

1 Introduction

In order to meet the long term demand for establishing more Indian Institutes of Technology to provide advancement of learning and dissemination of knowledge and to provide for instructions and research in branches of engineering, technology, management, education, sciences, the Government of India (GOI) upgraded (2002-2006) 20 existing Regional Engineering Colleges (RECs) in the country to be institutions of national importance. These RECs which were established between 1956 and 1987 (except REC Patna established in 1886), after their up-gradation, were re-named as National Institutes of Technology¹ (NITs). Subsequently, after enactment of NITs Act 2007 (Act), these institutes started functioning in accordance with the provisions of the Act.

The main objectives of the NITs as per the Act are as follows:-

- to provide for instructions and research for the advancement of learning and dissemination of knowledge in such branches of engineering and technology, management, education, sciences and arts, as the Institute may think fit;
- to establish, maintain and manage halls and hostels for the residence of students;
- to institute academic and other posts with the prior approval of the Central Government, and to make appointments thereto;
- to deal with any property belonging to or vested in the Institute in such manner as the Institute may deem fit for advancing the objects of the Institute;
- to cooperate with educational or other institutions in any part of the world having objects wholly or partially similar to those of the Institutes by exchange of teachers and scholars and generally in such manner as may be conducive to their common objects;
- to undertake consultancy in the areas or disciplines relating to the Institute etc.

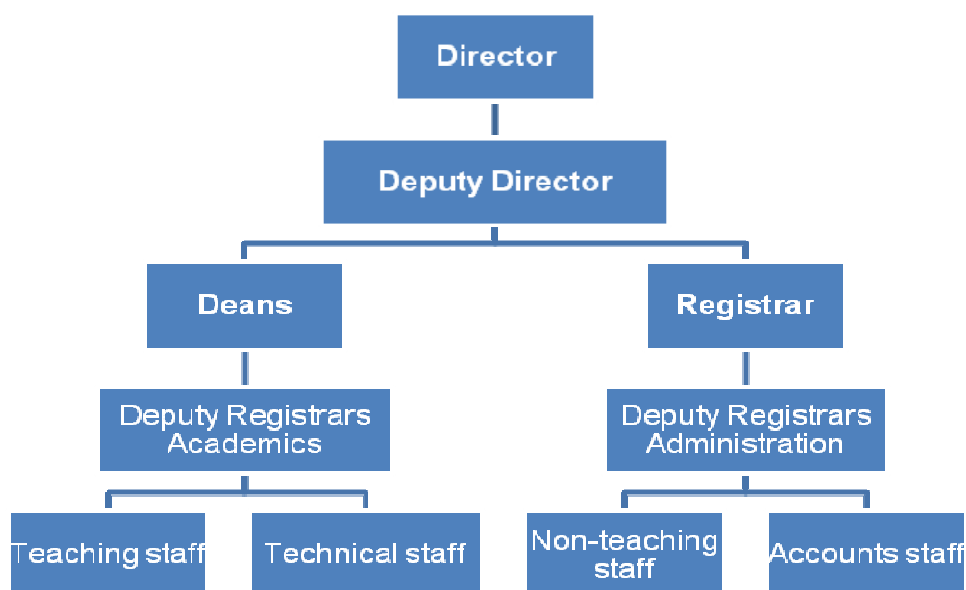
1.1 Organizational set up

A central body called ‘the Council’ is a supreme governing body to perform the functions mainly (i) advise on academic matters, (ii) laying down recruitment policy and (iii) examining overall development plans of the NITs

¹ Agartala (Tripura), Allahabad (Uttar Pradesh), Bhopal (Madhya Pradesh), Calicut (Kerala), Durgapur (West Bengal), Hamirpur (Himachal Pradesh), Jaipur (Rajasthan), Jalandhar (Punjab), Jamshedpur (Jharkhand), Kurukshetra (Haryana), Nagpur (Maharashtra), Patna (Bihar), Raipur (Chhatisgarh), Rourkela (Orissa), Silchar (Assam), Srinagar (Jammu and Kashmir), Surat (Gujarat), Surathkal (Karnataka), Tiruchirappalli (Tamil Nadu) and Warangal (Andhra Pradesh).

including their financial implications. The Council consists of (i) Minister of Human Resource Development (MHRD), (ii) Secretary to the Government of India in MHRD, (iii) Chairperson of every Board, ex-officio (iv) Director of every Institute, (v) Chairman, University Grants Commission, (vi) Director General, Council of Scientific and Industrial Research, ex-officio, (vii) four secretaries to the Government of India representing the Ministries of Departments dealing with biotechnology, atomic energy, information technology and space, ex-officio, (viii) Chairman, All India Council for Technical Education, ex-officio, (ix) three to five persons nominated by the Visitor, at least one of whom should be a woman having special knowledge or practical experience in respect of education, industry, science or technology, (x) three members of Parliament (xi) two Secretaries to the State Government from amongst the Ministries/Departments dealing with technical education where the Institution is located (xii) Financial Advisor dealing with MHRD and (xiii) one officer not below the rank of Joint Secretary to the Government of India in the Ministry/department having administrative control of technical education, ex-officio as Member-Secretary.

The Board of Governors (BOGs) of the respective NIsT is responsible for general superintendence, direction and control. The Senate of the respective NIsT is responsible to maintain the standards of instructions, education and examination. The financial matters are looked after by a Finance Committee of the respective NIsT, of which Chairman of BOGs is ex-officio Chairman. Construction, repair and maintenance works are looked after by the Building and Works Committee of the respective NIsT. The day to day administration of the respective NIsT is looked after by a Director, who is assisted by a Deputy Director, a Registrar looking after general administration while academic side is controlled by Deans and heads of respective departments. The organizational structure of the NIsT is depicted in the following chart:



2 Audit Approach

The audit of the National Institutes of Technology is conducted under section 19(2) of the Comptroller and Auditor General's (Duties, Powers and Conditions of Service) Act, 1971 read with Section 22(2) of the National Institute of Technology Act 2007.

2.1 Audit objectives

The performance audit of the NIsT was conducted to assess whether:

- various statutory authorities of the Institute were functioning as per the Act and management of financial resources was efficient, based on proper assessment of requirements and in conformity with the applicable rules and regulations;
- planning, formulation and management of academic programmes and research activities was efficient, effective and based on proper assessment of requirement;
- human resource management of academic and non-academic staff was efficient;
- development of infrastructural facilities was adequate, utilized optimally and maintained effectively; and
- effective internal control and monitoring system existed.

2.2 Audit scope

The performance audit covers the activities of 19 NIsT for the period 2005-06 to 2009-10. However, academic activities relating to five streams viz. (i) Civil Engineering, (ii) Electronics and Communication, (iii) Chemical Engineering, (iv) Mechanical Engineering and (v) IT Engineering of 10 NIsT² selected on the basis of geographical representation are covered in this report.

2.3 Audit criteria

The following audit criteria were used in the preparation of the report:

- Memorandum of Association 2001 of respective NIsT;
- NIT Act 2007, First Statutes of the NIsT of April 2009 and Guidelines of All India Council for Technical Education (AICTE), University Grants Commission (UGC), Minutes of meetings of various committees;
- Central Public Works Department Code; and General Financial Rules, 2005.

²Allahabad, Bhopal, Calicut, Durgapur, Jalandhar, Kurukshetra, Nagpur, Silchar, Surathkal and Warangal

2.4 Audit Methodology

The performance audit commenced with entry conference with the managements of all the NITs except NIT Srinagar during September – October 2010 where the audit objectives, scope and methodology were explained. Detailed checking of transactions of two months per year was made on random selection basis in each NIT.

Audit observations relating to each NIT were issued separately. Replies were received from the management of 14 NITs and have been suitably incorporated in the report. The observations were discussed in an exit conference held between 14 January and 26 May 2011 with each NIT separately.

3 Audit Findings

3.1 General Management

Audit findings are discussed in the succeeding paragraphs:

The activities and functioning of the NITs are governed by Memorandum of Association (MOA), Rules (2001), NIT Act 2007 and the Statute (23 April 2009). The said Act, Rules/Statute stipulates setting up of various authorities/committees within the institute for its smooth functioning. Strength, norms of periodical meetings of these authorities/committees *vis-à-vis* actuals is indicated in **Table-1**.

Table-1

Sl. No.	Name of the Committee	Norms		
		Number of members	Number of meetings to be held yearly	Periodicity of the meetings
1	Council	59	1	Annual
2	Board of Governors	10 ³	4	Quarterly
3	Senate	5 + (as per strength of professors in each NIT)	4	Quarterly
4	Finance Committee	7	4	Quarterly
5	Building and Works Committee	7	4	Quarterly

The actual position, as against the norms as regards strength of members, periodicity of holding meetings by the Council, BOGs, Senate, FC and BWC during the period 2005-10 and other general information on functioning of these authorities / committees are discussed below:

³ Before enactment of the Act, this was in the range of 11-15 members as per MOA of the respective NIT.

3.1.1 Council

As per norms prescribed by the Act, Council was required to meet at least two times during the period from enactment of the Act in June 2007 to March 2010. Against the above requirement, the Council met only once in October 2009 wherein, two Committees were formed; first to look into the problem of seats remaining vacant after counselling and ascertaining reasons there for and other for revision of curriculum. The Chairman also put emphasis that the Council should meet every six months. It was observed that no meeting was, however, held thereafter as of date.

Due to non-holding of meetings of the Council as per the norms, the following core issues remained unattended at the highest level:

- Matters relating to duration of courses, degrees and other academic distinctions;
- Admission standards and other academic matters;
- Examining the development plans of each Institute and approval of such of them as are considered necessary; and
- Monitoring of the follow up action on the decisions taken in earlier meetings.

3.1.2 Board of Governors

Provisions of the MsOA substituted by the Act of 2007 provided constitution of Board of Governors (BOGs) in every Institute. The BOG should consists of (i) Chairperson, (ii) Director ex-officio, (iii) two members from amongst persons dealing with technical education and finance not below the rank of Joint Secretary of the GOI, (iv) two members (technologist or industrialist of repute) to be nominated by the State Government in which the Institute is situated, (v) two persons at least one of whom shall be a woman having special knowledge or practical experience in education, engineering or science, (v) one professor and one assistant professor or lecturer of the Institute to be nominated by the senate. The BOG is primarily responsible for general superintendence, direction and control of the affairs of the Institute, which involves policy decisions relating to administration and working of Institute, courses of study, making Statutes, appointment of staff, passing resolution on the annual report, annual accounts and budget estimates for submission to the Council together with a statement of development/perspective plan. The BOG also has powers to appoint various committees as it considers necessary.

Scrutiny of data relating to strength of the BOGs, number of meetings held, preparation of agenda / minutes of the meetings, etc. revealed the following shortcomings during the period 2005-10:

Report No. 13 of 2011-12

- The actual strength of the members in BOGs in six NIsT⁴ was less than the prescribed strength during 2005-09 as indicated in **Annexe-I**.
- After the enactment of Act, 14 NIsT⁵ did not reduce the strength of their BOGs where the number of members of the board remained in the range of 11-15 in the year 2008 and 2009.
- Against the norms of four meetings to be held in each calendar year, NIsT held less number of meetings during 2005-2009 as given in **Annexe-II**.
- Development/perspective plan was not prepared by 10 NIsT⁶ during 2005-09.

3.1.3 Senate

Provisions of the MsOA substituted by the Act of 2007 provided constitution of Senate in every Institute. The Senate should consists of (i) Director, ex-officio who will also be the Chairperson, (ii) Dy. Director, ex-officio, (iii) the professors appointed or recognized as such by the Institute for the purpose of imparting instructions in the Institute, (iv) three members, one of whom shall be a woman, not being employee of the Institute to be nominated by the Chairperson in consultation with the Director, from amongst educationists of repute, one each from the field of science, engineering and humanities and (v) such other members of the staff as may be laid down in the Statutes.

The Senate of an Institute shall have the control and general regulation, and be responsible for the maintenance of standards of instruction, education and examination in the Institute and shall exercise such other powers and perform such other duties as may be conferred or imposed by the Statutes. Accordingly, Central Government in its first Statute notified (April 2009), empowered the Senate to frame and revise curricula and syllabi for the courses, make arrangements for conduct of examination, timely declaration of results, grant of degrees, diplomas, other academic distinctions and titles, make periodical review of departments, creation or restructuring of departments or programmes, to disseminate knowledge through distance learning mode to various parts of the State or country or abroad, etc.

Audit test-check revealed that in four NIsT, the actual number of meetings held by the Senate was less than the prescribed number of four meetings to be held in each calendar year as detailed in **Table-2**.

⁴ Bhopal, Jaipur, Jalandhar, Kurukshetra, Nagpur and Warangal.

⁵ Agartala-14, Allahabad-13, Bhopal-13, Calicut-13, Durgapur-13, Hamirpur-14, Jalandhar-13, Jamshedpur-11, Kurukshetra-13, Nagpur-13, Raipur-13, Rourkela-11, Surat-14 & 15, and Tiruchirappalli-14.

⁶ Allahabad, Bhopal, Calicut, Hamirpur, Jaipur, Jalandhar, Kurukshetra, Raipur, Surat and Warangal.

Table-2

Name of the NIT	Number of meetings held				
	2005	2006	2007	2008	2009
Calicut	-	3	-	3	3
Kurukshetra	1	-	2	1	2
Nagpur	3	2	1	-	3
Surathkal	3	2	-	-	-

3.1.4 Finance Committee

Provisions of the MsOA substituted by the Act of 2007 provided constitution of Finance Committee in every Institute. Subsequently, in exercise of the powers conferred by the provisions of the Act, the Central Government, in its First Statute (April 2009), constituted Finance Committee for each Institute which should consist of (i) Chairperson of the BOG, ex-officio, (ii) Director, ex-officio member, (iii) Joint Secretary dealing with NIsT or his nominee and Financial Advisor (MHRD) or his nominee member, (iv) two persons nominated by the BOG from amongst its members and (v) Registrar, ex-officio Member-Secretary. In addition, Chairperson in consultation with the Director may co-opt a member as and when found necessary.

The Finance Committee of an Institute shall be responsible (i) to examine and scrutinize the annual budget prepared by the Director and make recommendations to the Board (ii) give its views and make its recommendations on any financial question affecting the institute to the Board either on the initiative of the Board or suo moto. It should hold four meetings in a year.

Scrutiny of data revealed the following shortcomings in holding the meetings of FC during the period 2005-10:

- Five NIsT⁷ did not conduct even a single meeting during the year as noted against each.
- The Act provided seven members of the Finance Committee in each NIT against the varied numbers in different NIsT as governed by their respective MsOA. Audit, however, noticed that the actual strength of members in three NIsT⁸ was six.
- Against the norms of four meetings to be held annually after the enactment of the Act (and varied norms in different NIsT as per their respective MsOA before enactment of the Act), NIsT mentioned in **Annexe-II** held less number of meetings during the years 2005-2009.

⁷ Bhopal (2006), Jamshedpur (2006), Raipur (2005), Rourkela (2008) and Warangal (2005).

⁸ Nagpur, Silchar and Tiruchirappalli.

3.1.5 Building and Works Committee

As per Rule 7 of MOA and Rules 12 and 13 of the First Statute (April 2009), Building and Works Committee (BWC) is responsible for construction of all major works after obtaining the necessary administrative approval and sanction of expenditure from BOGs and to give necessary administrative approval and expenditure sanction for minor works and works pertaining to repair and maintenance, acceptance of tenders, settle rates not covered by tenders and settle claims and disputes with contractors, etc.

It was observed that in contravention of the above provisions, NIT Warangal carried out five works valuing ₹ 6.32 crore during the years 2008-09 and 2009-10 without obtaining recommendations of BWC.

Recommendations

- *The meeting of the Council, BOG and FC should be held as per norms fixed by the Act so that core issues may not be left unattended.*
- *Concerted efforts should be made to augment the strength of the BOG as prescribed in the Act for smooth functioning.*
- *The development/perspective plan should be prepared by each NIT.*
- *Mechanism should be evolved to ensure that works are taken up only after the approval of BWC as per delegation of powers of each NIT.*

3.2 Financial Management

3.2.1 Finance Committee

The Act provided that to enable the Institutes to discharge their functions efficiently, the Central Government may, after due appropriation made by the Parliament pay to every Institute in each financial year such sums of money and in such manner as it may think fit. The Institute would maintain a Fund to which all moneys provided by the Central Government, all fees and other charges received by the Institute and all moneys received by the Institute by way of grants, gifts, donations, benefactions, bequests or transfers or moneys received from any other source shall be credited.

Financial matters of the Institute are being dealt with by the Finance Committee with due approval of BOGs. The Financial Committee consists of (i) Chairperson of the BOG, ex-officio Chairman; (ii) Director, ex-officio; (iii) Joint Secretary dealing with NIsT and Financial Advisor (MHRD); (iv) two persons nominated by the Board from amongst its members; (v) Registrar, ex-officio Member Secretary. The general functions of the Finance Committee is (i) to examine and scrutinize the annual budget and make recommendation to the Board and (ii) give its views and make its recommendations on any financial matters affecting the Institute to the Board. Details of receipt and

expenditure of 19 NIsT for the period from 2005-06 to 2009-10 is given in **Annexe-III - (A to G)**.

3.2.2 Utilization of Funds

The year-wise details of receipt and utilization of funds in respect of all the 19 NIsT for the period from 2005-06 to 2009-10 are given in **Table-3**.

Table-3

(₹ in crore)

Year	Plan			Non-Plan			Total receipt	Total expenditure
	Grant internal receipt	Total	Expenditure	Grant internal receipt	Total	Expenditure		
Opening Balance	41.46 0.00	41.46		26.67 0.58	27.25		68.71	
2005-06	87.88 0.22	88.10	103.59	193.04 55.28	248.32	245.25	336.42	348.84
2006-07	146.23 0.15	146.38	143.40	217.87 74.19	292.06	288.49	438.44	431.89
2007-08	231.65 4.29	235.94	245.93	258.71 88.85	347.56	327.60	583.50	573.53
2008-09	744.36 [#] 2.27	746.63	622.53 [#]	380.25 113.51	493.76	432.46	1240.39	1054.99
2009-10	859.53 [#] 3.03	862.56	826.77 [#]	535.14 173.21	708.35	708.66	1570.91	1535.43
Total		2079.61	1942.22		2090.05	2002.46	4169.66	3944.68
Closing Balance	178.85 0.00	178.85		114.26 0.58	114.84		293.69	

[#] this includes grants/expenditure for OBC

It may be seen from the above table that the grant to the extent of ₹ 293.69 crore (Plan and Non-Plan both) remained un-utilized during the period of five years ending March 2010. This indicated that the budget proposals made were not on realistic basis as has been discussed in the following paragraph.

Director, NIT Kurukshetra replied (January 2011) that surplus funds would be utilized during 2010-11. The reply was not convincing as funds remained unspent in all the years, which indicated that either activities of the Institute were not carried out as planned or budget proposals were not made on realistic basis.

3.2.3 Unrealistic preparation of budgets

As per instructions contained in Appendix – 3 below Rule 48 of GFR, the revised estimates for the current year and budget estimates for the ensuing year shall be prepared on the basis of inevitable payments, including arrears of previous years, if any. Due attention to consideration of economy must be paid and while all inescapable and foreseeable expenditure should be provided for, care should be taken that the estimates are not influenced by undue optimism.

The details of budget proposals sent to MHRD and grants actually received from MHRD by 19 NIsT under plan and non-plan heads during the period 2005-10 are given in **Table-4**.

Table-4

Year	Budget proposal sent to MHRD	Grants actually received from MHRD (₹ in crore)	Shortfall with respect to budget	Percentage of grant received with respect to budget proposal
Plan grants				
2005-06	166.40	87.88	78.52	53
2006-07	330.96	146.23	184.73	44
2007-08	672.79	231.65	441.14	34
2008-09	1200.08 [@]	550.54 [@]	649.54	46
2009-10	1454.52 [@]	723.84 [@]	730.68	50
Non-plan grants				
2005-06	252.79	193.04	59.75	76
2006-07	300.82	217.87	82.95	72
2007-08	349.79	258.71	91.08	74
2008-09	476.06	380.25	95.81	80
2009-10	706.39	535.14	171.25	76

[@] does not include proposal for OBC

The above table revealed that the percentage of grant received with reference to the budget proposals remained in the range of 34 to 53 *per cent* only in respect of Plan grants whereas in respect of Non-Plan grants, the actual grant received remained in the range of 72 – 80 *per cent* of the budget proposals. Audit further observed that despite receipt of grant lower than the budget proposals, there was an unutilized grant of ₹ 293.69 crore at the end of the reporting period as discussed in paragraphs 3.2 *ibid*. This indicated that the budget proposals made were on the higher side.

The Director, NIT Jalandhar replied (January 2011) that budget was revised according to the requirement and availability of funds and it was not possible to stick to budget or revised budget due to irregular release of grants by MHRD. The reply was not convincing because the Institute was not able to utilize even the available funds.

Director, NIT Kurukshetra replied (January 2011) that the proposals were prepared as per requirement of the Institute but it depended on GOI to release the grants. The reply of the Institute was not convincing because despite receiving less grants, the Institute had surplus funds which ranged between ₹ 3.11 crore and ₹ 24.91 crore during the period 2005-10.

Thus, the fact remained that budget proposals made by the NIsT were not on realistic basis.

3.2.4 Non-recovery of cess from contractors

Section 3 of the Building and Other Construction Workers' Welfare Cess Act, 1996 provides for levy and collection of cess at the rate of one *per cent* of the cost of construction of work from an employer and depositing the same with the Board.

The details of completed construction works on which cess was not recovered from the contractors by the following NITs are given in **Table-5**.

Table-5

(₹ in lakh)

Sl. No.	Name of NIT	Number of works	Value of works	Cess due	Cess recovered	Balance cess due
1.	Bhopal	186	535.43	5.35	0	5.35
2.	Hamirpur	36	4,870.83	48.71	0	48.71
3.	Silchar	10	1,932.03	19.32	0	19.32
Total		232	7,338.29	73.38	0	73.38

The Director, NIT Bhopal replied (October 2010) that outstanding cess would be adjusted from the security deposit/retention money of the respective contractors.

The Director, NIT Hamirpur replied (September 2010) that cess was not recovered as the notification regarding the implementation of cess Act was not conveyed to the Institute.

In Haryana, Government notified on 2.8.2007 that new contracts should carry provisions for deduction of cess at the rate of one *per cent* of the total cost and the proceeds should be deposited to the Board. It was, however, noticed that the cess recovery clause was not incorporated in five works costing ₹ 12.38 crore awarded after 2.8.2007. However, the cess amounting to ₹ 12.38 lakh (one *per cent* of the total cost of the work) was deducted from the security of the contractors of these five works and deposited with the Board. Subsequently, the security was recouped by increasing the cost of the works at the rate of one *per cent* by agenda item No. 11.13 of the BOGs' meeting which created extra burden on the Institution to the tune of ₹ 12.38 lakh. The action of NIT, Kurukshetra was irregular as clause for recovery of cess was required to be incorporated in the DNIT.

Recommendations

- *The budget proposals should be prepared on realistic basis after ascertaining the actual needs of the Institute and the Ministry should ensure timely release of grants.*
- *Recovery of cess should be made from the contractor as per provisions of the Act.*

3.3 Academic Activities

The NITs are offering undergraduate (UG) and postgraduate (PG) courses in various streams of engineering and technology. The admissions to UG courses are made by Central Counseling Board (CCB) amongst candidates who have qualified in the All India Engineering Entrance Examination (AIEEE) after completion of 10 plus 2 Board examinations in science stream. The admissions to PG courses are made at Institute level on the basis of Graduate Aptitude Test in Engineering (GATE). After filling PG seats through GATE, remaining vacant seats are offered to non-GATE candidates with a minimum of 60 per cent marks in their qualifying examination.

Academic activities relating to the five streams viz. (i) Civil Engineering, (ii) Electronics and Communication Engineering, (iii) Mechanical Engineering, (iv) Chemical Engineering and (v) IT Engineering in respect of 10 selected NITs (refer footnote No.2) have been examined in this performance audit. In cases where any of the above streams was not available in any NIT, another available stream in that NIT has been covered.

Audit observed the following:

3.3.1 Position of students' intake capacity, admissions and vacant seats

A Civil Engineering

The position of intake capacity, number of students admitted, vacant seats and percentage of vacant seats in UG and PG courses of Civil Engineering in totality during the years noted against each is given in **Table-6**.

Table-6

Sl. No.	Name of NIT	Intake capacity Seats/year(s)		No. of students admitted		No. of vacant seats		Percentage of vacant seats to intake capacity	
		UG	PG	UG	PG	UG	PG	UG	PG
1.	Allahabad	52 ₀₅₋₀₆	272 ₀₅₋₁₀	30	104	22	168	42.31	61.76
2.	Bhopal	120 ₀₅₋₀₇	337 ₀₅₋₁₀	111	171	9	166	7.50	49.26
3.	Calicut	530 ₀₅₋₁₀	399 ₀₅₋₁₀	473	252	57	147	10.75	36.84
4.	Durgapur	80 ₀₅₋₀₇	87 ₀₅₋₁₀	68	21	12	66	15.00	75.86
5.	Jalandhar	90 ₀₅₋₀₇	94 ₀₅₋₁₀	58	25	32	69	35.56	73.40
6.	Kurukshetra	364 _{05-08, 09-10}	400 ₀₅₋₁₀	340	52	24	348	6.59	87.00
7.	Nagpur	191 _{05-06, 07-09}	145 ₀₅₋₁₀	179	93	12	52	6.28	35.86
8.	Silchar	262 ₀₅₋₀₉	184 ₀₅₋₁₀	233	57	29	127	11.07	69.02
9.	Surathkal	407 ₀₅₋₁₀	435 ₀₅₋₁₀	373	331	34	104	8.35	23.91
10	Warangal	50 ₀₅₋₀₆	668 ₀₅₋₁₀	45	408	5	260	10.00	38.92

The position of vacant seats in the range of 5 in NIT Warangal to the maximum of 57 in NIT Calicut was not satisfactory whereas in PG courses the position was worst as maximum of seats (in the range 23.91 *per cent* in Surathkal to 87 *per cent* in NIT Kurukshetra) remained vacant during the period 2005-10. Year-wise position of vacant seats in respect of each NIT is given in **Annexe-IV-A**.

B Electronics and Communication Engineering:

The position of intake capacity, number of students admitted, vacant seats and percentage of vacant seats in UG and PG courses of Electronics and Communication Engineering in totality during years noted against each is given in **Table-7**.

Table-7

Sl. No.	Name of NIT	Intake capacity Seats/ year(s)		No. of students admitted		No. of vacant seats		Percentage of vacant seats to intake capacity	
		UG	PG	UG	PG	UG	PG	UG	PG
1	Allahabad	-	132 ₀₅₋₁₀	-	115	-	17	-	12.88
2	Bhopal	-	32 ₀₉₋₁₀	-	31	-	1	-	3.13
3	Calicut	415 _{05-08, 09-10}	334 ₀₅₋₁₀	409	291	6	43	1.45	12.87
4	Durgapur	-	44 ₀₉₋₁₀	-	36	-	8	-	18.18
5	Jalandhar	131 _{05-06, 08-09}	78 ₀₆₋₁₀	129	51	2	27	1.53	34.62
6	Kurukshetra	120 ₀₉₋₁₀	100 _{05-06, 08-10}	118	92	2	8	1.67	8.00
7	Nagpur	71 ₀₈₋₀₉	59 _{05-07, 08-10}	70	52	1	7	1.41	11.86
8	Silchar	60 ₀₆₋₀₇	56 ₀₇₋₁₀	56	20	4	36	6.67	64.29
9	Surathkal	415 ₀₅₋₁₀	17 ₀₅₋₀₆	401	16	14	1	3.37	5.88
10	Warangal	-	64 ₀₉₋₁₀	-	62	-	2	-	3.13

The position of vacant seats in UG courses was not satisfactory in NIT Calicut and Surathkal where 6 and 14 seats respectively remained vacant whereas in PG courses the position of vacant seats was worst like Civil Engineering as seats ranging from 3.13 *per cent* to 64.29 *per cent* remained vacant in totality during the period of report. Year-wise position of vacant seats in respect of each NIT is given in **Annexe-IV-B**.

C Mechanical Engineering

The position of intake capacity, number of students admitted, vacant seats and percentage of vacant seats in UG and PG courses of Mechanical Engineering (Electrical Engineering in NIT Bhopal) in totality during years noted against each is given in **Table-8**.

Table-8

Sl. No	Name of NIT	Intake capacity Seats/ Year(s)		No. of students admitted		No. of vacant seats		Percentage of vacant seats to intake capacity	
		UG	PG	UG	PG	UG	PG	UG	PG
1	Allahabad	145 ₀₉₋₁₀	289 ₀₅₋₁₀	143	242	2	47	1.38	16.26
2	Bhopal	140 ₀₅₋₀₇	83 _{06-08, 09-10}	136	72	4	11	2.86	13.25
3	Calicut	544 ₀₅₋₁₀	538 ₀₅₋₁₀	517	393	27	145	4.96	26.95
4	Durgapur	-	72 ₀₆₋₁₀	-	40	-	32	-	44.44
5	Jalandhar	60 ₀₆₋₀₇	77 ₀₆₋₁₀	58	33	2	44	3.33	57.14
6	Kurukshetra	300 _{06-08, 09-10}	239 ₀₅₋₁₀	294	204	6	35	2.00	14.64
7	Nagpur	71 ₀₈₋₀₉	163 _{05-06, 07-10}	70	145	1	18	1.41	11.04
8	Silchar	120 ₀₅₋₀₇	130 ₀₅₋₁₀	112	60	8	70	6.67	53.85
9	Surathkal	611 ₀₅₋₁₀	70 ₀₇₋₀₉	591	50	20	20	3.27	28.57
10	Warangal	120 ₀₅₋₀₇	367 _{05-07, 08-10}	111	326	9	41	7.50	11.17

The position of vacant seats in the range of 6 in NIT Kurukshetra to the maximum of 27 in NIT Calicut was not satisfactory. In respect of PG courses, the position of admissions was not encouraging as the vacant seats again remained in the range of 11.04 to 57.14 *per cent* during the period of report in totality. Year wise position of vacant seats in respect of each NIT is given in **Annexe-IV-C**.

D Chemical Engineering

The position of intake capacity, number of students admitted, vacant seats and percentage of vacant seats in UG and PG courses of Chemical Engineering (Electrical Engineering in case of NIT Allahabad, Kurukshetra and Silchar) in totality during the years noted against each is given in **Table-9**.

Table-9

Sl. No	Name of NIT	Intake capacity Seats/ year(s)		No. of students admitted		No. of vacant seats		Percentage of vacant seats to intake capacity	
		UG	PG	UG	PG	UG	PG	UG	PG
1	Allahabad	50 ₀₅₋₀₆	162 _{05-08, 09-10}	46	120	4	42	8.00	25.93
2	Bhopal	47 ₀₈₋₀₉	0	46	0	1	0	2.13	0
3	Calicut	270 ₀₆₋₁₀	0	233	0	37	0	13.70	0
4	Durgapur	125 _{05-07, 08-09}	87 ₀₅₋₁₀	121	42	4	45	3.20	51.72
5	Jalandhar	332 ₀₅₋₁₀	75 ₀₆₋₁₀	269	21	63	54	18.98	72.00
6	Kurukshetra	400 ₀₆₋₁₀	179 ₀₅₋₀₉	392	144	8	35	2.00	19.55
7	Nagpur	212 _{06-07, 08-10}	0	190	0	22	0	10.38	0
8	Silchar	110 ₀₅₋₀₇	102 ₀₅₋₁₀	96	44	14	58	12.73	56.86
9	Surathkal	210 ₀₅₋₁₀	214 ₀₅₋₁₀	199	178	11	36	5.24	16.82
10	Warangal	40 ₀₅₋₀₆	79 ₀₅₋₁₀	36	67	4	12	10.00	15.19

The position of vacant seats in the range of minimum 8 in NIT Kurukshetra to the maximum of 63 in NIT Jalandhar was far from satisfactory whereas on the front of PG courses, the position of admissions was not encouraging as it remained in the range of 15.19 to 72.00 *per cent* during the period of report in totality. Year wise position of vacant seats in respect of each NIT is given in **Annexe-IV-D**.

E IT Engineering

The position of intake capacity, number of students admitted, vacant seats and percentage of vacant seats in UG and PG courses of IT Engineering (Computer Engineering in case of NIT Calicut, Jalandhar, Nagpur, Silchar and Warangal) in totality during the years noted against each is given in **Table-10**.

Table-10

Sl. No.	Name of NIT	Intake capacity Seats/year(s)		No. of students admitted		No. of vacant seats		Percentage of vacant seats to intake capacity	
		UG	PG	UG	PG	UG	PG	UG	PG
1	Allahabad	120 ₀₆₋₀₈	152 ₀₆₋₀₉	118	123	2	29	1.67	19.08
2	Bhopal	180 ₀₅₋₀₈	0	171	0	9	0	5.00	0
3	Calicut	521 ₀₅₋₁₀	364 ₀₅₋₁₀	508	318	13	46	2.50	12.64
4	Durgapur	237 _{05-07, 09-10}	58 _{06-08, 09-10}	201	48	36	10	15.19	17.24
5	Jalandhar	191 _{05-06, 07-09}	60 ₀₇₋₁₀	187	42	4	18	2.09	30.00
6	Kurukshetra	207 _{06-07, 08-10}	45 _{05-07, 09-10}	202	23	5	22	2.42	48.89
7	Nagpur	71 ₀₈₋₀₉	-	70	-	1	-	1.41	-
8	Silchar	192 _{05-07, 09-10}	0	166	0	26	0	13.54	0
9	Surathkal	338 _{05-06, 07-10}	0	325	0	13	0	3.85	0
10	Warangal	66 ₀₅₋₀₆	40 ₀₉₋₁₀	65	37	1	3	1.52	7.50

The number of vacant seats in the range of 5 in NIT Kurukshetra to the maximum of 36 in NIT Durgapur was unsatisfactory. On the front of PG courses, the position of admissions was also not encouraging as it remained in the range of 7.50 to 48.89 *per cent* during the period of report in totality. Year-wise position of vacant seats in respect of each NIT is given in **Annexe-IV-E**.

Analysis of the position of admission *vis-à-vis* vacant seats as a whole indicated that proper assessment of requirement of courses was neither made initially at the time of starting the PG courses nor for their continuity in subsequent years on the basis of actual admission of students in each year in any of the above streams in all the aforesaid NITs.

3.3.2 Admission of students in excess of intake capacity

AICTE guidelines stipulate that no excess admissions should be made over and above the approved intake capacity of an institute under any circumstances. In contravention of these guidelines, the NIST had been enrolling extra students as per details given below:

A Civil Engineering

The position of intake capacity, admissions and excess seats filled in UG and PG courses of Civil Engineering during the years noted against each is given in **Table-11**.

Table-11

Sl. No.	Name of NIT	Intake capacity Seats/ year(s)		No. of students admitted		No. of students admitted in excess		Percentage of excess admission over intake capacity	
		UG	PG	UG	PG	UG	PG	UG	PG
1.	Allahabad	208 ₀₇₋₁₀	-	225	-	17	-	8.17	-
2.	Bhopal	213 ₀₇₋₁₀	-	226	-	13	-	6.10	-
3.	Calicut	-	-	-	-	-	-	-	-
4.	Durgapur	97 ₀₈₋₁₀	-	109	-	12	-	12.37	-
5.	Jalandhar	-	-	-	-	-	-	-	-
6.	Kurukshetra	-	-	-	-	-	-	-	-
7.	Nagpur	141 _{06-07, 09-10}	-	144	-	3	-	2.13	-
8.	Silchar	92 ₀₉₋₁₀	-	100	-	8	-	8.69	-
9.	Surathkal	-	-	-	-	-	-	-	-
10.	Warangal	-	-	-	-	-	-	-	-

It may be seen from the above table that the position of excess seats filled up in UG courses was in the range of 3 in NIT Nagpur to the maximum of 17 in NIT Allahabad. Year-wise position of each NIT is given in **Annexe-IV-A** which would indicate that in all the years the seats in UG courses were filled up in excess.

B Electronics and Communication Engineering

The position of intake capacity, admissions and excess seats filled in UG and PG courses of Electronics and Communication Engineering during the years noted against each is given in **Table-12**.

Table-12

Sl. No.	Name of NIT	Intake capacity Seats/year(s)		No. of students admitted		No. of students admitted in excess		Percentage of excess admissions over intake capacity	
		UG	PG	UG	PG	UG	PG	UG	PG
1.	Allahabad	492 ₀₅₋₁₀	-	549	-	57	-	11.59	-
2.	Bhopal	498 ₀₅₋₁₀	83 ₀₅₋₀₉	571	94	73	11	14.66	13.25
3.	Calicut	121 ₀₈₋₀₉	-	122	-	1	-	0.83	-
4.	Durgapur	326 ₀₅₋₁₀	-	366	-	40	-	12.27	-
5.	Jalandhar	-	-	-	-	-	-	-	-
6.	Kurukshetra	-	54 ₀₆₋₀₈	-	57	-	3	-	5.56
7.	Nagpur	81 ₀₉₋₁₀	-	82	-	1	-	1.23	-
8.	Silchar	184 ₀₈₋₁₀	-	201	-	17	-	9.24	-
9.	Surathkal	-	38 ₀₇₋₀₉	-	41	-	3	-	7.89
10.	Warangal	276 _{06-07, 08-10}	41 ₀₆₋₀₇	294	43	18	2	6.52	4.88

The position of excess UG seats filled up was in the range of 17 in NIT Silchar to the maximum of 73 in NIT Bhopal. On the front of PG courses, the position of admissions was also not satisfactory as it remained in the range of 4.88 to 13.25 *per cent* during the period of report in totality. Year-wise position of each NIT is given in **Annexe-IV-B**, which would indicate that in all the years the seats in UG and PG courses were filled up in excess.

C Mechanical Engineering

The position of intake capacity, admissions and excess seats filled in UG and PG courses of Mechanical Engineering (Electrical Engineering in case of NIT Bhopal) during the years noted against each is given in **Table-13**.

Table-13

Sl. No.	Name of NIT	Intake capacity Seats/year (s)		No. of students admitted		No. of students admitted in excess		Percentage of excess admissions over intake capacity	
		UG	PG	UG	PG	UG	PG	UG	PG
1.	Allahabad	326 ₀₅₋₀₉	-	356	-	30	-	9.20	-
2.	Bhopal	248 ₀₇₋₁₀	41 _{05-06, 08-09}	254	45	6	4	2.42	9.76
3.	Calicut	-	-	-	-	-	-	-	-
4.	Durgapur	360 _{05-06, 07-10}	15 ₀₅₋₀₆	446	25	86	10	23.89	66.67
5.	Jalandhar	-	-	-	-	-	-	-	-
6.	Kurukshetra	-	-	-	-	-	-	-	-
7.	Nagpur	81 ₀₉₋₁₀	-	83	-	2	-	2.47	-
8.	Silchar	184 ₀₈₋₁₀	-	187	-	3	-	1.63	-
9.	Surathkal	-	105 _{05-07, 09-10}	-	125	-	20	-	19.05
10.	Warangal	188 ₀₈₋₁₀	-	190	-	2	-	1.06	-

Report No. 13 of 2011-12

The position of excess UG seats filled up was in the range of six in NIT Bhopal (Electrical) to the maximum of 86 in NIT Durgapur. On the front of PG courses, the position of admissions was also not satisfactory as it remained in the range of 9.76 to 66.67 *per cent* during the period of report in totality. Year-wise position of each NIT is given in **Annexe-IV-C**, which would indicate that in all the years the seats in UG and PG courses were filled up in excess.

D Chemical Engineering

The position of intake capacity, admissions and excess seats filled in UG and PG courses of Chemical Engineering (Electrical Engineering in case of NIT Allahabad, Kurukshetra and Silchar) during the years noted against each is given in **Table-14**.

Table-14

Sl. No.	Name of NIT	Intake capacity Seats/year(s)		No. of students admitted		No. of students admitted in excess		Percentage of excess admissions over intake capacity	
		UG	PG	UG	PG	UG	PG	UG	PG
1.	Allahabad	150 ₀₆₋₀₉	-	162	-	12	-	8.00	-
2.	Bhopal	54 ₀₉₋₁₀	-	56	-	2	-	3.70	-
3.	Calicut	-	-	-	-	-	-	-	-
4.	Durgapur	52 ₀₉₋₁₀	-	53	-	1	-	1.92	-
5.	Jalandhar	-	-	-	-	-	-	-	-
6.	Kurukshetra	-	48 ₀₉₋₁₀	-	55	-	7	-	14.58
7.	Nagpur	-	-	-	-	-	-	-	-
8.	Silchar	184 ₀₈₋₁₀	-	198	-	14	-	7.61	-
9.	Surathkal	-	-	-	-	-	-	-	-
10.	Warangal	184 ₀₈₋₁₀	-	186	-	2	-	1.09	-

The position of excess admissions in UG and PG courses of Chemical Engineering was satisfactory as excess admission of two seats in NIT Bhopal and Warangal each and one seat in NIT Durgapur was insignificant. However, under Electrical Engineering, the matter of excess admissions in the range of 7.61 to 14.58 *per cent* in UG and PG courses needs to be addressed. Year-wise position of each NIT is given in **Annexe-IV-D**.

E IT Engineering

The position of intake capacity, admissions and excess seats filled in UG and PG courses of IT Engineering (Computer Engineering in case of NIT Calicut, Jalandhar, Nagpur, Silchar and Warangal) during the years noted against each is given in **Table-15**.

Table-15

Sl. No.	Name of NIT	Intake capacity Seats/years(s)		No. of students admitted		No. of students admitted in excess		Percentage of excess admissions over intake capacity	
		UG	PG	UG	PG	UG	PG	UG	PG
1.	Allahabad	138 ₀₈₋₁₀	91 _{05-06, 09-10}	158	94	20	3	14.49	3.30
2.	Bhopal	153 ₀₈₋₁₀	-	162	-	9	-	5.88	-
3.	Calicut	-	-	-	-	-	-	-	-
4.	Durgapur	68 ₀₈₋₀₉	18 ₀₅₋₀₆	70	39	2	21	2.94	116.67
5.	Jalandhar	-	-	-	-	-	-	-	-
6.	Kurukshetra	-	-	-	-	-	-	-	-
7.	Nagpur	-	-	-	-	-	-	-	-
8.	Silchar	92 ₀₈₋₀₉	-	95	-	3	-	3.26	-
9.	Surathkal	-	-	-	-	-	-	-	-
10.	Warangal	-	-	-	-	-	-	-	-

NIT Allahabad and Bhopal admitted students in UG courses in excess of their intake capacity to the extent of 14.49 *per cent* and 5.88 *per cent* respectively. On the front of PG courses, the position of admissions was also not satisfactory as it remained in the range of 3.30 to 116.67 *per cent* during the period of report in totality, which is a matter of concern and needs to be addressed in future years. Year-wise position of each NIT is given in **Annexe-IV-E**.

A study of the comparative position of all the above streams revealed that NIT at Allahabad, Bhopal, Durgapur and Silchar enrolled student in excess over the intake capacity in all the five streams whereas NIT Nagpur and Warangal enrolled student in excess over the intake capacity in three streams each. There was no sanction from AICTE/Ministry found available on record regularizing admission of students both in UG and PG courses in excess over the intake capacity in the respective NIT.

3.3.3 Starting of new UG and PG courses

A UG courses

The position of intake capacity, number of new UG courses introduced, number of students enrolled, vacant and percentage of vacancy of seats filled in during the period 2005-06 to 2009-10 is given in **Table-16**.

Table-16

Name of NIT	2005-06				2006-07				2007-08				2008-09				2009-10			
	Intake / No. of new courses	Enrolled	Vacancy	Percentage of vacancy	Intake / No. of new courses	Enrolled	Vacancy	Percentage of vacancy	Intake / No. of new courses	Enrolled	Vacancy	Percentage of vacancy	Intake / No. of new courses	Enrolled	Vacancy	Percentage of vacancy	Intake / No. of new courses	Enrolled	Vacancy	Percentage of vacancy
Allahabad	-	-	-	-	30/2	30	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bhopal	-	-	-	-	-	-	-	-	240/6	223	17	7	-	-	-	-	-	-	-	-
Calicut	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Durgapur	60/1	55	5	8	-	-	-	-	-	-	-	-	-	-	-	-	60/1	23	37	62
Jalandhar	-	-	-	-	-	-	-	-	30/1	25	5	17	-	-	-	-	-	-	-	-
Kurukshetra	-	-	-	-	120/2	116	4	3	-	-	-	-	-	-	-	-	-	-	-	-
Nagpur	-	-	-	-	60/1	59	1	2	-	-	-	-	-	-	-	-	-	-	-	-
Silchar	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	30/1	20	10	33
Surathkal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Warangal	-	-	-	-	60/1	58	2	3	-	-	-	-	-	-	-	-	-	-	-	-

Overall 16 new courses were introduced during the period of report by the aforesaid 10 NITs. Of the above, two courses introduced by NIT Allahabad got a very good response wherein all the sanctioned seats were fully utilised. However, in the case of seven NITs, the vacancy in the newly introduced courses ranged from 2 to 62 *per cent* of the total available seats whereas NIT Calicut and Surathkal did not introduce any new UG course during the reporting period. Two new courses introduced during the year 2009-10 by NIT Durgapur and Silchar received the least attraction as 62 and 33 *per cent* respectively of the total sanctioned seats remained vacant. This indicated that these two courses were not introduced after having conducted proper assessment to ascertain the need of dissemination of knowledge in the concerned fields.

B PG courses

The position of intake capacity, number of new PG courses introduced, number of students enrolled, vacant and percentage of vacancy of seats filled in during the period 2005-10 in respect of NITs is given in **Table-17**.

Table-17

Name of NIT	2005-06				2006-07				2007-08				2008-09				2009-10			
	Intake / No. of new courses	Enrolled	Vacancy	Percentage of vacancy	Intake / No. of new courses	Enrolled	Vacancy	Percentage of vacancy	Intake / No. of new courses	Enrolled	Vacancy	Percentage of vacancy	Intake / No. of new courses	Enrolled	Vacancy	Percentage of vacancy	Intake / No. of new courses	Enrolled	Vacancy	Percentage of vacancy
Allahabad	-	-	-	-	19/2	14	5	26	19/4	15	4	21	20/1	16	4	20	-	-	-	-
Bhopal	13/1	13	-	-	104/8	73	31	30	13/1	4	9	69	-	-	-	-	-	-	-	-
Calicut	-	-	-	-	102/5	91	11	11	-	-	-	-	97/6	79	18	19	21/1	21	-	-
Durgapur	18/1	17	1	6	18/1	17	1	6	-	-	-	-	36/2	35	1	3	80/4	42	38	48
Jalandhar	-	-	-	-	148/8	92	56	38	-	-	-	-	-	-	-	-	10/1	8	2	20
Kurukshetra	-	-	-	-	108/6	44	64	59	18/1	18	-	-	-	-	-	-	25/1	23	2	8
Nagpur	13/1	11	2	15	-	-	-	-	26/2	26	-	-	-	-	-	-	-	-	-	-
Silchar	-	-	-	-	-	-	-	-	18/1	5	13	72	18/1	3	15	83	40/4	23	17	43
Surathkal	-	-	-	-	-	-	-	-	74/4	56	18	24	56/3	27	29	52	-	-	-	-
Warangal	-	-	-	-	-	-	-	-	-	-	-	-	60/3	54	6	10	-	-	-	-

In total 73 new courses were introduced during the period of report by the aforesaid 10 NITs. Though, the capacity was fully utilised in one course in NIT Bhopal in the year 2005-06, one course in NIT Kurukshetra and in two courses in NIT Nagpur during 2007-08, and in one course in NIT Calicut during 2009-10, the position of vacancy in the remaining 68 newly introduced PG courses were in the range of 3-83 *per cent* of the total available seats. The position was worst in NIT, Kurukshetra, Bhopal, Silchar and Surathkal where more than 50 *per cent* of the available seats remained vacant in the courses⁹ introduced during 2006-07, 2007-08 and 2008-09 respectively.

Due to non-conducting of proper assessment for the new courses most of the seats remained vacant and the designed capacity of the infrastructure created for the purpose remained un-utilised to that extent.

NIT Kurukshetra in their reply stated (January 2011) that seats remained vacant due to high demand of civil engineers in jobs and less sponsoring of M. Tech students in Civil courses by Companies/Colleges/Institutes. The reply of the Management established the audit contention regarding introduction of new courses without conducting proper survey/assessment for the actual need of these courses.

⁹ Kurukshetra – six courses – vacancy 59 *per cent*, Bhopal – one course – vacancy 69 *per cent*, Silchar – one course – 72 *per cent* in 2007-08 and one course – vacancy 83 *per cent* in 2008-09, and Surathkal – three courses – vacancy - 52 *per cent*.

3.3.4 Lapses in admission system

A Counselling

After filling up seats in UG courses through CCB, some seats still remain vacant which are filled up by individual NITs through the process of advertisement called physical counselling. It was, however, observed that 63 seats in the streams of (i) Civil Engineering, (ii) Electronics and Communication Engineering, (iii) Mechanical Engineering, (iv) Electrical Engineering, (v) Industrial Engineering Management, (vi) Computer Engineering and (vii) IT Engineering remained vacant in NIT Kurukshetra during the year 2009-10 which it did not fill up through the process of advertisement and physical counselling. This resulted not only in depriving the opportunity to the eligible candidates but also non-utilisation of the resources to that extent.

NIT, Kurukshetra replied (January 2011) that all the seats during admission process were filled up during 2005-06 to 2007-08 but later on some students surrendered their seats. It further replied that permission to fill up 63 vacant seats in the Institute was not granted by the CCB during 2009-10 after final round of counselling as admission process was closed through CCB.

The reply of the Institute was not convincing because the admission process through CCB only was closed but process of filling up of seats through physical counselling was open. The Institute did not explore the avenues of filling up these vacant seats through physical counselling resulting in denial of opportunity to 63 eligible candidates.

B Vertical mobilization without entrance examination

Six employees of NIT Hamirpur holding three years' engineering diploma were allowed admission in various B. Tech courses directly in second year (3rd semester) in the academic session 2010-11 on the basis of the recommendations of the Senate (April 2010) without clearing AIEEE. The decision of the Senate was ratified by the BOGs (May 2010). The vertical mobility of diploma holders to degree courses was not permitted as the admission in degree courses are recommended by CCB on the basis of merit acquired by the candidates in AIEEE.

Director, NIT Hamirpur stated (December 2010) that diploma holders' technical staff was allowed admissions to provide opportunity to enhance their qualification and skills. The reply was not convincing as it was against MHRD guidelines for admission to technical institutes.

3.3.5 Teacher : student ratio

The faculty position in various NITs as against norms fixed by MHRD *vis-à-vis* men-in-position (including faculty appointed on contract basis) with

reference to intake capacity of students as on 31 March 2010 is given in **Table-18**.

Table-18

Sl. No.	Name of the NIT	Number of students	Number of faculties as per norms of 1:12	Existing number of faculties	Shortage over norms
1	Allahabad	4347	362	163	199
2	Bhopal	3763	314	238	76
3	Calicut	3677	306	185	121
4	Durgapur	2041	170	166	4
5	Jalandhar	2238	187	155	32
6	Kurukshetra	2976	248	232	16
7	Nagpur	2827	236	161	75
8	Silchar	1692	141	86	55
9	Surathkal	4498	375	228	147
10	Warangal	4592	383	174	209
Total		32651	2722	1788	934

It may be seen from the above table that the existing number of faculty was less than the prescribed norms in these NIsT. Despite heavy shortages of faculty, the quality of education in these NIsT have not been deteriorated as the pass percentage of students in the five streams remained in the range of 71.13 *per cent* and 100 *per cent* during the years 2005-10 as discussed in paragraph No. 3.3.6.1 below. If calculated on an average basis by taking total number of available faculty sufficient for teaching total number of existing students of 10 NIsT, one faculty is required for 18 students. This indicated that the norms of one faculty per 12 numbers of students have not been fixed on realistic basis and needs re-assessment.

3.3.6 Position of students' enrolment, percentage of pass out, campus selection, etc.

3.3.6.1 Position of pass out students

The year-wise position of number of students enrolled, passed out and percentage of pass out in 10 NIsT in five selected branches during the period 2005-10 given in **Annexe-V** revealed that:

- the pass percentage of students was satisfactory in NIsT Bhopal, Durgapur, Jalandhar, Nagpur, Surathkal and Warangal which ranged between 85.28 *per cent* and 100.00 *per cent* during the period 2005-10.
- the pass percentage of students in NIsT Calicut, Kurukshetra and Silchar remained below 90 *per cent* and ranged between 71.13 *per cent* and 89.84 *per cent* during the period 2005-10.
- NIT Allahabad registered sharp decline in the pass percentage of students from 96.62 *per cent* in the year 2006-07 to 71.58 *per cent* in the year 2009-10.

3.3.6.2 Campus selection of students

The position of number of students eligible, selected and percentage of students selected for campus selection in 10 NITs in five selected branches during the period 2005-10 given in **Annexe-V** revealed that the percentage of students selected in campus selection remained below 90.00 *per cent* in NITs Bhopal (2005-06 and 2009-10), Jalandhar (2005-06), Nagpur (2005-06 and 2008-09), Silchar (2005-06), Surathkal (2005-06 and 2008-10) and Warangal (2005-06) which ranged between 82.08 *per cent* and 89.74 *per cent*. In remaining cases the percentage of selection of students in campus selection was satisfactory between 90-100 *per cent*.

3.3.7 Accreditation/recognition of courses

Accreditation is a process of quality assurance by the National Board of Accreditation (NBA) and is based on the critical evaluation of a set of eight broad based criteria *viz.* (i) organization and governance; (ii) financial resources; (iii) allocation and utilization; (iv) physical resources (central facilities); (v) human resources (faculty and staff, students' teaching – learning processes); (vi) supplementary process; (vii) research and development and (viii) interaction efforts. Institutes seeking accreditation of their programmes are required to have passed out at least two batches of students in the respective programmes and are expected to satisfy each of the eight criteria individually. All degree and post-graduate programmes of the Institute are covered under this accreditation scheme.

The position of number of existing courses and number of courses accredited / not accredited in respect of UG and PG courses as on 31 March 2010 in respect of 10 NITs is given in **Table-19**.

Table-19

Sl. No.	Name of NIT	Total number of courses		Number of courses accredited		Number of courses not accredited	
		UG	PG	UG	PG	UG	PG
1.	Allahabad	9	22	7	0	2	22
2.	Bhopal	13	21	0	0	13	21
3.	Calicut	10	25	1	5	9	20
4.	Durgapur	9	19	1	7	8	12
5.	Jalandhar	9	12	7	0	2	12
6.	Kurukshetra	7	16	0	0	7	16
7.	Nagpur	9	14	7	5	2	9
8.	Silchar	5	5	5	0	0	5
9.	Surathkal	9	28	8	24	1	4
10.	Warangal	8	29	7	13	1	16
Total		88	191	43	54	45	137

Of the 88 UG and 191 PG courses, 43 UG and 54 PG courses were got accredited whereas in the remaining 45 UG and 137 PG courses no

accreditation was obtained from NBA. This indicated that the quality of education of these courses cannot be ensured on the basis of the criteria fixed by the NBA.

3.3.8 Memorandum of Understanding

In order to improve academic standards, the institutes are in the process of signing Memorandum of Understandings (MOU) to create collaboration with reputed academic institutes within and outside India to bring the working of the NIsT at par with international standards.

The details of NIsT signing of MOU during the period 2005-10 among the ten NIsT are given in **Table-20**.

Table-20

Sl. No.	Name of NIT	MOU signed with other academic institutes	
		Within India	Outside India
1.	Jalandhar	11	1
2.	Kurukshetra	8	3
3.	Surathkal	14	13
Total		33	17

The remaining seven NIsT did not sign any MOU during the period 2005-10 with any other Institute of repute either within or outside India.

3.3.9 Sponsored research

Research and development activities constitute critical components of an academic institution. The faculty members of the institute undertake various research and development activities sponsored and funded by Government departments' viz. MHRD, AICTE, Science and Technology, Biotechnology, Information Technology. Besides, private organizations and autonomous bodies of the State/Central Governments also assign research work to the NIsT.

The details of sponsored research projects undertaken in NIsT, Calicut and Kurukshetra during 2005-10 and which were required to be completed by 31 March 2010 are given in **Table-21**.

Table-21

(₹ in lakh)

Sl. No.	Name of NIT	Number of projects		Grants		Balance grants
		Undertaken	Completed	Received	Utilized including refund	
1.	Calicut	32	8	346.35	199.85	146.50
2.	Kurukshetra	28	19	270.78	250.77	20.01
Total		60	27	617.13	450.62	166.51

Report No. 13 of 2011-12

Of the 60 research projects undertaken by these NIsT during the period 2005-10, only 27 projects were completed before 31 March 2010. The remaining 33 projects were in progress as of 31 March 2010 without seeking / grant of extension in the time limit and leaving unutilized grant of ₹ 166.51 lakh.

In NIT Jalandhar, grant amounting to ₹ 20.00 lakh was received in September 2005 from MHRD under the scheme “Evaluation of in-cylinder combustion of bio-diesel”. The scheme was to be completed by September 2008. No study was conducted and the grant was lying unutilized. In another case, relating to the study “Soft computing based technique for modeling of engineering and medical imaging system”, the Institute received grant amounting to ₹ 8.00 lakh in May 2004 from MHRD. The scheme was to be completed by July 2007. Only a small amount of ₹ 54 thousand was incurred on the study.

The Director, NIT Jalandhar admitted (January 2011) the lapse in monitoring the research projects and assured to take care of the same in future.

In NIT Kurukshetra, grant amounting to ₹ 4.00 lakh was received in 2006 from National Rural Road Development Agency (NRRDA), GOI, New Delhi under the scheme “Rural roads pavement performance study”. The scheme was to be completed by March 2009. No study was conducted and the amount was refunded to the NRRDA in April 2009 after retaining it for more than three years.

3.3.10 Patents

Of the ten NIsT, the details of patents applied for and obtained by three NIsT are given in **Table-22**.

Table-22

Sl. No.	Name of NIT	Number of patents	
		Applied for	Obtained
1.	Jalandhar	12	1
2.	Kurukshetra	5	3
3.	Surathkal	4	0
Total		21	4

As is evident from the above table, out of 21 patents applied for, only four patents were obtained. The remaining seven NIsT¹⁰ did not apply for patents indicating that these institutes had either not conducted any major research work or the research work done did not end up in registration of patent.

¹⁰ Allahabad, Bhopal, Calicut, Durgapur, Nagpur, Silchar, and Warangal.

Recommendations

- *Proper system should be evolved to ensure that all the seats are filled up in the institutes by eligible candidates after adopting proper procedure.*
- *Periodical review may be carried out for assessing the requirement in various fields to identify and prescribe new courses of study.*
- *The Ministry may consider re-assessing the norms of teacher – student ratio and fix the same on realistic basis.*
- *Appropriate steps may be taken to improve the selection of students in the campus selection for placement.*
- *Accreditation of all UG and PG courses need to be obtained from NBA.*

3.4 Human Resource Management

As per organizational set up, the administration of the NIsT is looked after by a Director assisted by a Deputy Director and a Registrar, while academic functions are looked after by Deans and heads of respective departments. The MHRD has set out the norms to observe by all the NIsT in the maintenance of ratios between teaching – non-teaching staff, faculty – students as under:

Teaching – non teaching staff = 1: 1.5 – 1:2 (1:1.1 from May 2008)

Faculty – Students ratio:

for Post graduate courses = 1: 10} 1:12 from May 2008

for undergraduate courses = 1: 15} for both PG and UG courses

Deficiencies noticed in respect of human resource management are discussed below:

The post of Deputy Director remained vacant in three NIsT viz Jaipur, Kurukshetra and Silchar whereas the post of Registrar was remained vacant in two NIsT of Patna and Silchar during the period of report. These Institutes should fill up the statutory posts for their smooth functioning.

3.4.1 Teaching: non-teaching staff ratio

The MHRD directed (February 2003) to comply with the recommendations of the Expenditure Reforms Commission regarding abolition of all posts lying vacant for more than one year and ratio between teaching and non-teaching posts in the range of 1:1.5 to 1:2. Subsequently, the MHRD, while issuing (May 2008) instructions for making proposals for creation of posts by the NIsT revised this ratio to 1:1.1 for all institutions. Against the above norms the position of teaching and non-teaching staff in all the NIsT as on 31 March 2010 as indicated in **Table-23**.

Table-23

Sl. No.	Name of the NIT	No. of teaching staff	No. of non-teaching staff	Ratio of teaching to non-teaching staff
1	Agartala	96	87	1:0.9
2	Allahabad	163	280	1:1.7
3	Bhopal	238	390	1:1.6
4	Calicut	185	216	1:1.2
5	Durgapur	166	231	1:1.4
6	Hamirpur	129	292	1:2.3
7	Jaipur	187	257	1:1.4
8	Jalandhar	155	219	1:1.4
9	Jamshedpur	102	229	1:2.2
10	Kurukshetra	232	451	1:1.9
11	Nagpur	161	234	1:1.5
12	Patna	82	140	1:1.7
13	Raipur	178	343	1:1.9
14	Rourkela	200	301	1:1.5
15	Silchar	86	251	1:2.9
16	Surat	214	125	1:0.6
17	Surathkal	228	248	1:1.1
18	Tiruchirappalli	246	475	1:1.9
19	Warangal	174	477	1:2.7

It may be seen from the above table that except in NIT Agartala, Surat and Surathkal in all the remaining NIT non-teaching staff were more than the norms. These Institutes did not bring the required level of non-teaching staff even after two years of MHRD directives of May 2008. The ratio of non-teaching staff to teaching staff was even more than the pre-revised norms of 1:2 in NIT Hamirpur, Jamshedpur, Silchar and Warangal.

It was further observed that the contract based non-teaching staff members between five and 27 were deployed in five NIT¹¹ during 2009-10 despite the fact that the available non-teaching staff was already in excess over the norms. In case of NIT, Jalandhar, Kurukshetra and Raipur there was shortage of 22, 14 and 68 staff members respectively but the Institutes deployed 35, 192 and 148 contract based non-teaching staff during 2009-10 resulting in to excess deployment of 13, 178 and 80 staff members as detailed in **Annexe-VI**.

3.4.2 Performance evaluation of faculty

In order to improve the standards of teaching in a reputed institute, a mechanism to assess the performance of the faculty should be evolved. There should be laid down guidelines to obtain the feedback from the students and the stakeholders to improve the teaching standards of the Institute and the performance of the students.

¹¹ Bhopal, Durgapur, Hamirpur, Rourkela and Silchar.

It was observed that out of 19 NIsT, feedback from the students was not obtained in case of four NIsT¹². However, in NIT Bhopal, online student feedback system (MPONLINE) was adopted and self performance report was filled in by the faculty which was evaluated by the Heads of the Departments / Director.

Recommendations

- *The sanctioned and available strength of the non-teaching staff should be kept at par with the norms.*
- *Suitable mechanism to monitor or assess the performance of faculty should be evolved.*

3.4.3 Skill up-gradation of teaching staff

The data relating to training imparted to teaching staff during 2005-10 for up-gradation of their skills revealed the following:

- No training was imparted to the teaching staff in NIT Agartala and Patna.
- No in-house training was imparted to the teaching staff in NIT Calicut, Durgapur, Rourkela, Silchar and Warangal.
- No teaching staff was sent abroad for training in NIT Jamshedpur and Raipur.

3.4.4 Skill up-gradation of non- teaching staff

Data relating to up-gradation of skills of non-teaching staff revealed:

- No training was imparted in NIsT at Agartala and Patna.
- No in-house training was imparted to the non-teaching staff in NIsT at Durgapur, Kurukshetra, Silchar and Surathkal.
- No non-teaching staff was sent for industrial training in NIsT at Calicut, Hamirpur, Jamshedpur and Raipur.
- No non-teaching staff was sent abroad for training in 15 NIsT¹³.

3.4.5 Non-adherence of Recruitment policy

As per condition of recruitment policy guidelines issued by AICTE in March 2000, direct recruitment to all cadre posts should be based strictly on merit and there would be no relaxation of the prescribed educational qualifications, experience, etc.

¹² Agartala, Durgapur, Jaipur and Raipur.

¹³ Agartala, Calicut, Durgapur, Hamirpur, Jaipur, Jalandhar, Jamshedpur, Kurukshetra, Patna, Nagpur, Raipur, Rourkela, Silchar, Surat and Surathkal.

The educational qualification and experience in respect of posts of Lecturer and Assistant Professors appointed in management programme in technical institutes are given in **Table-24**.

Table-24

Sl. No.	Name of post	Educational qualification	Experience
1.	Lecturer	First class Master's Degree in Business Management/ Administration/other relevant management related discipline.	No minimum requirement.
2.	Assistant Professor	Ph. D Degree or a fellowship of IIMs, ICA or ICWA with first class Master's Degree in Business Management / Administration / other relevant management related discipline.	Three years experience in teaching / industry / research / industry / profession.

In NIT, Durgapur one person having a second class M.Com. degree and two persons having Ph. D degree with first class M.A. (Economics) degree and ICWAI with first class M. Sc. (Mathematics) degree were appointed as Lecturer and Assistant Professors for MBA respectively in contravention of the above recruitment policy.

In exit conference held in January 2011, the Director stated that there were few deviations from set norms of AICTE in recruitment of various teaching staff and assured that all corrective measures would be taken in respect of the appointments.

In NIT Bhopal, 92 persons not having Ph. D degree were appointed / promoted to the post of Associate/Assistant Professors in the year 2005 in contravention of recruitment policy.

In reply, Director, NIT Bhopal stated (January 2011) that the appointments of non-Ph. D were made in accordance with AICTE notification which would be provided later on. However, no such notification was provided to audit.

Recommendation

➤ *Teaching and non-teaching staff should be appointed in accordance with the Recruitment policy.*

3.5 Infrastructure management

3.5.1 Encroachment of NIS T Land

The land in possession and encroached upon in respect of three NIS T is given in **Table-25**.

Table-25

(Land in acres)					
Sl. No.	Name of NIT	Total land	Land in possession	Encroached land	Remarks
1.	Jaipur	480.025	302.750	177.275	Land dispute pending with various courts.
2.	Patna	36.000	31.707	4.293	Matter taken up with District Administration
3.	Silchar	328.800	228.800	100.000	Matter taken up with District Administration Silchar in 1994
Total		844.825	563.257	281.568	

Of the total 844.825 acres of land belonging to three NIsT, land measuring 281.568 acres was encroached upon which is under various stages of litigation/correspondence with the District Administration.

3.5.2 Ineffective record keeping of land

In terms of instructions issued by MHRD in June 2004, all the land legally belonging to the Institutes should be transferred from the erstwhile REC in the name of NIT, which must also maintain a Register of Original Records of Rights in respect of all the land of the Institute and keep them in safe custody.

In a test check, it was revealed that in case of two NIsT at Kurukshetra and Silchar, the title of the land measuring 292 acres and 328.8 acres respectively handed over to the REC Society, Kurukshetra and REC Society, Silchar by respective State Governments had not been transferred in the name of the NIsT.

3.5.3 Shortage of class rooms and lecture halls

As per AICTE norms for existing technical institutions, number of class rooms in the Institute should be equal to the total strength of students multiplied by a factor 0.75 divided by 60 (by taking 60 as the strength of students for each course). Similarly, number of lecture halls should be equal to the total strength of students multiplied by a factor 0.50 divided by 60.

Of the 17 NIsT, shortfall of class rooms ranged between three and 25 in four NIsT at Allahabad (24), Jaipur (25), Jalandhar (3) and Tiruchirappalli (22). The shortage of lecture halls ranged between two and 37 in 12 NIsT as on 31 March 2010 as detailed in **Annexe-VII**. Thus, the students did not have conducive study environment. Class rooms and lecture halls should be provided as per norms.

3.5.4 Adequacy of library facility and computers

As per AICTE norms for existing technical institutions, each Institution should have a library and at least one computer for each set of four students.



Library, NIT Kurukshetra (Haryana)

It was appreciating to note that all the NITs under review were having library as on 31 March 2010. However, the shortage of computers as compared to the norms of one computer per four students ranged between two and 569 in six NITs¹⁴ as on 31 March 2010. However, computers were in excess over the norms at NIT, Allahabad (52), Bhopal (166), Calicut (307), Hamirpur (394), Jalandhar (465), Nagpur (235), Raipur (701) Rourkela (253), Silchar (223), Surathkal (885) and Tiruchirappalli (271) as detailed in **Annexe-VIII**. Computers should be provided in each NIT as per norms.

3.5.5 Capacity versus occupancy in hostels

As per section 38 (1) of the Statute, every Institute shall be a residential institution and all the students and research scholars should be provided accommodation in the hostels and halls of residence built by the Institute for the purpose.



Ladies hostel, NIT Calicut (Kerala)

¹⁴ Agartala - (160), Jaipur - (259), Jamshedpur - (96), Kurukshetra - (569) Patna - (2) and Warangal - (196).

Total number of students, number of hostel seats available, number of students accommodated in the hostels, number and percentage of students who could not be provided hostel facility and overcrowding of hostels in 2009-10 in each NIT is given in **Annexe-IX**. The analysis of the data revealed:

- In 15 NITs at Allahabad, Bhopal, Calicut, Hamirpur, Jaipur, Jalandhar, Jamshedpur, Kurukshetra, Nagpur, Patna, Raipur, Rourkela, Surat, Surathkal and Tiruchirappalli, the hostel facilities were not adequate to the size of the number of the total students due to which these Institutes were not in a position to offer residential accommodation to all of its students as per requirement of the Statute.
- In case of three NITs at Kurukshetra, Nagpur and Silchar, 28, 262 and 43 boy students respectively were not provided with the hostel accommodation despite having the capacity to accommodate due to which, equal number of beds remained vacant as on 31 March 2010 in these NITs.
- Similarly 45 girl students stayed outside the hostel accommodation in NIT, Silchar despite having the hostel facilities for equal number of students.
- Due to shortage of hostel accommodation 13 NITs at Bhopal, Calicut, Hamirpur, Jaipur, Jalandhar, Jamshedpur, Kurukshetra, Patna, Raipur, Rourkela, Surat, Surathkal and Tiruchirappalli accommodated more number of students in both boys and girls hostels. The excess as on 31 March 2010 ranged between 21 and 551 students in boys hostel and 19 and 225 students in girls hostel over the available seats.

3.5.6 Medical facilities and its adequacy

During March 2009 GOI, MHRD issued instructions for providing essential medical facilities with all types of modern as well as sophisticated scientific instruments including round the clock arrangement of medical officer, nurse, other staff and medicine shop in the campus itself to provide all types of medical care. A test check of the records relating to the medical facilities revealed the following:

- no medical facilities were provided in NIT, Patna
- only part time doctor was available in Out Patient Department in NIT Jamshedpur.
- One lady doctor was available in NITs, Bhopal and Jaipur.
- No lady doctor was available in NIT, Kurukshetra even though the strength of girl students was 481 in 2009-10.
- Ambulance facility was not available in five NITs¹⁵ to cater to the needs of sick students in emergent medical situations.

¹⁵ Calicut, Jaipur, Kurukshetra, Patna and Surathkal.

Recommendations

- Ministry should ensure that infrastructural facilities is commensurate with the total strength of students of each NIT.
- Adequate medical facilities as per norms including adequate staff should be provided in each NIT.

3.6 Other points of interest

3.6.1 Absence of uniform guidelines for treatment of fee received from Testing and Consultancy jobs

Section 21 (1) of the Act provides that all moneys provided by the Central Government, all fees and other charges received by the Institute, all moneys received by the Institute by way of grants, gifts, donations, benefactions, bequests or transfers and in any other manner or from any other source shall be credited into a fund maintained by the Institute.

For testing and consultancy jobs, a faculty member is appointed as coordinator of the consultancy team. In the case of inter disciplinary areas, the coordinator is appointed from one of the departments who co-ordinates the consultancy project. The consultancy amount is worked out on the basis of expected expenditure and the manpower requirement.

The details of testing and consultancy jobs undertaken by four NITs during 2005-10 are given in **Table-26**.

Table-26

(₹ in crore)

Sl. No.	Name of NIT	Number of jobs undertaken	Fees received	Share of			
				Expenditure	IDF	Staff	Total
1.	Bhopal	1087	4.47	0.38	0.98	1.88	3.24
2.	Calicut	1719	1.35	0.24	0.12	0.55	0.91
3.	Hamirpur	1409	1.39	1.33	0.80	0.53	2.66
4.	Kurukshetra	8944	6.86	0.81	2.38	3.45	6.64
Total		13159	14.07	2.76	4.28	6.41	13.45

These NITs received consultancy fees amounting to ₹ 14.07 crore for undertaking 13,159 consultancy jobs during the period from 2005-10. An expenditure of ₹ 2.76 crore was incurred on these jobs and the Institute distributed ₹ 4.28 crore and ₹ 6.41 crore between Institute Development Fund (IDF) and the staff respectively without any guidelines of GOI on the subject.

The Director, NIT Bhopal replied (October 2010) that remuneration to staff members were paid as per norms of Industrial Consultancy and Testing Service Centre (ICSC) Rules.

The Director, NIT Hamirpur replied (October 2010) that the distribution of consultancy fee was made as per compendium of rules of the Institute.

The Director, NIT Kurukshetra replied (October 2010) that distribution was made with the approval of the BOGs in a meeting wherein a representative of the Ministry was also present. The replies were not convincing as there were no specific guidelines of GOI for distribution of the consultancy fees between IDF and staff.

NIT Patna decided in May 2005 that 50 per cent of fee charged for consultancy work and 70 per cent of net income from testing work was to be put into the resource generation fund of the Institute and the rest was to be distributed amongst personnel doing the actual consultancy or testing work. It was observed that the Institute, in deviation of their own guidelines, did not deposit the funds in resource generation funds as given in **Table-27**.

Table-27

(₹ in lakh)

Year	Net testing fee received after incurring expenditure	Amount to be deposited in corpus fund	Amount actually deposited in corpus fund	Short deposited in corpus fund
2005-06	66.85	46.80	10.60	36.20
2006-07	24.62	17.23	21.75*	(-) 4.52
2007-08	57.77	40.44	17.71	22.73
2008-09	44.06	30.84	18.12	12.72
2009-10	90.05	63.04	25.40	37.64
Total	283.35	198.35	93.58	104.77

* also includes balance amount deposited for the year 2005-06.

Thus, the Institute distributed testing fee amounting to ₹ 1.05 crore amongst the staff in excess of their own guidelines.

Director, NIT Patna replied (December 2010) that the distribution was made on the pattern of IIT Kanpur. The reply was not convincing as the Institute violated its own guidelines for distribution of consultancy and testing fees.

The consultancy fee for the period 2005-10 amounting to ₹ 42.90 lakh was still recoverable from Himachal Pradesh Public Works Department (Civil Engineering Department) on account of consultancy work rendered by NIT Hamirpur.

Director, NIT Hamirpur replied (October 2010) that steps were being taken to recover the outstanding consultancy fee from the department.

3.6.2 Non utilization of costly equipment

Rule 64 of GFR, inter-alia provides that accounting authority of a department shall be responsible and accountable for financial management and for the effective, efficient, economical and transparent use of the resources and shall take effective and appropriate steps to avoid unauthorized, irregular and wasteful expenditure.

NIT Hamirpur purchased the following four equipments for teaching and research work in Electrical Engineering department between May and August 2009 as per **Table-28**.

Table-28

			(₹ in lakh)
Sl. No.	Name of the equipment	Bill No. and date	Cost
1.	Insulation analyzer model No. M-4000	28004, dated 16.5.2009	39.90
2.	High performance chromatograph with accessories	28112, dated 27.6.2009	12.19
3.	Combined TGA-DTA-DSC	28115, dated 30.6.2009	26.47
4.	Fourier Transform Infrared spectrometer	28206, dated 29.8.2009	30.90
Total			109.46

It was observed that these equipments were not in use since the date of their purchases till date (**October 2010**) due to non-availability of accessories and humidity and temperature control equipment in the laboratory resulting in wasteful expenditure of ₹ 1.09 crore.

Director, NIT Hamirpur replied (October 2010) that the work of laboratory was in progress. The reply establishes the audit contention. Supply order of equipments should be placed after making proper arrangement for their installation.

3.6.3 Manuals

Availability of easy to follow manuals which suits the nature of Institute are essential for smooth and proper functioning of Finance department, preparation of Accounts, adoption of correct office procedures, placement of purchase orders, floating of tenders, inquires, award of contracts, execution of agreements, etc. Manuals also help in taking up various research projects and consultancy jobs in systematic manner and their monitoring. Internal Audit manuals also help an institution to conduct the audit of transactions effectively and efficiently. The position of various manuals in various NITs is described below:

- Manuals relating to office procedure, finance, accounts, purchases and contracts, works and internal audit were not prepared by 13 NIsT¹⁶.
- Five NIsT¹⁷ have their own purchases and contracts manual.
- Internal audit manual has been prepared by three NIsT at Allahabad, Rourkela and Tiruchirappalli.

Steps may be taken to prepare all the manuals for effective and efficient working of NIsT.

3.6.4 Management Information System (MIS) relating to academic programmes

In NIT Raipur there was no formal system of documentation and compilation of various reports in relation to academic activities. The Institute had not engaged any agency or IT based solutions for capturing or compiling such information. The existing MIS pursued by the management only ensures the submission of reports on unspent balance and requirement for grants, preparation of annual accounts and annual utilization certificates to MHRD. The Institute had also not adopted any parameters or rating system enabling inter-departmental and intra-departmental comparison of their performance.

In NIT Surat, out of six modules, one module relating to tools and plants (T and P) was completed whereas remaining five modules relating to academic and exams, store, estate, hostels, accounts and establishment were under progress.

3.6.5 Evaluation by external agency

An external agency, National Association of Software and Services Companies (Nasscom) Strategic Review, India conducted the survey (called Dataquest survey) of technical institutes for the first time in the year 2005 and subsequently in the year 2007 in collaboration with International Data Corporation. The survey focussed on various parameters *viz.* infrastructure, research, interface with industries, perception of recruiters for campus placement and academic development of the Institute for ranking of various technical institutes across the country.

The position of various NIsT amongst the first 20 ranked technical Institutes as per Dataquest survey results (published in the years 2005 and 2007) is indicated in **Table-29**.

¹⁶ Agartala, Allahabad,, Calicut, Durgapur, Hamirpur, Jaipur, Jalandhar, Jamshedpur, Nagpur, Patna, Raipur, Silchar and Surat.

¹⁷ Bhopal, Kurukshetra, Rourkela, Tiruchirappalli and Warangal.

Table-29

Sl. No.	Name of NIT	Year 2005		Name of NIT	Year 2007	
		Ranking	Composite score		Ranking	Composite score
1.	Warangal	7 th	70.0	Warangal	8 th	63.2
2.	Tiruchirappalli	8 th	67.6	Tiruchirappalli	12 th	61.4
3.	Surathkal	11 th	64.2	Calicut	15 th	58.2
4.	Allahabad	12 th	62.1	Rourkela	16 th	57.9
5.	Rourkela	17 th	58.5	Allahabad	17 th	57.1
6.	Kurukshetra	18 th	57.5	Hamirpur	20 th	55.3

Thus, NIS T Warangal, Tiruchirappalli and Allahabad showed downward trend in their overall rankings as well as composite scores in the year 2007 as compared to the year 2005.

NIT Rourkela improved its overall ranking from 17th to 16th in the year 2007 but its composite score slipped from 58.5 in the year 2005 to 57.9 in the year 2007.

NIT Hamirpur became 20th ranked institute with composite score of 55.3 in the year 2007.

NIS T, Surathkal and Kurukshetra were placed at 11th and 18th rank with composite scores of 64.2 and 57.5 respectively in the overall rankings of first 20 technical institutes in the country during the year 2005. However, in the second Dataquest survey results published in the year 2007 these NIS T could not score even 55.3 to find a place among first 20 ranks.

Thus, the overall performance of the Institutes had shown downward trend when measured against the accepted parameters for ranking of technical institutes.

4 Internal control

4.1 Internal audit

With a view to improve quality of work, reduce errors, omissions and irregularities, a system of internal audit should be put in place in NIS T to conduct audit of all areas of functioning including the audit of financial transactions. As per Rule 22 (iii) of the Statute for all NIS T, a post of Audit Officer has been created to conduct pre-audit of all the financial transactions of the Institutes.

No Audit Officer was posted and no internal audit system was in place in 13 NIS T¹⁸ whereas in NIT, Bhopal one retired person had been appointed as internal audit officer after October 2009 on contract basis but he was not assigned the duties of internal audit.

Internal audit system was in existence in five NIS T (Calicut, Durgapur, Hamirpur, Jalandhar and Surathkal). Due to absence of accounting and audit

¹⁸ Agartala, Allahabad, Jaipur, Jamshedpur, Kurukshetra, Nagpur, Patna, Raipur, Rourkela, Silchar, Surat, Tiruchirappalli and Warangal.

manuals for guidance of the staff for performing audit functions, the internal audit system was not functioning properly.

The matter was brought to the notice of the management several times through Separate Audit Reports of the Comptroller and Auditor General of India but no action was taken to set up and conduct internal audit.

4.2 Physical verification

Rule 194 of GFR provides completion of yearly physical verification of books in case of libraries having not more than 20,000 volumes. For libraries having more than 20,000 volumes and up to 50,000 volumes, such verification should be done at least once in three years. Sample physical verification at intervals of not more than three years should be done where libraries are having more than 50,000 volumes. In case such verification reveals unusual or unreasonable shortages, complete verification should be done.

In NIT Bhopal, it was noticed that periodical physical verification of library books was not done up to 2008-09. However, shortage of 31,487 library books was noticed during physical verification in 2009-10 as per details given in **Table-30**.

Table-30

(₹ in crore)

Sl. No.	Details of books	Number of books	Value of books
1.	Books in central library	22,745	1.29
2.	Books in SC/ST book bank	7,560	0.08
3.	Books in general book bank and education CDs	1,182	0.01
Total		31,487	1.38

Non-observance of rules relating to physical verification of library books resulted in loss of ₹ 1.38 crore.

The Director, NIT Bhopal replied (September 2010) that high power inquiry committee was constituted to look into the lapses, fix responsibility and identify the culprits.

Recommendation

- *Internal audit mechanism should be adopted for effective and efficient working of NIsT*

5 Conclusion

The NIsT did not make any comprehensive assessment of the requirements of the local population to prescribe new UG and PG courses. The system of financial management was deficient as the Institutes prepared their budget estimates in excess than their actual requirement resulting in unutilized funds

Report No. 13 of 2011-12

at the end of reporting period despite receiving less grants than their budget proposals. Ten test checked NIsT could not fill up full seats in UG and PG courses during the reporting period. Despite availability of eligible candidates, NIT Kurukshetra did not fill up 63 seats in UG courses through physical counselling after the same remained unfilled by CCB during 2009-10. In five NIsT, contract based non-teaching staff was deployed despite the fact that the staff was already in excess over the norms. Candidates having inadequate qualification were appointed/promoted as faculty in two NIsT. The land measuring 281.568 acres was encroached upon in three NIsT. Infrastructure facilities relating to class rooms, lecture halls and computers were not commensurate with the number of students. Internal control system did not exist in 13 NIsT.

6 Acknowledgement

We thank the management of NIsT for extending their cooperation and support during the course of this audit.

The matter was reported to the Ministry in April 2011; their reply is awaited as of June 2011.

New Delhi

Dated:

(ONKAR NATH)

Principal Accountant General (Audit)

Haryana, Chandigarh

Countersigned

New Delhi

Dated:

(VINOD RAI)

Comptroller and Auditor General of India