

## Executive Summary

Indian Institutes of Technology (IITs) are autonomous, apex institutions for engineering education and research in India. They are governed by the Institutes of Technology Act, 1961 (Act). Seven IITs were set up between 1951 and 2001. The eleventh five-year plan (2007-12) envisaged setting up of eight new IITs for the expansion and upgradation of institutions rendering technical education to meet the skilled manpower needs of the country, while also providing for social equity.

A Performance Audit (PA) on setting up of these eight new IITs (IIT Bhubaneswar (IITBBS), IIT Gandhinagar (IITGN), IIT Hyderabad (IITH), IIT Indore (IITI), IIT Jodhpur (IITJ), IIT Mandi, IIT Patna (IITP) and IIT Ropar) established during 2008-09 was taken up with the objective to assess whether creation of infrastructure, procurement of equipment and services, academic and research activities, governing and oversight and financial management was done in an economical, efficient and effective manner. Audit scope covered a period of five years from 2014 to 2019.

The major observations of the PA are as under:

### Chapter – III: Creation of Infrastructure

- All the eight new IITs commenced their academic activities initially from temporary campus and subsequently initiated construction of permanent campuses in the land allotted to them by the respective state governments. It was noticed that in IIT Hyderabad, IIT Indore, IIT Jodhpur and IIT Patna, sufficient land as envisaged (500-600 acres) by the Ministry of Education (MoE) was available while in IIT Bhubaneswar, IIT Gandhinagar, IIT Mandi and IIT Ropar, issues in allotment and transfer of land persisted even after a decade of their establishment. The lack of requisite land was a major impediment for the IITs in providing planned facilities to the students.
- Though the infrastructure works like construction of academic buildings, hostels, laboratories etc., were undertaken in a phased manner in all IITs from 2012, the pace of their creation did not correspond with the pace of envisaged increase of student/faculty. The delays were significantly high in respect of five IITs (IITH up to 56 months, IIT Mandi up to 41 months, IIT Ropar up to 39 months, IIT Gandhinagar and IITI up to 37 months).
- The non-achievement of targets of infrastructure development in a timely manner affected student intake in all eight IITs, along with timely installation of equipment and proper fund management.
- This also resulted in spill-over of the infrastructure development beyond the six years project period. This necessitated revision of the capital outlay from ₹6,080 crore to ₹14,332 crore and the project period to 13 years.

Apart from delays and upward cost revision, there were significant infirmities such as award of works to consultants/contractors on nomination basis without tender procedures

thus violating General Financial Rules, deficient contractual agreements imposing indefinite liability/financial commitments on the IITs, idling of assets created, non-provision of accessibility to the persons with disabilities and non-construction of FoB/Underpass jeopardizing the safety of students and other users. Substantial delays in supply of equipment, delays in commissioning/installation of equipment due to failure of IITs in ensuring the site readiness and making proper assessment of required accessories resulted in the laboratory/research requirement of students not being met, thus affecting the quality of their learning.

#### **Chapter – IV: Financial Management**

- Audit noticed that proportion of the internal receipts (fees, interest, consultancy works, publications etc.) to the recurring expenditure of the IITs was very low even after having been established over a decade. This forced these IITs to be heavily dependent on Government of India (GoI) grants for meeting recurring expenditure.
- In IITH, inordinate delay of three years in utilizing available funds of Japan International Cooperation Agency (JICA) loan was noticed which resulted in non-achievement of intended objective of advancement of academic and research activities in the Campus in timely manner (Phase-II).

#### **Chapter – V: Academic Programmes and Research Activities**

- Ministry of Education (MoE) envisaged an overall targeted intake of 18,880 students in the initial six years (2008-14) across eight IITs. It was noticed that only 6,224 students (33 *per cent*) could be admitted in all the eight IITs during this period, thereby not fully achieving its objectives of maximizing educational opportunity to students.
- In PG/Ph.D programmes, vacancies were observed across all eight IITs indicating a need for realistic assessment of the student intake as well as evaluation of these programmes with an objective of attracting required suitable students.
- MoE permitted increase in sanction of faculty positions linked with the increase in students i.e., sanction of faculty posts to be increased by one for every increase of students by 10 (1: 10 ratio). Despite the efforts put in by the IITs and increase in faculty recruitment from year-to-year, vacancies ranging from 5 to 36 *per cent* in faculty positions were observed in seven IITs. This inhibited speedy expansion of student intake. In the long run, the vacancies will have an impact on the quality of education as vacancies increase the workload on existing faculty in these premier institutions.
- There was inadequate representation of students belonging to reserved categories (SC/ST/OBC) in PG and Ph.D enrolment in all eight IITs, showing that the benefits of education at premier technical institutes is not reaching these students. In PG courses, the shortfall in SC student intake ranged upto 30 *per cent* (IITGN) and that of ST students ranged between seven *per cent* (IIT Ropar) and 69 *per cent* (IIT Gandhinagar). Similarly, in Ph.D courses, the shortfall ranged from 25 *per cent* (IIT Hyderabad) to 75 *per cent* (IIT Ropar) in respect of SC students and 65 *per cent* (IIT Bhubaneswar) to 100 *per cent* (IIT Jodhpur) in respect of ST students.

- In the area of research, non-government funded sponsored projects was low in all IITs. The non-government funded projects ranged from 0.35 *per cent* to 14.31 *per cent* in terms of project funds. All the eight IITs were able to attract substantial funding from government sources towards sponsored research projects. It was also noticed that though a number of patents were filed, no patents were obtained in five IITs during 2014-19 indicating the need for improvement in outcome of research activities. MoE envisaged establishment of Research and Technology Development Council in the governing structure of each IIT to provide policy guidance for research and development activities. It was noticed that the establishment of the councils was still in nascent stages in most of these IITs, thus impeding the necessary thrust required to be given to the pace of R&D activities in these IITs.

### **Chapter – VI: Governing and Oversight Bodies**

- The Act and Statutes stipulate for constituting governing bodies such as Board of Governors, Senate, the Finance Committee and the Buildings and Works Committee. Further, the Act/Statutes also provide for a Chairman of Board, Director, Deputy Director and Registrar as Officer of the IIT who are required to perform such duties as may be prescribed under the Act and the Statutes. It was noticed that inadequate supervision by the governing bodies led to delays in execution/completion of the infrastructure works, thereby impacting *inter alia* student intake, introduction of courses, effective execution of research activities etc., as observed in the report.

