennai; Mr. Shivkumar S., Managing Director, Axis-v Creatives Pvt Ltd; and Dr. M.S. Mohammed Sadiq, Sr. Vice President, AEL Data Services LLP, Chennai were served as resource persons of the seminar. Dr. Ajit Kumar Kolar, Chairman, Centre for Continuing Education, IIT Madras, Chennai addressed the Valedictory Function.

e) International Seminar on Knowledge Management for Technical Education

The National Institute of Technical Teachers Training and Research (NITTTR), Chennai organized an



international Seminar on “Knowledge Management for Technical Education” in collaboration with Velammal College of Engineering and Technology, Madurai on January 19th 2013. The Objectives of the seminar were (a) Understand the basic concept and principles underpinning Knowledge Management System (b) Apply knowledge management practices in Technical Education System (c) Design

teaching and learning systems for knowledge management and Develop Knowledge-Based Teaching and Learning System. Around 103 participants including 26 foreign participants from different countries namely Nigeria, Zimbabwe, Fiji islands, Ethiopia, etc.

f) International Seminar on “Spatial Information Technology for Natural Resources Management”

The National Institute of Technical Teachers Training and Research (NITTTR), Chennai organized an International seminar on “Spatial Information Technology for Natural Resources Management” in collaboration with Muthayammal Engineering College, Rasipuram, Namakkal (Dist) on 5th March 2013. The

objectives of this seminar are (a) To understand the importance of SIT (b) To explain the various tools of SIT (c) To Demonstrate Total Station & GPS Instruments (d) To integrate Spatial data in to GIS softwares and (d) To apply SIT in Natural Resource Management. 15 International participants and 35 participants from engineering colleges attended the seminar.



g) International Conference on Role of Women in Science and Technology

An International Conference on “Role of Women in Science and Technology” was jointly organised by NITTTR, Chennai and Sri Krishna College of Technology, Coimbatore on 6th March 2013 at Sri Krishna College of Technology, Coimbatore. The objectives of the seminar were (i) to know the International Women Empowerment Practices, (ii) Develop strategies for strengthening Women participation in Science



and Technology and (iii) Develop strategies for empowering women through technical education. A total of 175 Participants from different countries namely Bangladesh, Ethiopia, Ghana, Indonesia, Iraq, Laos, Mongolia, Myanmar, Sierra Leone, Tanzania, Tobago, Trinidad, Vietnam, Zambia and Zimbabwe attended this Seminar, in addition to Indian

delegates. Papers were presented by Indian and foreign delegates. The conference served as a platform for exchange of ideas on the role of women in developing Science and Technology.

h) International Seminar on “Technology and Development: Impact on Water”

The National Institute of Technical Teachers Training and Research (NITTTR), Chennai organized an International seminar on “Technology and Development: Impact on Water” in collaboration with Sri Aravindar Engineering College, Setharapet, Villupuram District on 2nd March 2013. The objectives of this seminar are (a) To impart the importance of modern water quality testing procedures in developing countries in Asia, Africa, Middle East, Europe and South America; (b) To appreciate the policies and planning strategies involved in water quality related environmental management; (c) To create sustainable linkages among the developing countries for exchanging innovative water quality testing practices in environmental protection and sustainable development of resources and services and (d) To undertake environmental action by individuals, NGOs, Government and Corporate sector by increasing accessibility of

information and communication technology. A total of 85 Participants, including the international participants from different countries namely Iraq, Vietnam, Mongolia, Ethiopia, Indonesia, Laos, Uzbekistan, Mongolia, Sri Lanka, Tanzania, Sierra Leone, Uganda, etc., attended the deliberation. Prof. Dr. S. Mohan, Director of NITTTR, Chennai inaugurated the seminar and delivered the inaugural address.

i) National Workshop on “Reclamation of Mined out Areas to Restore Sustainable Biodiversity”

The National Institute of Technical Teachers Training and Research (NITTTR), Chennai organized a National Workshop on “Reclamation of Mined Out areas to restore sustainable biodiversity”. The main objective of this workshop is to: (a) discuss the concept of land reclamation and alternative land uses; (b) identify challenges associated with land reclamation; (c) develop an integrated approach to address the challenges in land reclamation; (d) suggest ways and means of creating appropriate linkages among the community to explore the economic viable uses of reclaimed land; and (e) create sustainable linkages among the developing countries for exchanging innovative curricula and instructional packages in environmental protection and sustainable development of resources and services. Around 25 participants from Industries viz., Neyveli Lignite Corporation, Tamil Nadu Pollution Control Board etc., attended this workshop in addition to the faculty members from academic institutions.

5.0 CURRICULUM DEVELOPMENT

Curriculum Development Centre of the institute was set up in 1970 for revising curricula of existing programmes and developing curricula for new programmes of polytechnics to meet the ever-changing technical human resource needs of the expanding Indian economy. The institute has evolved, in furtherance of this objective, a curriculum development model which includes job and task analysis for developing technician profiles, identifying technician competency, formulating learning outcomes reflecting the knowledge, skills and attitudes, clustering and sequencing contents and designing suitable evaluation schemes. The relevance and appropriateness of the curricula are ensured by the involvement of polytechnic teachers, industrial representatives and faculty from institutions of higher learning and the officials of the Directorates of Technical Education at all stages of curriculum development. During 2012-13, the curricula of eight overseas trainees programme were revised.

6.0 INSTRUCTIONAL MATERIALS DEVELOPMENT

During 2012-13, the institute updated the 90 course materials in various Engineering subjects, Pedagogy and Management for use by teachers of technical institutions.

7.0 INSTRUCTIONAL MEDIA DEVELOPMENT

Video programmes:

The institute has developed, over the years excellent facilities for the production of Educational Video Programmes in the areas of technical education and teacher training. During the year under report 41 video programmes were produced for teachers and students of technical education institutions.

8.0 PROJECTS RELATED TO RESEARCH & DEVELOPMENT AND EXTENSION & CONSULTANCY SERVICES:

During 2012-13, the following 7 projects sponsored by various agencies were undertaken by the faculty of the Institute:

Table 7: Particulars of Ongoing Research & Development Projects

S. No.	Title of the Project	Sponsoring agency	Coordinators/ Members	Funds allotted
1.	Integrating Persons with Disabilities into the Main stream of Technical and Vocational Education	MHRD	Dr. S. Mohan Dr. S. Reunka Devi	27,00,000
2.	National Faculty Development Centre for Industrially Relevant areas of Technology	AICTE	Dr. S. Mohan Dr. S. Dhanapal	20,00,000
3.	Ground Water Modeling Study for the Multi-Layer Coastal Aquifer System of Neyveli Hydro-Geological Basin	NLC Ltd., Neyveli	Dr. S. Mohan Er. K. S. A. Dinesh Kumar	25,00,000
4.	Preparation of Social Economic Survey, Identity Capture, Slum MIS, Topographical Survey, GIS Based Slum Mapping in Tirunelveli Region Under RAY	TNSCB, Chennai.	Dr. S. Mohan Dr. G. Janardhanan Er. K. S. A. Dinesh Kumar	25,00,000
5.	Preparation of Social Economic Survey, Identity Capture, Slum MIS, Topographical Survey, GIS Based Slum Mapping in Trichy Region Under RAY	TNSCB, Chennai	Dr. S. Mohan Dr. E.S. M. Suresh Er. V. Shanmuganeethi	30,00,000
6.	Preparation of Social Economic Survey, Identity Capture, Slum MIS, Topographical Survey, GIS based Slum Mapping Coimbatore Region under RAY	TNSCB, Chennai	Dr. S. Mohan Er. K. S. A. Dinesh Kumar Dr. R. Ravichandran	80,00,000
7.	Design Check and monitoring Cell II Phase II Landfills at Gummidipoondi	TNWML Chennai	Dr. S. Mohan Dr. G. Janardhanan	4,00,000
TOTAL				2,11,00,000

Table 8: Particulars of Completed Research & Development Projects

S. No.	Title of the Project	Sponsoring agency	Coordinators/ Members	Funds allotted
1.	Establishment of Rain water Harvesting unit in the institute's campus	CGWB	Civil Department	40,00,000
2.	Establishing e-Training Environment for Training Technical Teachers & Students	NME-ICT MHRD, GoI	Dr. S. Mohan Dr. V. P. Sivhakumaar Dr. G. Kulanthaivel	28,00,000
3.	Production of Video film on "South Indian Foods"	NIMI, Chennai	Dr. S. Mohan Dr. E. S. M. Suresh	1,00,000
4.	DVD Preparation of Digitized Old Tamil Manuscripts	CICT, Chennai.	Dr. S. Mohan Dr. V. P. Sivhakumaar	12,00,000
5.	Enriching Content with Multimedia for Web Delivery for CICT"	CICT, Chennai.	Dr. S. Mohan Dr. V. P. Sivhakumaar Dr. G. Janardhanan	11,00,000
6.	Development of Web Portal for CICT	CICT, Chennai.	Dr. S. Mohan Dr. G. Kulanthaivel	12,00,000
7.	Macro level ground water flow modelling of NLC mines area & its expansion	RWE. Germany	Dr. S. Mohan Er. K. S. A. Dinesh Kumar	9,00,000
8.	Training Need Analysis - Induction Training Programme to Newly Recruited to Highways Engineers, Highways Department, Govt. of Tamil Nadu	TNRSP Chennai	Dr. S. Mohan Dr. G. Janardhanan Er. K. S. A. Dinesh Kumar	23,72,000
9.	TNSCB – Pillayarpaty Ph. II Computation of Volume of filling earth	TNSCB Tiruchy	Dr. S. Mohan Dr. G. Janardhanan Er. K. S. A. Dinesh Kumar	1,00,000
10.	End Term Impact Evaluation of Resettlement and Rehabilitation Implementation for Milestones Nos. I, II, III and IV and ongoing road works under TNRSP Projects	TNRSP Chennai	Dr. S. Mohan Dr. V. K. Natarajan	16,54,500
11.	Road User Satisfaction Survey – III	TNRSP Chennai	Dr. S. Mohan Dr. G. Janardhanan Er. K. S. A. Dinesh Kumar	33,10,000
TOTAL				1,87,36,500

9.0 NATIONAL SKILL DEVELOPMENT PROGRAMME

Rationale

The continued growth of the Indian Economy requires a large number of skilled workforce across a variety of sectors of economy including manufacturing, construction and service. The skill shortage is evident in every sector of the economy. The National Skill Development Mission aims at creating a pool of trained and skilled workforce, sufficient to meet the domestic requirements of a rapidly growing economy, with surpluses to cater to the skill deficits in other ageing economies so that India can effectively leverage its competitive advantage and harness the demographic dividend.

The Govt. of India has ambitious plans for providing skill training for about 10 million youth every year and has identified about 21 priority areas through a process of extensive survey and prioritisation. The Ministry of Human Resource Development has taken up a major role in imparting the skill development at various levels involving formal and non-formal education and training institutions.

India has over 350 million young people in the age of 15 to 35 years. At present, the country has the capacity to train only about 2% of its youth through formal vocational training, and another 8% through non-formal vocational training.

The AICTE has developed a National Vocational Education Qualification Framework (NVEQF). Under this framework, the following aspects are addressed:

- Definition of qualification at different constituent levels.
- Strengthening of vocational education in the school system
- Providing vertical progression opportunities for vocational school passouts
- Multipoint entry and exit options for enabling movement between job and learning

As part of the initiative of the Ministry of Human Resource Development of Govt. of India, the institute has taken up the following activities towards the National Skill Development Programme.

- Develop curricula and training modules involving experts from industry and training institutes.
- Organise Training of Trainers programmes for identified master trainers.
- Strive to establish Centre of Excellence with state of art equipment for Training of Trainers.
- Contribute to the Curriculum and instructional material for implementing NVEQF compliant training programmes.
- Plan a strategy for a scheme of Credit Accumulation for training modules leading to award of Diploma or Certificate.

As the first step, the process of identifying and prioritising the training needs and trades for which curricula are to be developed has been completed.

The curricula for a total 76 trades, the following five sectors have been developed so far:

Name of the Sectors

- i) Textiles and Clothing
- ii) Health Care Services
- iii) Electronics and IT Hardware

- iv) Leather & Leather Goods
- v) Auto / Auto Ancillary

The validation of the curricula developed through review by experts from industry and higher academic institutions are currently being carried out. Preparation of Trainers Manual and Learners Manual for some of the identified trades are being undertaken.

10.0 SCHEME OF COMMUNITY DEVELOPMENT THROUGH POLYTECHNICS:

As a Direct Central Assistance Scheme, the CDTP scheme sponsored by MHRD, Govt. of India, New Delhi in February 2009 is being implemented in 205* polytechnics in the Southern Region as on date.

The number of polytechnics in each state implementing the Scheme of CDTP are presented in the following table:

Andhra Pradesh	Karnataka	Kerala	Tamil Nadu	Puducherry	Total
47	55	31	56	1	190 **

[* Administrative sanction was given to 205; ** Financial sanction given only to 190 Polytechnics]

The Scheme aims to uplift the rural youth, the school dropouts, the poor, the downtrodden, etc.

Activities:

The major areas of activities under the scheme are:

- Socio-Economic Survey
- Skill Development Training Programmes
- Dissemination and Application of Appropriate Technologies
- Technical and Support Services
- Awareness Programmes

Role of NITTTR:

To enable the project personnel associated with the implementation of the Scheme in their respective polytechnics, the Centre for Sustainable Development (CSD) of the institute serves as a Resource Centre. It conducts Orientation Training Programmes, Statewise workshops, Annual Review of the Scheme and other subject related short courses regularly. Besides, the CSD assists the MHRD in scrutinisation and preparation of various progress Reports and the Expenditure related matters.

During the Year 2012-13, the Operational Plan Proposals for the Scheme of CDTP submitted by the Polytechnics in the Southern Region were scrutinized and approved. Also the Utilisation Certificates

(UC's), Statement of Accounts (SOA's) and the Physical Achievement Reports (PAR) submitted by the polytechnics for the year 2011-12 were scrutinized and forwarded to the Ministry.

Besides, the Expenditure details and the Annual Report (AR) relating to each of the Polytechnic in the region for the year 2011-12 were prepared and submitted to the Ministry.

Attended a Meeting at MHRD, New Delhi on 04 January 2013 along with the Directors of Technical Education of the State Governments, to evaluate and recommend the new proposals for implementing the Scheme of CDTP.

11.0 INTEGRATING PERSONS WITH DISABILITIES INTO THE MAIN STREAM OF TECHNICAL AND VOCATIONAL EDUCATION

In accordance with the Persons with Disabilities Act – 1995 and the National Policy of Education (1986) the Ministry of Human Resource Development, Govt. of India has launched a Centrally Sponsored Scheme for upgrading selected polytechnics in the country to integrate Persons with Disabilities (PWDs) into the main stream of technical and vocational education.

Objectives of the Scheme:

- Promoting education and training of PWDs in the main stream of technical and vocational education and skill development programmes through formal and non- formal programmes.
- Identifying PWDs in the suitable geographic catchments of the polytechnics.
- Identifying suitable education and training programmes for PWDs with special emphasis on non formal skill development programmes for illiterate youth with disabilities, for promoting wage or self employment as far as possible at their place or residence.
- Designing need and competency based curricula for PWDs
- Preparing / procuring / developing suitable resources, including physical, human and informational, for effective implementation of the programme.
- Developing norms and standards for different phases of the Scheme, wherever needed.
- Networking and collaborating with resource institutions and other organizations and take their assistance for manpower training, guidance and effective implementation of the scheme.
- Sensitizing administrators, planners, faculty, staff and students and community at large about the problems and capabilities of the students with disabilities and to create suitable environment in the polytechnics.

- Developing innovative educational technologies and approaches for education, training and rehabilitation of youth with disabilities.
- Strengthening the existing placement cells of polytechnics to help for providing guidance and counseling and placement of youth with disabilities for wage and self employment opportunities.
- Evolving suitable methods and practices for monitoring the scheme.

Polytechnics in the Southern region implementing the Scheme:

- Dr. Dharmambal Govt. Polytechnic College for Women, Chennai
- Government Polytechnic College for Women, Coimbatore
- Arasan Ganesan Polytechnic College, Sivakasi
- Women’s Polytechnic, Lawspet, Pondicherry
- Government Polytechnic, Kottayam
- Sree Rama Government Polytechnic, Thriprayar
- Smt. LV Government Polytechnic, Hassan
- Government Polytechnic for Women, Mangalore
- Government Polytechnic, Belgaum

Achievements:

The particulars of Persons with Disabilities admitted/trained during the year 2012 - 13 are given below:

PWD STUDENTS TRAINED	
FORMAL DIPLOMA PROGRAMMES (Admitted)	NON- FORMAL COURSES (Trained)
40	253

The Non-Formal courses were conducted in the following areas:

- Data Entry Operator
- Desk Top Publishing
- Office Automation
- Tailoring and Dress Making
- Embroidery
- Chair Knitting
- Coir Knitting
- Basic Computer Skills

NITTTR, Chennai assisted the Polytechnics in preparing the action plans. The implementation of the scheme was monitored through constant interaction as well as through participation in advisory committees.

12.0 VIRTUAL NITTTR:

Offering teacher training programmes through Virtual mode is a priority area of the institute. The institute continues to exploit the potential of ICT and computer-network compatibility to provide the benefits of e-learning. In order to cater to a large number of technical teachers the institute is working with the concept of Virtual NITTTR to offer training programmes on-line. The Department of Educational Technology & Multimedia (ET&MM) of the institute has taken up, on mission mode, a variety of initiatives for developing digital resources in the form of Self-Learning Packages (SLPs), Multimedia Learning Packages (MMLPs) and Computer Based Tutorials (CBTs).

Objectives:

The main Objective of Virtual NITTTR is to provide quality training to technical teachers through online virtual mode and in turn make students learn effectively through trained teachers.

The enabling objectives are:

- To design and develop e-learning environment, which exploits the capabilities of the Internet and multimedia to provide on-line learning opportunities to technical teachers.
- To provide continuous learning opportunities to technical teachers by extending training from centralised training institutions into the teacher trainee's own working environment.
- To train a large number of technical teachers in pedagogical competencies, classroom management, guidance and counselling and content related areas.
- To provide e-learning opportunities to students from rural and backward areas as well within a reasonable period of time.
- To facilitate technical institutions encourage teachers to utilize training opportunities through e-learning environment in the present day situation of shortage of faculty.
- To provide e-learning resources in engineering courses to students studying in engineering colleges and polytechnics.
- To offer on-line programmes for community and for teachers and educational administrators from overseas countries.

Outcomes of the Project

The e-Content development caters to knowledge creation and dissemination which supports the core objective of the mission. The following are the outcomes accomplished:

- Providing life-long learning to technical teachers, students and society and also provide the potential for education to be moved out of centralized educational institutions into the teachers' / students' door steps.
- Covering a large population; distance and time factors are being eliminated gradually if not immediately and completely.
- The problem of deputing teachers for external training programmes get minimized.
- Providing learning opportunities with quality content in the present day situation of shortage of faculty in the technical institutions.
- Minimizing the digital divide.

Web-based Courses/ Webcasting is planned to be organised during the next year to offer training to a larger population of Technical Teachers. Technical Institutions with suitable infrastructure facilities are being identified for serving as nodal centres for Webcasting.

13.0 IMPLEMENTATION OF THE e-GOVERNANCE

The Institute is in the process of developing an e-Governance Application covering the Academic, Accounting, Purchase and Administrative processes of the Institute. The e-Governance application is aimed to help improving the productivity and accessibility of these processes. The Institute prepared a Request For Proposal (RFP) document outlining the scope and requirement of e-Governance application to be developed. Open Tender was initiated and technical and commercial bids were submitted by the vendors in April 2011. As an outcome of the Open Tender Process the firm HTC Global Services Pvt. Ltd., Chennai has been selected as the vendor for the development of the e-Governance application.

A Service Level Agreement (SLA) has been signed between NITTTTR, Chennai and HTC Global Services Pvt. Ltd., Chennai on 24.11.2010. The agreement involves development of e-Governance based automation for the functional requirement of (i) Academic Processing System, (ii) Finance, Purchase, Inventory and Assets Management and (iii) Payroll & Human Resource Management System and (iv) Hostel and Guest House Management.

The vendor has developed the pilot study of the application which has been installed. The review of the features and validity of the following five modules are been carried out by the e-governance group and actual staff connected with the operation.

Academic Module	HRMS and Payroll
Purchase and Stores	File Movement System
Finance.	

The corrections indicated by the reviewers are being implemented by the vendor. It is expected that the e-governance will be in full operation from May 2014.

14.0 IMPLEMENTATION OF THE USE OF HINDI LANGUAGE

To promote the use of Hindi in the Institute as envisaged by the Official Language Implementation Committee, a number of activities are being implemented. During the year the following activities were conducted:

1. A one day Hindi workshop on “OL Policy, Implementation & Spoken Hindi” was organized by Hindi Cell of our Institute on 01/06/2012. 25 participants are attended this Hindi Workshop.
2. On 07/09/2012 a Painting, Elocution & Essay Competition in Hindi on “Information Technology (I.T.) for India : Boon or Bane” for School Children’s in and around Chennai was invited. Around 6 Schools and 79 students are participated and the prizes for the winners awarded on (Hindi Day) the occasion of celebration held on 14/09/2012.
3. A one day Hindi workshop on “O.L. Past, Present & Future” was organized by Hindi Cell of our Institute

on 10/09/2012. 22 participants are attended this Hindi Workshop.

4. A one day Hindi workshop on “O.L. Policy & Official Hindi Sentence Structure” was organized by Hindi Cell of our Institute on 29/11/2012. 27 participants are attended this Hindi Workshop.



5. A one day Hindi workshop on “Simple Hindi Sentence Conversational Hindi and Situational Hindi” was organized by Hindi Cell of our Institute on 30/01/2013. 24 participants are attended this Hindi Workshop.
6. Hindi Pakhwada was celebrated in the Institute between 5th to 7th of September, 2012 and Hindi Day was celebrated on 14th September, 2012. Various Competitions in Hindi – Essay Writing, Copying a given paragraph in Neat Handwriting (for Group ‘D’), Hindi Anthakshari & Hindi Debate (Topic : Which is more important : Education or Money) - were conducted for the staff and trainees of the Institute. Dr. P. Shanmugam, M.S., M.Sc., Ph.D., Principal Scientist & Commonwealth Fellow (U.K.), Environmental Engineering Department, CSIR-Central Leather Research Institute, Adyar, Chennai-20 - was the Chief Guest of the Function.

15.0 INTER NITTTR SPORTS MEET

Participation in sports and culture would promote fraternity among the NITTTRs at all levels leading to development of desired team spirit and synergy required for holistic development of the NITTTR system. To achieve this aim, Inter NITTTR Sports Meet is being conducted since 2005, every year by rotation at Chandigarh, Bhopal, Kolkata and Chennai. So far we have successfully conducted eight Sports meets.



The Ninth inter NITTTR Sports Meet – 2013 was held at NITTTR, Chandigarh from 19th to 22nd February 2013. A total of 17 participants from our institute participated in this sports meet. NITTTR, Chandigarh won the Championship trophy.

16.0 FACULTY NEWS

Most of the Faculty members of the institute have served as members of various expert committees constituted by AICTE, MHRD, ISTE, Directorates of Technical Education, Universities and Autonomous Colleges.

Training and Development programmes attended:

1. Dr. G. Janardhanan and Dr. R. Ravichandran attended the First National Knowledge Network Annual Workshop “The e-infrastructure of India” from 31st October to 2nd November, 2012 at IIT Mumbai.
2. Shri. KSA Dinesh Kumar attended training programme on Waterproofing organized by IIT Madras and Indian Concrete Institute (ICI), Chennai from 17th to 19th Jan 2013 at IIT, Madras, Chennai.
3. Dr. E.S. M. Suresh, Dr. G. Janardhanan and Er. K.S. A. Dinesh Kumar attended the workshop “R&D session of Indian National Committee on Ground Water” on 07th February 2013 at CGWB, Chennai.
4. Dr. S. Renuka Devi participated in Master Trainers programme on “Gender Budgeting” from 4th to 6th February 2013 at NIRD, Jaipur.
5. Dr. E.S.M. Suresh, Shri. Philip Kurian, Dr. R. Santhakumar, Shri.M.Senthilkumar and Shri. V. Shanmuganeethi, attended training programme on Quality Management Standards and Quality Technology Tools Organised by Quality Council of India, New Delhi from 11th to 15th March 2013 at NITTTR, Chandigarh.
6. Dr. S. Dhanasekaran, Dr. G. Kulanthaivel, Dr. G. Janardhanan, Dr. S. Somasundaram, Shri K.S.A. Dinesh Kumar, Shri A.P. Felix Arokiyaraj attended Training Programme on Quality Management Standards and Quality Tools from 18.03.2013 to 22.03.2013 Organised by Quality Council of India, New Delhi at NITTTR, Chennai.

Professional Assignment:

1. Dr. S. Dhanapal participated as a member in the subcommittee “Curriculum Development and Teacher Training” of India-EU Skill Development Project, Ministry of Labour and Employment, New Delhi.
2. Dr. G. Janardhanan participated as a member in the subcommittee “Quality Assurance Working Group” of India-EU Skill Development Project, Ministry of Labour and Employment, New Delhi.
3. Dr. S. Dhanapal, Dr. G. Kulanthaivel and Dr. G. Janardhanan acted as members in the sub mission of ministry advisory committee on “Strengthening of existing Polytechnics” in scrutinizing the project proposal from 165 polytechnics.
4. Dr. S. Dhanapal and Dr. G. Janardhanan participated as members in the meeting on “Quality Management Tools/ Quality Technology tools for polytechnic teachers” at Quality Council of India, New Delhi in finalizing the modality for training the master trainers programme.
5. Dr. G. Janardhanan acted as a member in the Purchase Committee of “Dr. Dharamambal Government Polytechnic College for Women” Tharamani, Chennai.

Papers Presented in Conferences:

1. Renukadevi, S.(2012, June). “Technical Teacher’s Perception of Adolescent Technical Students in Engineering Institutions”. Paper Presented in the 47th National and 16th International Conference of Indian Academy of Applied Psychology held at Toc H Institute of Science and Technology, Kerala from 15-17th June 2012.

2. Renukadevi, S. and Ramya, J.S. (2012, June). "A Study on the QWL (QWL) of Management Executives in an Automobile industry". Paper Presented in the 47th National and 16th International Conference of Indian Academy of Applied Psychology held at Toc H Institute of Science and Technology, Kerala from 15-17th June 2012.

Papers published in Journals:

1. Suresh, E.S.M. & Purushothaman, P. (2012). A Study on issues relating to training of Construction workers in India. TARCE, Vol1, No 1, pp 54 – 66.
2. Suresh, E.S.M. & Shimi Lawrence. (2012). The Need for Integration of Disaster Management into Engineering Curriculum. International Journal of Modern Engineering Research, Vol.2, Issue 6, pp 4524 – 4526.
3. Suresh, E.S.M. & Hemabala, J.(2012). The Framework Design of Mobile Learning Management System. International Journal of Computer and Information Technology Vol. 1, Issue 2, pp 179 – 184.
4. Rajendran, R. & Shri. Joe Vasanth, B. (2012). A study on the Professional Development among the Faculty of Mathematics in Engineering Colleges. Asian Journal of Research in Social Sciences & Humanities, Vol.2, Issue 4, pp 10 – 13.
5. Shanmughanethi, V., Ramesh, P. & Swamynathan, S. (2012). Preventing Client Side Attack in Web Applications through Web Services. International Journal of Soft Computing, Vol. 7, No. 4, pp. 181 – 190.
6. Malliga, P.(2012). Database Services for cloud computing – An overview. International Journal of Computers and Technology, Vol. 2, Issue 3, pp 67– 70.

Awards Won:

- Prof. Dr. S. Mohan was conferred "**IAAP-PPA BEST EDUCATIONIST AWARD 2012**" by the Pondicherry Psychology Association, Puducherry.
- Dr. S. Renuka Devi was conferred "**BEST TEACHER AWARD 2012**" by the Pondicherry Psychology Association, Puducherry

The faculty of the Institute served as resource persons for Development of Curricula by the Autonomous Polytechnics and Engineering Colleges in the Southern states in addition to their professional assistance to AICTE, ISTE, MHRD, DOTEs, Deemed Universities and Autonomous Engineering Colleges and Polytechnics either as members of Expert Committees or as Resource persons for workshops.

17.0 ACKNOWLEDGEMENTS:

The institute would like to place on record its deep sense of appreciation and gratitude to:

- the Government of India, Ministry of Human Resource Development (Department of Secondary Education & Higher Education) for its continued support to all its programmes and activities;
- the Board of Governors and its sub-committees for their contribution to the Governance of the institute;
- the State Governments of Andhra Pradesh, Karnataka, Kerala and Tamil Nadu and Union Territory of Puducherry for their continued cooperation by deputing teachers for various programmes and activities of the institute;
- Industries and their managements for their cooperation and assistance in conducting various programmes effectively;
- the faculty and staff of the institute for their hard work and dedication in making the reporting year an eventful one;
- the Press, All India Radio, Doordarshan for publicity and support for the institute's programmes and activities.

18.0 BOARD AND SUBCOMMITTEES

The composition of the Board of Governors, Finance Committee and the various committees of the Board are given in Appendices (i), (ii) and (iii) of this report.

APPENDICES

Appendix I

NITTR CHENNAI SOCIETY AND BOARD OF GOVERNORS

(As on 31.03.2013)

Chairman

Dr. S.R. K. Prasad

Chairman & Managing Director
Krishna Industrial Corporation Ltd,
R/O 8, 9, 10 Rajeswary Nagar,
Sowripalayam, Coimbatore – 641 028 T.N.

Member-Secretary

Prof. Dr. S. Mohan

Director
National Institute of Technical Teachers Training and Research
Taramani, Chennai-600 113

MEMBERS

Nominee of the
Department of Education and Finance,
Govt. of India

Additional Secretary (TEL)

Department of Higher Education
Ministry of Human Resource Development
Government of India
Shastri Bhavan
New Delhi - 110 001

Financial Adviser (HRD)

Integrated Finance Division
Ministry of Human Resource Development
Department of Higher Education
Government of India
Shastri Bhavan, New Delhi – 110 001

Five Directors of Technical
Education

1. **Commissioner of Technical Education**
Directorate of Technical Education
Government of Tamil Nadu
Chennai-600 025
2. **Director**
Directorate of Technical Education
Government of Andhra Pradesh
5th & 6th floors, B.R.K.R. Bhavan
Tank bound Road, Hyderabad – 500 063

3. **Director**
Directorate of Technical Education
Government of Kerala
Trivandrum, Kerala – 695 023

4. **Director**
Directorate of Technical Education
Government of Maharashtra
3, Mahapalika Marg,
Mumbai – 400 001
Maharashtra State

5. **Director**
Directorate of Technical Education
Government of Odisha
Killa Maidan, Buxi Bazar,
Cuttack – 753 001, Odisha State

Representative of the AICTE

Dr.Kuncheria P. Isaac
Member Secretary
All India Council for Technical Education
7th Floor, Chanderlok Building,
Janpath, New Delhi 110 001

Representative of the University

Vice Chancellor, Anna University, Chennai – 600 025

Two Industrialist / Technical
Professional nominated by MHRD

1. **Shri.Karumuthu T. Kannan**
Managing Director
Thiagarajar Mills (P) Ltd
Madurai – 625 008

2. **Dr. S. S. Varaprasad**
Chairman
Anurag Group of Engineering Colleges
Venkatapur (V), Ghatkesar – 501 301
R.R. District (A.P)

Faculty Representative

Dr. E.S.M. Suresh (From 07.11.2012)
Professor & Head
Department of Civil Engineering
NITTTR, Chennai – 600 113

FINANCE COMMITTEE

Chairman

Dr. S.R. K. Prasad

Chairman & Managing Director
Krishna Industrial Corporation Ltd,
R/O 8, 9, 10 Rajeswary
Nagar, Sowripalayam
Coimbatore – 641 028 T.N.

Members

Additional Secretary (TEL)

Department of Higher Education
Ministry of Human Resource Development
Government of India
Shastri Bhavan
New Delhi - 110 001

Financial Adviser (HRD)

Integrated Finance Division
Ministry of Human Resource Development
Department of Higher Education
Government of India
Shastri Bhavan, New Delhi – 110 001

Commissioner of Technical Education

Directorate of Technical Education
Government of Tamil Nadu
Guindy, Chennai-600 025

Member-Secretary

Prof. Dr. S. Mohan

Director
National Institute of
Technical Teachers Training and Research
Taramani, Chennai-600 113

SUB COMMITTEES OF THE BOARD

**1. STAFF SELECTION COMMITTEE
[As per AICTE Norms]**

Members

Chairman
Board of Governors
NITTTR, Chennai – 600 113

Director
NITTTR, Chennai – 600 113

Head of the Department in the rank of Professor
NITTTR, Chennai – 600 113

Nominee of AICTE in the rank of Professor

Two subject Experts

2. BUILDINGS COMMITTEE

Chairman

Commissioner of Technical Education
Directorate of Technical Education
Government of Tamil Nadu
Guindy, Chennai-600 025

Members

Superintending Engineer
Central PWD
Chennai – 600 006

Superintending Engineer
(Technical Education Division)
Public Works Department
Government of Tamil Nadu
Sardar Patel Road,
Chennai-600 025

Member / Secretary

Director
NITTTR, Chennai – 600 113

3. DEPARTMENTAL PROMOTION COMMITTEE

Chairman

Dr. S. Dhanapal
Professor and Head
Curriculum Development Centre
NITTTR Chennai -600113.

Members

Shri. A. Ayyakannu
Director
Board of Apprenticeship Training
CIT Campus, Taramani, Chennai - 113

Shri. K. Kumarappan
Assistant Register
I.I.T. Madras, Chennai-600025

Shri. V. Veerasamy
Consultant (Admin)
NITTTR,
Chennai – 600 113

Dr. G. Janardhanan
Associate Professor,
Department of CEM
NITTTR, Chennai – 600 113

1. ACADEMIC COUNCIL

Chairman

Director
National Institute of
Technical Teachers Training and Research
Taramani, Chennai-600 113

Members

All Professors / Heads of Departments

Two Associate Professors

Two Assistant Professors

Two Eminent persons from the field of Technical education and
Two from Industries

2. BOARD OF STUDIES FOR OVERSEAS TRAINEE'S COURSE

- | | | |
|--------------------------|---|-----------------------------|
| 1. Prof. Dr. S. Mohan | - | Chairman |
| 2. Dr. S. Dhanapal | - | Member |
| 3. Dr. V.K. Natarajan | - | Member |
| 4. Dr. G. Janardhanan | - | Member |
| 5. Dr. G. Kulanthaivel | - | Convenor (Upto June, 2012) |
| 6. Dr. T. Jagatharakshan | - | Convenor (From June, 2012) |

3. BOARD OF STUDIES FOR M.TECH. (HRD) PROGRAMME

- | | | | |
|----|------------------------|---|----------|
| 1. | Prof. Dr. S. Mohan | - | Chairman |
| 2. | Dr. S. Dhanapal | - | Member |
| 3. | Dr. G. Kulanthaivel | - | Member |
| 4. | Dr. S. Renukadevi | - | Member |
| 5. | Dr. G. Janardhanam | - | Member |
| 6. | Shri V. Shanmuganeethi | - | Member |

4. BOARD OF STUDIES FOR DOCTORAL PROGRAMME (Research Studies)

- | | | |
|----|---------------------|----------|
| 1. | Prof. Dr. S. Mohan | Chairman |
| 2. | Dr. P. Arunkumar | Member |
| 3. | Dr. S. Dhanasekaran | Member |
| 4. | Dr. S. Dhanapal | Member |
| 5. | Dr. E.S.M. Suresh | Member |
| 6. | Dr. S. Renuka Devi | Member |
| 7. | Dr. R. Rajendran | Member |
| 8. | Dr. G. Janardhanan | Member |

GRIEVANCE REDRESSAL COMMITTEE

Dr. V.K. Natarajan Professor & Head, Centre for Rural Development	Chairman
Dr. T. Jagathrakshkan Professor & Head i/c Centre for International Affairs (CIA)	Member
Dr. G. Kulanthaivel Professor & Head i/c Educational Media Centre	Member
Dr. Rathy Ananth, Assistant Professor Department of Electrical Engineering	Member
Shri. V. Veerasamy Consultant (Admin)	Special Invitee

PUBLIC INFORMATION OFFICER

Dr. G. Kulanthaivel
Professor & Head i/c
Educational Media Centre

**COMMITTEE FOR PREVENTION OF SEXUAL HARASSMENT
OF WOMAN AT WORK PLACE**

Dr. S. Renukadevi
Professor & Head i/c of Education

Chairperson

Dr. S. Dhanapal
Professor of Curriculum Development

Member

Smt. R. Vanajakumari
Senior P. A to Director

Member

PARTICULARS OF COMMITTEE MEETINGS

	No.	
Board of Governors	25 th	13.09.2012
	26 th	22.02.2013
NITTTR Chennai Society	9 th	13.09.2013
Finance Committee	24 th	13.09.2012
	25 th	22.02.2013
DPC	38 th	04.01.2013

LIST OF FACULTY AND STAFF

DIRECTOR	Prof. Dr. S. Mohan, M.E., Ph.D., F.N.A.E.,
Centre for Environmental Management	Prof. Dr. S. Mohan, M.E., Ph.D., F.N.A.E., Director & Head
	Dr. G. Janardhanan, M.E., Ph.D. (USA) Associate Professor
Centre for Sustainable Development	Dr. V.K. Natarajan, M.A., M.A., Ph.D., Professor
Centre for International Affairs	Dr. T. Jagathrakshakan, B.E (Hons.), M.E., Ph.D., Professor of Civil Engineering and Head i/c CIA
Civil Engineering	Dr. E.S.M. Suresh, B.E., M.E., Ph.D., Professor of Civil Engineering and Head
	Dr. R. Santhakumar, M.E., Ph.D. Associate Professor in Engineering
	Shri. K.S.A. Dinesh Kumar, M.E., Assistant Professor
Computer Centre	Dr. T.G. Sambanthan, M.E., Ph.D., PGDPM EDP Manager
	Dr. P. Malliga, B.E., M.S., Sr. System Analyst
	Shri. V.Shanmughaneethi, M.E., Assistant Professor
Curriculum Development Centre	Dr. S. Dhanapal, B.E., M.Sc. (Engg.) Ph.D. Professor
	Shri. D.V. Suryanarayana, B.E., Programmer
Education	Dr. S. Renukadevi, B.Sc, MCA, M.Phil., Ph.D., Professor of Education and Head i/c

	Dr. R. Rajendran, M.Ed., M.B.A., Ph.D., Associate Professor
	Dr. K.S. Giridharan, B.E., M.Tech., Ph.D. Assistant Professor
Educational Media Centre	Dr. R. Theagarajan, M.E., M.Sc. (I.T., UK), Ph.D. Professor
Educational Technology & Multimedia	Dr.V. P. Sivhakumaar, M.E., PGDHE., Ph.D., Professor (Up to 31.08.2012)
	Dr. E.S.M. Suresh, B.E., M.E., Ph.D., Professor of Civil Engineering and Head i/c (From 31.08.2012)
	Shri A. P. Felix Arokiya Raj, B.Sc., M.Sc.,D.F.Tech., Assistant Professor
Electrical Engineering	Dr. G.A. Rathy, M.E., PGDCA ., Ph.D., Assistant Professor
Electronics Engineering	Dr. S. Dhanasekaran, B.E., M.Sc. (Engg.), Ph.D. Professor
	Dr. G. Kulanthaivel, M.E., PGDCA., Ph.D. Professor of Educational Media Centre and Head i/c
	Shri. P. Sivasankar, M.E., Assistant Professor
Extension Centre, Bangalore	Dr. P. Arunkumar, M.Sc., M.Ed., Ph.D. Professor
	Shri. V. Sivakumar, M.E. Assistant Professor
	Shri M. Senthilkumar, B.E., M.Tech., Assistant Professor (Up to 15.01.2013)
Extension Centre, Hyderabad	Dr. C.R. Nagendra Rao, B.Tech.Ed., M.Tech., PGDTCA, Ph.D., Professor
	Shri. U.S. Sahu, B.E., M.Tech., Associate Professor
Extension Centre, Kalamassery	Dr.V. Syam Prakash, M.E., Ph.D., Professor (on Deputation – Up to 10.01.2013)

Shri. Philip Kurian, M.Sc. (Engg.)
Associate Professor

Mechanical Engineering

Dr. S. Somasundaram, M.E., Ph.D.,
Assistant Professor

Shri. M. Senthil kumar, B.E., M.Tech.,
Assistant Professor (From 16.01.2013)

**Policy Planning &
Educational Research**

Shri. S. Rajasekar, B.E. M.Tech (HRD)
Research Assistant in Education

Resource Centre

Dr. R. Ravichandran, M.Sc., M.LIS., M.Ed., M.B.A., Ph.D.,
Sr. Librarian

HOSTEL

Warden

Prof. Dr. S. Mohan
Director

Deputy Warden

Dr. E.S.M. Suresh
Professor
Department of Civil Engineering

Assistant Warden

Dr. P. Malliga,
Sr, System Analyst
Computer Centre

Dr. R. Ravichandran
Sr. Librarian
Resource Centre

Medical Officer (Part-time)

Dr. J.S.N. Murthy, M.D. (Medicine)
DNB (Cardiology)