

CHAPTER-13

TECHNICAL EDUCATION

The Government of NCT of Delhi is committed to create quality infrastructure for Higher and Technical Education; educated and skilled youth is the backbone of a vibrant economy. Government has been making systematic planning and developing policies to improve quality of technical/vocational education. There are 04 technical universities, 08 colleges / Institutes and 09 polytechnics (now Institutes of Technology) functioning under administrative control of Department of Training & Technical Education. The NSIT is being upgraded to University from forthcoming academic session. In order to promote and encourage Higher and Technical Education as also advanced research the government in 1998 set up Guru Gobind Singh Indraprastha University as affiliating university. The Government has setup three Technical Universities for imparting training in major Engineering Disciplines and Information Technology. The Indira Gandhi Delhi Technical University for Women (IGDTUW) has been set up exclusively as an University for Women for pursuing graduate and post-graduate courses in Information Technology and Robotics besides other conventional disciplines. The Indraprastha Institute of Information Technology has been set up by the Government for promoting cutting edge research in IT besides imparting quality education in the field. The Delhi Technological University (DTU) was set up as a state university to provide graduate and post-graduate program in conventional engineering subjects besides facilities for research. The Delhi Pharmaceutical Sciences & Research University (DPSRU) made functional from academic session 2015-16. It is proposed to take up major expansions of all these universities to provide World Class Facilities for technical teaching and advance research in fields of electronics and information technology. The Department has initiated the proposal to establish Delhi Skill University to promote skill education at various levels. Accordingly, a new scheme was created for establishment of Delhi Skill / Vocational University. The Government has also plan to make Delhi a Start-up Hub. A new Scheme for establishment of Incubation Centre in Universities / Institutions under the Govt. of NCT of Delhi was also introduced during 2015-16.

Delhi has become a knowledge city and an Educational Hub with a wide network of technical and professional institutions. It attracts students from all parts of the country as well as from abroad. Delhi has more than 100 Degree and PG level Professional and Technical Education Institutions affiliated to GGSIP University, Delhi University and other Universities. There are 20 Diploma Level Institutions which includes 12 Govt. / aided Polytechnics Institutions and 8 Private Sector Institutions. The existing 09 Govt. Polytechnics has been upgraded to the Degree Level Institutions to run B.Voc. Programmes from the Academic Session 2015-16. The number of Institutions

for certificate level courses in the form of ITIs and ITCs are 82 which includes 19 Govt. I.T.Is and 63 Private Sector Industrial Training Centres.

This Sector has a total plan outlay of ₹388Crore in Annual Plan 2016-17. Major allocation in this year includes grant of ₹78Crore for Delhi Technical University, ₹38Crore for NSIT, ₹21Crore for Indira Gandhi Delhi Technical University for Women and loan of ₹60Crore for IIIT. The construction of Phase-II of IIIT-D already started

New initiatives / plan programmes taken up in 2015-16:

-) Waive off tuition fee for differently abled diploma students was implemented. Training scheme of MHRD for promotion of livelihood skills of differently abled students was implemented.
-) Online submission of applications for conduct of Common Entrance Test (CET) introduced in 2014. For the first time 50,199 students applied online. IT is proposed to introduce common online application and counselling for admission to all the universities of Government;
-) The project initiative on National Mission on Education through ICT (NMEICT) to promote IT literacy through open source software in Polytechnics / Institutions of Delhi as teaching tool taken up.

I. DIRECTION & ADMINISTRATION

1. Modernization of DTTE

Annual Plan Outlay 2016-17: ₹ 130 lakh

To keep pace with the increasing workload and to efficiently handle the administrative responsibility, Directorate of Training & Technical Education is required to gear up. Various administrative services are required to be delivered smoothly and efficiently through computerization / automation of service delivery mechanisms.

Department is in the process to connect all the Institutes of Technology under its control through networking. For the purpose of effective monitoring of the functions of various Institutes of Technology and based on the recommendation of Delhi Knowledge Commission, all the libraries of Institutes of

Technology will be digitalized and connected through DELNET. For this purpose all the Polytechnics are required requisite software/hardware for the purpose of digitalization and membership of DELNET. The subscription fee of membership is being revised by DELNET regularly.

At present only 9 Institutes of Technology are under the control of DTTE. Based on the recommendation of MHRD Govt. of India, Department is in the process of opening of five new Polytechnics in NCT of Delhi in North, North East, West, Central & New Delhi Districts, for the benefit of the students. A proposal for providing land is under consideration of DDA/Gram Sabha for allotment of land for 5 new Polytechnics. The possession of land for Polytechnic at Rajokri (New Delhi District) has been taken and Institute will start from academic session 2016-17

2. Board of Technical Education

Annual Plan Outlay 2016-17 : ₹ 300 Lakhs

The Board of Technical Education, established in 1961, is conducting diploma level examinations in various Engineering and Non-Engineering courses being run by the government and privately managed affiliated institutions. In addition, the Board is also entrusted with various other activities like revision of curriculums, affiliation of privately managed institutes and monitoring. Full time diploma courses in 31 disciplines and part time diploma courses in 05 disciplines are under the control of BTE. To improve the working of the Board with transparency, it is proposed to modernize the entire examination process and to develop independent dynamic website of BTE and latest software which may expedite examination and result preparation process. Revision of Curriculum as per market demand of Industries in the State is another area which needs attention. For maintenance of statistical data, Planning and Statistical Cell is proposed to be set up in BTE.

3. Re-organization & Restructuring of existing facilities in Polytechnics

Annual Plan Outlay 2016-17 : ₹1940Lakhs

Based on the blue print of the action plan of the Delhi Government for the implementation of the National Knowledge Commission recommendations, and Skill India Scheme the department aims to strengthen more ITI / Institutes of Technology by providing infrastructure and faculty for B. Voc. program. Efforts are being made to revitalize Institutes of Technology by upgrading infrastructure, improving training quality, creating posts and developing them into centre of excellence with industry partnerships. A discipline specific Institutes of Technology focusing on health and bio-medical sciences is being developed at Dwarka. To revitalize and motivate the faculty, AICTE schemes are being implemented from time to time. Production-cum-Training facilities are proposed to be started to leverage

the learning of theory classes with practical's A new scheme, "Training of Trainers" introduced during 2016-17 to train faculty of Institute of Technology as per revised and industry driver curriculum.

Merit Scholarship and Merit-cum-Means Scholarship for meritorious students and students belonging to economically weaker sections of the society studying in the Government institutions under the Department of Training & Technical Education are being implemented since 2007-08 academic session to motivate and nurture the talents.

4. Replacement and Modernization of Machinery and Equipments, continuing Education and Centre of Excellence

Annual Plan Outlay 2016-17 : ₹570Lakhs (Capital)

Access to use of sophisticated and advanced control system by students in the technical institution is a must for increasing the technical competence and skill enhancement. The activities included in the scheme are as under:-

-) Replacement of the obsolete and outdated machinery and equipment which have out lived its life with the latest type.
-) Networking of all institutes
-) Providing additional modern/ sophisticated equipment due to advancement in technology/change in syllabus i.e. B.Voc. Equipping the laboratories and workshop with support facilities matching with the equipment procured.
-) Setting up of Communication Skills Labs and World Class test houses.
-) Setting up of labs enabling students to get dual certification.
-) Setting up of Language Labs (English Speaking, writing Skills etc.)
-) Networking of institutes through leased line connectivity, for internet access, and other common application usages.
-) Development and procurement of e-learning material.
-) Continuing Education Programmes
-) Starting additional courses.
-) Starting of Short term Courses
-) Enabling students to get additional certification.
-) Training for staff from the Industry

Entrepreneurship Development Programme

Entrepreneurship Development Programme has been recognized as an effective human resource development tool. This programme is primarily meant for developing the first generation entrepreneurs with the objective:

-) To inculcate entrepreneurship values and providing training inputs.
-) To organize entrepreneurship resource camps.
-) To introduce curriculum on entrepreneurship development as an elective subject.
-) To organize short-term courses by inviting experts from organizations to provide necessary guidance to students.
-) To set up their own industries.
-) Arranging industrial visits for students.
-) Industries contacting institutes for recruitment.
-) Inviting people from the specialized field for guest lectures.
-) Industrial/ in plant training of students.
-) Exchange of staff
-) Consultancy provided by institutions
-) Industry Institute Interaction

In order to increase the placement avenues for the students of various Institutes of Technology under DTTE, Job fair is organized where various industries are invited. And this event is organized annually so that maximum possible students can get direct employment through job fair.

5. Facilities to students of SC/ST/OBC/Minorities Communities (SCSP)

Annual Plan Outlay 2016-17 : ₹13 Lakhs

The objective of the ongoing scheme is to give assistance to SC/ST/OBC/Minorities students. SC/ST/OBC/Minorities students of various Institutes of Technology, pursuing courses in various disciplines by way of providing stationary/text books/scientific calculators etc. free of cost. The quantum of assistance depends upon the strength of total students and availability of allotted budget to the institute.

Under this scheme requisite items are provided on the basis of requirement received from the students of this community without considering the income of the parents. Post Matric Scholarship has been provided

to SC Student @ ₹ 230 per student and ₹ 160 for OBC students for Diploma courses in Polytechnic.

The objective of the scheme is to motivate the students of these community so that they may not depend on their parents for extra financial burden. Under this scheme Institutes of Technology are also conducting extra classes for the welfare of students of these community.

6. Setting up of new Polytechnics and Renovation/ Addl. /Alteration in the Existing Institutional Buildings

Annual Plan Outlay 2016-17 : ₹4000Lakhs (Capital)

The plan funds under this scheme is provided to PWD for construction of buildings for new Institutes of Technology and renovation / alteration / maintenance of the various Institutes of Technology and residential campus under the Department of Training and Technical Education and payment against deposit works. Some of related works are as under:

-) Maintenance of all buildings including staff quarters.
-) Air-conditioning of Labs
-) National / International standard conference rooms, seminar halls etc.
-) To carry out all building and campus related works.
-) Vertical Expansion of existing building
-) Construction of new buildings including the procurement of land for new polytechnics.

As per Ministry of Human Resource Development (MHRD), GOI scheme, 05 new polytechnics are to be established in North, North-East, West, Central and New Delhi Districts. Land has been identified in these districts at Qadipur, Mandoli, Bakkarwala, Jharoda Majra and Rajokari. The new Institute of Technology at Rajokari is proposed to be started from the Academic Session 2016-17.

7. Expansion of existing facilities in Bhai Parmanand Institutes of Business Studies.

Annual Plan Outlay 2016-17 : ₹ 230Lakhs
Revenue : ₹ 190 Lakh
Capital : ₹ 40 Lakh

The institute had been upgraded as a management institute and started new UG/PG courses of Master in Business Administration (MBA),

Bachelor of Business Administration (BBA) and by increasing the intake of students in Master of Computer Applications (MCA) as well.

Institute has purchased latest machinery and equipment. Classrooms are modernized with the LCD Projectors and Visualizes as Teaching Aids. BPIBS has also purchased Interactive Boards and Interactive Panel. These electronic gadgets are meant for adopting effective pedagogical system to the day-to-day teaching-learning process for the students and all the facilities are provided in a phased manner.

BPIBS Library has procured National and International Journals like- Foreign Trade Review, Global Business Review, Harvard Business Review, Indian Journal of Marketing, Journal of Discrete Mathematical Sciences & Cryptography, computer journal and Books. Library is poising for getting a fully digitized Library equipped with E- Grantalaya Software for complete automation of Library with Bar Code Facility.

The physical target for 2016-17 are as under:

-) Setting up of upgraded infrastructure for the courses as per revised curriculum (like tutorial room, digital class room examination cell, academic cell etc.).
-) Purchase of latest Machinery and equipment as per the curriculum of courses.
-) Up gradation of Laboratories as per the curriculum for the course.
-) Digitization of Class Rooms.
-) Development of Training & Placement cell.

8. Staff Development

Annual Plan Outlay 2016-17 : ₹50 Lakhs

Main objective of the staff development activities is to upgrade the expertise, qualifications and capabilities of the faculty members at various levels of Institutes of Technology by capacity building as per the AICTE recommendations. Funds are provided for development of capacity building of the members of faculty at degree/diploma level institutes as per recommendation of AICTE.

9. Takniki Shiksha Sansthan Kalyan Samiti

Annual Plan Outlay 2016-17 : ₹20Lakhs

The objective of the scheme is to provide representation of local area citizens, parents/Students/staff under the Bhagidari Initiatives of Govt. of Delhi.

All polytechnics have constituted committee comprising of local industrialist, Principal, student, senior staff, and other personalities to look after the day to day work of the respective institutes such as:

-) Minor Repair work of equipments
-) Repair of Build
-) Maintenance of Equipment
-) Miscellaneous works related to the respective institutes.

An amount of ₹2 Lakh is provided to each Institute under this scheme, and power is delegated to the principal concerned after approval of the respective Committee.

10. Technical Education Community Outreach Scheme

Annual Plan Outlay 2016-17 : ₹6Lakhs

The aims of the TECOS are:

-) To deliver training programme and to develop a low-cost solution to the growth of high quality skills among the impoverished.
-) To provide training in those areas, which have a good demand and trained persons may be enabled to get employment or self-employment easily.
-) This scheme is an effort for harmonizing the livelihood needs of the impoverished and the production oriented requirements of manufacturers and service provider agencies. The main objective of this scheme is to meet the growing demand of vocational training due to large influx of migrant population in Delhi. Training under this scheme is being imparted through selected NGOs on the pattern of Modular Employable Skills (MES) scheme of DGE&T, Government of India. The MES scheme is flexible in terms of instructional hours, vertical mobility in the sector and the training programmes of short duration.
-) Various training programmes in trades like Tailoring, Cutting, Dress Making, Hospitality, Computer Fundamentals, Salesmanship in Retail, Mobile Repairing, Printing etc in slum/JJ clusters/rural areas of Delhi are conducted by 10 to 15 NGOs every year. At present 17 NGOs are running the courses.

11. Sharda Ukil School of Arts (SUSA)

Annual Plan Outlay 2016-17 : ₹65 Lakhs

Revenue : ₹55 Lakhs

Capital : ₹10 Lakhs

Sarada Ukil School of Arts (SUSA) is running three years Diploma course in Art for Drawing Teacher Course with intake capacity of 20 students. The Diploma is recognized & affiliated with Board of Technical Education, Delhi. Till 2014-15 the GIA was being released by GNCTD to SUSA under non-plan.

12. State Project Facilitation Unit for Technical Education Quality Improvement Programme (TEQIP) - (CSS)

Annual Plan Outlay 2016-17 : ₹ 40 Lakh - Central Share
₹ 4 Lakh - State Share

The Ministry of HRD, Govt. of India has approved the proposal of Delhi Technological University (DTU) for participation under the Programme "Technical Education Quality Improvement Programme (TEQIP)-II". A Memorandum of Understanding has been signed between Ministry of Human Resource Development (MHRD), GOI (First Party) and Training and Technical Education, Govt. of NCT of Delhi (Second Party) on 28-06-2013. As per MoU Govt. of NCT of Delhi is to establish the State Project Facilitation Unit (SPFU) in the Department. The GNCTD will mainly be responsible for implementing and monitoring the project with the assistance of 'The SPFU'. The funding pattern will be in the ratio of 75:25 between GOI and GNCTD.

13. Community Development Through Polytechnic (CDTP)

Annual Plan Outlay 2016-17 : ₹40Lakhs

The objectives of the CDTP Scheme is to provide meaningful and qualitative non-formal training to rural youth, women, school drop-outs, SCs/STs and other weaker sections and under-privileged groups of the society, in consultation with highly qualified faculty/staff of the polytechnics. The Scheme is completely funded by MHRD, Govt. of India.

The major activities identified under the Scheme of Community Development through Polytechnics: are (i). Need Assessment Surveys; (ii). Skill Development Training Programmes; (iii.) Disseminate and Application of Appropriate Technologies; (iv). Technical and Support Services; and (v). Awareness Programmes.

The training under the scheme is provided at various Training Centers names as Extension Centers. These are run under the supervision of Principal of the various polytechnics. Presently, the scheme is being implemented in the 04 government polytechnics (Kasturba Polytechnic for women, GND Polytechnic, Aryabhatt Polytechnic, Meera Bai Polytechnic) and 01 private polytechnic (CRRIT) in Delhi.

14. Training of Trainers

Annual Plan Outlay 2016-17 : ₹50 Lakhs

This new Scheme has been introduced to work on thrust areas to promote skill development in Delhi state. Major area covered under this Program is for imparting training under ambit of Skill Development in order to fulfil the obligation of preparing manpower with industrial skills. The Department has introduced B. Voc. Programmed in various Polytechnics aligning to NSQF.

With this background, Department of Training and Technical Education proposes to create a new scheme to train the trainers involved in transference of knowledge and skills in various Institutes with association of Industries. The faculties of these Institutes will be trained to teach revised industry relevance course curricula as per requirement of Institution and also to make them conversant to Ultra Modern facilities with machines & equipment as used by the industries

B. Delhi Technological University

Annual Plan Outlay 2016-17 : ₹7800Lakhs

Delhi College of Engineering was reconstituted as Delhi Technological University vide Delhi Act 6 of 2009 w.e.f. July 2009 onwards. With the up-gradation, the university has been bestowed with much greater responsibility and accountability along with autonomy to excel and serve the interest of the talented community, industry and the society and to produce professionals in engineering and management field. 148 prestigious companies visited DTU campus for placement and provided more than 830 offers. 02 Students got placement in Google US with a package of Rs. 1.25 crore from 2015 batch.

1. Capital Works (Building Construction)

Annual Plan Outlay 2016-17 : ₹ 4300 Lakhs

The erstwhile Delhi College of Engineering was shifted to its present campus at Bawana Road in 1996-97. The campus plot has a size of 163.87 acre. Only a part of it was used for the first phase to cater to initial student strength of 3000 at that time. The total built up area is 1,58,840.41 sqm comprising of academic area (69,146.03 sqm), hostel area (50,607.40 sqm) and residential area (39,086.98 sqm). The university had added 05 new B. Tech. & 06 new M. Tech. programs in the emerging areas of science and technology from 2009-10 to meet the growing demand of quality manpower for industries. In addition, a school of management was established in DTU to cater for MBA program in the areas of knowledge and innovation

and management. The total intake of students have increased from 3000 in 2009 to 8100 at present and likely to go up to 13000 in the next 04 years.

Thus there is a need for expansion of DTU and 2nd phase of construction covering approx. 70,000Sqm. of area has been proposed to be taken up during coming years starting from 2016-17 onwards at an approximate cost of around ₹256Crore.

2. **Modernization of Machinery & Equipments and Modern Computer Centre / Networking Programme**

Annual Plan Outlay 2016-17 : ₹ 400 Lakhs

The existing Laboratories required to be modernized to cater to the needs of the students and setting up of new labs especially for new courses are to be initiated by the academic departments. Therefore, the major thrust will be on purchase and procurement of latest equipments and tools for different labs at departmental level.

Following activities/ components are being implemented under the scheme:

- i. Purchase of machinery/equipment for Labs etc.
- ii. Modernization of existing labs
- iii. Stores and purchase of raw material
- iv. Computer Centre: DTU has a well-equipped centralized computer centre having specialized laboratories to provide variety of platforms and computing environment for UG, PG & Research students and faculty in the university.
- v. **DTU Campus wide Network:** The centre is networked through high-end intelligent CISCO switch, and possesses round the clock two leased lines of 6 Mbps (Tata) and 8 Mbps (Airtel). The academic/library/administrative blocks and all the hostels of DTU are interconnected using Wi-Fi with limited number of access points. Recently, permission for networking the Hostels has been released and the work has started.
- vi. **DTU Web-Site:** DTU websites (www.dce.edu,) is maintained by the Design & development team comprising of students from different years under the supervision & guidance of the Head, Computer Centre. The Computer Centre shall focus on the following during 2016-17.
 1. To set up local LAN in all the departments of DTU.
 2. Extending the LAN of the departments by a canopy based wireless systems to all departments

3. To increase the bandwidth of the internet speed.
4. To expand its functioning through WI-MAX.
5. Deploying IT based service for the workflow and academic activities and to ensure E-Governance.

vii. **E- Governance in DTU:** E-Governance is tool to enhance administrative efficacy and to transact the academic affairs of the university to provide necessary transparency in the discharge of various functions of the University. It is proposed to develop and install a system of e-governance at DTU.

3. Faculty Development/ Student Welfare

Annual Plan Outlay 2016-17 : ₹40 Lakhs

DTU has focused on quality education, research & innovation that attracts highly skilled and experienced and faculty for its academic departments. Besides teaching the faculty members have been actively involved in various research and professional activities like member of editorial boards of leading journals. A large chunk of faculty members have also received prestigious awards from the various reputed societies /Govt. organizations and are on the rolls of their advisory boards.

The DTU has taken various initiatives to inculcate research culture among the students & the faculty. It is providing financial support to all who are presently published research papers in National & International conferences in different R&D organization & reputed university in India & abroad.

The university is proposed to establish Centre of innovation at DTU in the year 2016-17 with the support of Delhi State Innovation Council. The university shall also endeavour to establish Industry Sponsored Chaired Professorship in areas of Energy, Software Engineering, Power Electronics, Construction Technology & Management & Design Engineering during 2016-17.

The facilities to the students have also been upgraded especially those who are residing in the various hostels. The capacity of the Hostel of all the 17 Hostels have gone up to 1710 (1310 boys+ 400 girls)., Each hostel is now well equipped with all basic facilities like Solar Water Geezers, TV with Cable Connection, Common rooms and provision for all indoor games including reading rooms etc. With a view to ever increasing demand of hostel accommodation, it is now proposed to create additional infrastructure.

4. **Book Bank & Library Innovations**

Annual Plan Outlay 2016-17 : ₹ 50 lakhs

The Central library of DTU has a very rich collection of print as well as electronic books and journals satisfying the information needs of the faculty and students.

The University runs a Book Bank intended to assist students, from the economically weaker sections of society, by giving text books on loan to deserving students for the whole academic semester according to the rules framed for the purpose.

Departmental libraries will be strengthened to cater instant needs of text books and necessary reference material for students, research scholars, and staff and faculty members. New departmental libraries are to be established in the upcoming departments.

The following activities have been proposed for 2016-17 to strengthen the library:

-) Modernization, up-gradation and Digitization of the library resources and services
-) Purchase of printed reference books, text books, E- Journals and furniture etc. for library
-) Annual maintenance of computers, servers, software and other hardware including Electronic surveillance systems.
-) Purchase of Radio Frequency Identification and Electromagnetic System.

5. **Scholarship & Stipends**

Annual Plan Outlay 2016-17 : ₹ 100 lakh

The University has been making payment towards scholarship/stipend to students pursuing M. Tech. / PhD Programmes at approved rates.

The university has also been granted funding by the Ministry of HRD and the World Bank under TEQIP-II programme for strengthening Post Graduation & research at DTU.

6. **Examination Cell**

Annual Plan Outlay 2016-17 : ₹20 lakh

After the up-gradation of DCE into DTU w.e.f. July 2009 onwards, the University has introduced series of new courses both at the UG and PG level

programs resulting into increase of intake from 670 in 2008 to 1631 in 2015-16 for UG & from 162 to 608 for PG courses and 100 seats are available at the Ph.D level. University has started conducting its own end-semester examination along with declaration of results and issuance of mark-sheet to the newly admitted students under DTU. Thus the University is required to create additional infrastructure in terms of space and manpower to carry out the examination related activity without any hindrances.

7. Technical Education EDUSAT Network

Annual Plan Outlay 2016-17 : ₹10 Lakhs

Edusat studio cum class room has also been established with print support of ISRO and Govt. of Delhi, the facility is connected to 51 institutions in the NCT of Delhi. The facility is being currently utilized for transmission of on-line lecture to the connected institutions and for broadcast of recorded expert lectures, seminars and workshops.

TEACHING WITH AUDIO-VIDEO AIDS

There will be two types of teaching facilities in the network, which will include studio (with students- live class room), based teaching facility and virtual classroom based teaching facility.

It is proposed to procure the system for outdoor coverage's, which includes audio and video switcher, character generator and monitoring facilities with various inputs/output format including cameras capable to record in HD (High Definition), and SD (Standard Definition) formats. It is also proposed for classroom studio with complete studio facilities like camera, audio monitoring, video switching and all state of art facilities. It is proposed to create various posts to carry out the activities.

Major Component

-) Development of infrastructure and purchase of tools & equipments for EDUSAT & Studio and Knowledge Park.
-) Payment to outsource staff

8. Direction & Administration

Annual Plan Outlay 2016-17 : ₹ 2680 lakh

The expenditure is required to be incurred on salary of teaching and non- teaching staff, for maintaining the existing infrastructure and also to procure/ develop additional infrastructure procured additional infrastructure coupled with amenities on various administrative activities such as security,

office stationery & store, office equipments and furniture including advertisement & publicity etc.

Major Component

1. Salary of Teaching Staff
2. Salary of Non-Teaching staff etc.
3. Administrative Expenses

9. Technical Education Quality Improvement Programme (TEQIP-II) (CSS)

Approved Outlay 2016-17: ₹ 100 Lakh - Central Share

₹ 100 Lakh - State Share

Government of India launched the scheme “Technical Education Quality Improvement Programme (TEQIP)” as a long term programme to be implemented in three phases. The first phase of TEQIP implemented in March, 2003 and ended in March, 2009. Presently, the second phase of the programme is named Project TEQIP-II. The objectives of the project are:-

-) Strengthening institutions to produce high quality engineers for better employability.
-) Scaling-up PG education and Demand Driven Research & Development and Innovation.
-) Establishing Centres of Excellence for focused applicable research.
-) Training of faculty for effective teaching.
-) Enhancing institutional and System Management effectiveness.

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Memorandum of Understanding (MoU) has been signed between the Ministry of Human Resource Development (MHRD), Govt. of India (First Party) and Department of Training and Technical Education, Govt. of NCT of Delhi (Second Party) on 28.06.2013 and the Memorandum of Understanding (MoU) has been signed between State of Govt. of NCT of Delhi (First Party) and Delhi Technological University (DTU) on 30.07.2013, The salient features of the MoU signed between MHRD , Govt. of India and Department of Training and Technical Education , Govt. of NCT of Delhi are as under :-

- I. The Second Party (GNCTD) to establish State Project Facilitation Unit (SPFU) in the Department.

- II. Government of India and Govt. of NCT of Delhi will jointly share expenditure as approved by the National Steering Committee for the project in the ratio of 75:25.
- III. GOI will release grant to GNCTD in instalments during each project year in a timely manner against anticipated expenditure for implementation of eligible activities, provided State Govt releases its matching share. GNCTD needs to make 100 percent provision in its budget and will certify that this has been done when making a request for the release of each instalment of Central Share.
- IV. MHRD, GOI will provide all necessary support to GNCTD through National Project Implementation Unit.
- V. GNCTD will mainly be responsible for implementing and monitoring the project with the assistance of the SPFU.

The Department of Training and Technical Education, Govt. of NCT of Delhi has set up State Project Facilitation Unit (SPFU) vide letter dated 16.08.2014.

During the year 2013-14, Ministry of HRD has allocated total fund of ₹ 616.00 lakh for the Programmes on the following sharing basis:-

Particular	Allocated total amount released	Share of Amount	
		Centre Share	State Share
Delhi Technological University	600.00	450.00	150.00
SPFU of DTTE	16.00	12.00	4.00
Total	616.00	462.00	154.00

The Ministry of HRD has already released its share of ₹462.00 Lakh (₹450 Lakh for DTU and ₹12.00 Lakh for SPFU as 1st instalment and Govt. of NCT of Delhi has also released its share of ₹154.00 lakh (₹150.00 Lakh for DTU and ₹4.00 Lakh for SPFU) during 2013-14 under this programme.

C NETAJI SUBHAS INSTITUTE OF TECHNOLOGY

Annual Plan Outlay 2016-17 : ₹3800Lakhs

Netaji Subhash Institute of Technology was established in July 1983. Formerly it was known as Delhi Institute of Technology (DIT). The institute was started as a government college and was later on converted into an administratively autonomous institution in 1986 under Govt. of NCT of Delhi. The institute is affiliated to the Delhi University and provides Hi-Tech courses in the emerging areas of technology at UG, PG and Ph.D levels. The NSIT is being upgraded to University.

The other major objectives of institute are as follows:

) Opening of TBI Centres

-] To undertake industrial and R&D consultancies.
-] To lend support in identifying and starting small scale industry in an around the institute through entrepreneurship programmes.
-] To undertake Technology Transfer Programme.
-] To establish linkage between institute, industries, R&D Organizations and other Universities/ Institutes of higher technical education for teaching and research programmes in India/ Abroad.

PROPOSED ACTIVITIES

NEW B.Tech/M. Tech Programmes

- (i) B. Tech Programme in Mechanical Engineering
- (ii) M. Tech in Mechatronic Systems
- (iii) M. Tech in Industrial Electronics & Automation
- (iv) M. Tech. in Bio-Medical Engineering
- (v) M. Tech in Bio-formatics.
- (vi) M. Tech in Production and Automation Engg.
- (vii) M. Tech in Quality Improvement Programme

1. LIBRARY, FACULTY DEVELOPMENT & STUDENT WELFARE

Annual Plan Outlay 2016-17 : ₹ 2050 Lakh

(a) Strengthening of NSIT

-] Strengthening and improvement of UG,PG and Ph.D programmes, introduction of new courses at various levels and increase of intake in various programs as per the requirements and needs of NCT of Delhi
-] To facilitate academic interaction in specialized areas by inviting faculty members drawn from industry, R & D organizations, Govt. departments and other reputed academic institutes etc.
-] Smooth functioning of the offices, departments etc. in the institute.

(b) Library & Book Bank

Proposed physical Targets for 2016-17

- 1. On-line full text journals, print Journals
- 2. Print and on line Books
- 3. Bibliographic databases
- 4. Printing & Binding

5. Furniture and IT equipments
6. Up gradation of existing software, purchase of new software

(c) Faculty Development & Students Welfar

To establish linkage between the institute, industries, R&D organizations and other universities/ institutes of higher technical education for teaching and research programs in India and abroad. The faculty members and vice versa with outsiders need to attend conferences, seminars, workshops and training programs. This may go in a long way to develop, motivate and enhance knowledge.

Sponsorship to faculty members, Ph.D. research scholars, M.Tech and B.E. students for attending conferences as well as workshops, organizing seminars and participating in career council activities are under taken under the scheme.

2. PROCUREMENT OF MACHINERY & EQUIPMENTS

Annual Plan Outlay 2016-17 : ₹ 250 Lakhs

To keep pace with the expanding academic activities, it is proposed to establish a chain of advanced laboratories in addition to modernizing the existing one. New branches of academic programs in Post Graduate streams are to be started shortly. Procurement of lab equipments/machinery and other infrastructure are required to strengthen the institute/ departments.

3. AWARDS / SCHOLARSHIPS / RESEARCH ASSOCIATESHIPS

Annual Plan Outlay 2016-17 : ₹ 300 Lakhs

The merit-cum-means scholarships are being provided to the eligible students. Certain awards are also extended to deserving students. Associate-ships according to U.G.C norms are also being awarded.

4. CENTRE FOR ELECTRONIC DESIGN & TECHNOLOGY (CEDT)

Annual Plan Outlay 2016-17 : ₹ 20 Lakh

The CEDT was established in August 2003, in space provided by the ECE Division. Recently, it shifted to a larger laboratory. CEDT has completed major projects viz CPLD based digital experiment board, smart conference tag, internet controlled robot, talking thermometer and clock, biometric voting machine, attendance register system, real time audio spectrum analyzer, power generator for portable applications, battery-less TV remote, Ethernet to RS-232 bridge and Rural LED lantern.

CEDT has also organized numerous workshops in Embedded Systems Design for the students of NSIT as well as for other colleges and more than 500 students trained on various aspects of embedded system.

To continue and strengthen the creative activities of the Centre, the facilities at the CEDT need to be strengthened by acquiring the equipments/ facilities.

5. SCIENCE AND TECHNOLOGY ENTREPRENEURSHIP PARK (STEP)

Annual Plan Outlay 2016-17 : ₹ 10 Lakhs

Science and Technology Entrepreneurship Park is envisaged to house research and development (R&D) units of Indian and Multi-National companies provide incubation facility for students/ start-up firms and serve as knowledge hub in the National Capital Region. The objectives of the scheme are as follows:

-) Direct interaction with the industrial enterprises through their association and encourage students to undertake development work for them. STEP will support such development work financially also.
-) Arrange short duration training courses and week-end workshops for students on management/ technology related topics.
-) 2-3 days meets of engineering students in which they share their experiences in industry with students from other engineering college and institutions.
Identify talented students and help them develop as entrepreneur.
-) Holding of workshops and seminars for generation of newer ideas and for increasing participation from all partners viz industries, academic/ research institutions and financial institutes.
-) Any other activity which encourages entrepreneurship amongst students.

6. CONTINUING EDUCATION PROGRAMME (CEP)

Annual Plan Outlay 2016-17 : ₹ 10 Lakh

Under Continuing Education Programme (CEP), the institute has been conducting various short term courses in the area of electronics and computer primarily for the benefit of technical teachers, scientists, working engineers and weaker section of society to make them abreast of the latest developments in the field of Science & Technology. 75 Candidates have been provided training during 2015-16.

7. CAPITAL/CONSTRUCTION WORKS

Annual Plan Outlay 2016-17 : ₹ 1000 Lakhs (Capital)

AIMS & OBJECTIVES

- (i) Construction of six buildings (6 x 4224 sqm) in Academic Block, is to be carried out on top priority purely on Deposit Work base through PWD.
- (ii) Providing centralized air conditioning system in library building. Augmentation of sub-station equipments, SITC of street lighting, solar water heating system at hostel etc.
- (iii) Maintenance/ renovation of existing buildings and other infrastructures, Horticulture work etc.

8. COACHING FACILITIES TO SC/ ST/ WEAKER STUDENTS/ TRAINING PROGRAMME

Annual Plan Outlay 2016-17 : ₹ 10 Lakhs

To help candidates of SC/ST in improving their theoretical and practical skills in order to improve their employability. Special courses viz computer literacy and English speaking etc. course are being conducted. Training programme up to 15 days to 01 month organised. 225 Candidates have been provided training during 2015-16.

Targets for 2016-17

- 1. Computer literacy and English speaking course
- 2. Computer hardware course
- 3. Personality development
- 4. C & C++ and other programmes
- 5. VB, Java, Net, Oracle
- 6. Foreign language course
- 7. Networking & Tally

9. INSTITUTE NETWORKING SCHEME (INTERNET / INTRANET)

Annual Plan Outlay 2016-17 : ₹140 Lakh

Institute networking scheme requires budget to meet broadly three types of system requirements.

- (i) Maintenance and expansion of existing networking Infrastructure
- (ii) Internet Access Tariff

- (iii) Networking Application Servers and their maintenance

10. SCIENCE & TECHNOLOGY PARK

Annual Plan Outlay 2016-17 : ₹ 5 Lakh

Government of NCT of Delhi and NSIT (NSIT) proposed to set up a Science and Technology Park in Dwarka, New Delhi. This park is envisaged to house R&D units of Indian and MNC firms provide incubation facility for students / start-up firms and serve as a knowledge hub in the National Capital region. This platform would further act as catalyst in the proposed mechanism for academic industry interaction.

The total land areas within the NSIT campus available and earmarked for this project are approx. 30 acres on which about built up area of 2million sq.ft. could be development. However as per the BOG in its 34th meeting the work of implementation of science and technology park at NSIT has been deferred presently for the time being till the economic recession is over. Proposal will be re-examined based on present scenario.

11. CENTER FOR NANO TECHNOLOGY

Annual Plan Outlay 2016-17 : ₹ 5 Lakh

The education and training of young science and engineering graduates in the area of Nanotechnology is essential in order to ensure a flow of specialized and talented engineers into Industry. Several of the educational institutes in India and abroad have started UG and PG level programme in Nano Technology and related areas.

The proposed budget shall be utilized for conducting brainstorming sessions, meetings and faculty visits to various locations so as to plan development of this division

D. COLLEGE OF ART

Annual Plan Outlay 2016-17 : ₹ 512 Lakh

Revenue : ₹ 212 Lakh

Capital : ₹ 300 Lakh

College of Art, Delhi, established in 1942, is a premier art college for advanced training in Visual Art(both creative and applied) leading to the Bachelor of Fine Art(B.F.A.) and Master of Fine Art(M.F.A.) degree in the specialization of painting, sculpture, Applied Art, Print Making, Visual Communication and Art History awarded by the University of Delhi.

1. Expansion of College including Construction of Additional Block

Annual Plan outlay 2016-17 : ₹ 510 Lakh

Revenue : ₹ 210 Lakh

Capital : ₹ 300 Lakh

-] Installation of Lift at D – Block building is expected to be completed by this year through the PWD.
-] Installation of fire fighting system is expected to be completed by this year through PWD.
-] Up gradation of the infrastructure of Library.
-] To Enhance ICT in teaching process in the College.
-] Automation of Academic Branch, Admin. Branch, Store Branch and Account Branch.
-] CCTV Camera and Private Security.

2. ACADEMIC DEVELOPMENT OF SC/ST STUDENTS

Annual Plan Outlay 2016-17: ₹ 2 Lakh

Under this Scheme, eligible SC/ST students of this College are provided, study material free of cost. In addition to this, special classes are conducted for SC students.

E. DELHI INSTITUTE OF PHARMACEUTICAL SCIENCES & RESEARCH [COLLEGE OF PHARMACY]

Annual Plan Outlay 2016-17	: ₹ 1860 Lakh
Revenue	: ₹ 260 lakh
Capital	: ₹ 1600 Lakh

Delhi Institute of Pharmaceutical Science and Research (DIPSAR) a premier institute known for its high standards in teaching and research in Pharmaceutical Science. The institute offers courses in D.Pharma (Intake-120), B.Pharm (Intake-60), M.Pharm (Intake-40) and Ph.D(Intake-40).

DIPSAR has established Medicine and Poison Antidote Information Centre (MAPIC) in its campus and provides accurate, unbiased factual information to general public and members of the healthcare team such as Physician, Surgeons, Pharmacists, Nurses and Scientists. In addition to the laboratories meant for UG/PG routine teaching, the institute has got much state of art laboratories. The institute has hostel facility for boys and girls and guest house.

PHYSICAL TARGET

-) Construction of quarters for faculty
-) Providing scientific equipments etc.

F. GIA TO DELHI PHARMACEUTICAL SCIENCES & RESEARCH UNIVERSITY (DPSRU)

Annual Plan Outlay 2016-17	: ₹ 1000 Lakh
Revenue	: ₹ 700 Lakh
Capital	: ₹ 300 Lakh

The University (DPSRU) has been made functional from academic session 2015-16.
The following UG & PG courses introduced from academic session :-

1. B. Pharma
2. B. Physiotherapy
3. M. Pharma

Two more UG courses are proposed from academic session 2016-17.

G. AMBEDKAR INSTITUTE OF ADVANCE COMMUNICATION TECHNOLOGIES & RESEARCH, GEETA COLONY

Annual Plan Outlay 2016-17	: ₹ 1200 Lakh
Revenue	: ₹ 800 Lakh
Capital	: ₹ 400 Lakh

AIACTR was established in 2001 and functioned with the Ambedkar Polytechnic (Shakarpur, Delhi). The college is affiliated to GGSIPU, Delhi. The institute shifted in 2008 in its new campus at Geeta Colony, having an area of 8.5 acres. AIACTR started with 30 intakes each in ECE and CSE branch of B.Tech in 2001. Presently, it runs two UG courses viz B.Tech in ECE (120 intake) & CSE (60 intake) and four M. Tech courses in Digital Communication, Information Security, Signal Processing and RF & Microwave Engineering with 18 intake in each. 67 B.Tech and 15 M.Tech students got placement in reputed companies during 2015-16.

Proposed Targets for Annual Plan 2016-17

-) Construction of Hostel and staff quarters
-) New courses and increase in intake in various courses.
-) Strengthening of AIACTR

-) Purchase of latest equipments/instruments for various labs(existing/ new) of respective departments
-) Networked digital library
-) Continuing Education and Industry Institute interaction
-) Student welfare

H. CHAUDHARY BRAHM PRAKASH GOVT. ENGINEERING COLLEGE, JAFARPUR

Annual Plan Outlay 2016-17 : ₹ 620 Lakh

Revenue : ₹ 500 Lakh

Capital : ₹ 120 Lakh

Choudhary Brahm Prakash Government Engineering College was established in the year 2007. The College started with 60 intakes each in Civil Engg and IT branch of B.Tech in 2007 and a new programme of B.Tech (Environmental Engg) started from 2008-09 with intake capacity of 30 students. The College is affiliated to GGSIPU, Delhi. It is a leading and a well known Institute for Civil Engineering in Delhi. The College provides quality education with focus on professional development of students.

The college started functioning in the new building constructed for a new polytechnic. It is proposed to augment all Engineering labs and strengthening of library during 2016-17.

I. G.B.PANT ENGINEERING COLLEGE, OKHLA

Annual Plan Outlay 2016-17 : ₹ 350 Lakh

Revenue : ₹ 150 Lakh

Capital : ₹ 200 Lakh

G.B. Pant Engineering College was established in the year 2007 by the Govt. of Delhi and affiliated to the GGSIP University, Delhi, The institute started with an intake of 120 students 60 each in Mechanical and Automation Engineering (MAE) and B.Tech in Electronics and Communication Engineering (ECE). The institute has expanded the horizon by commencing Computer Science Engineering Branch in 2009. It has been conceived and designed to be a super- specially institute in Mechanical Engineering, with focus on Advanced/Flexible Manufacturing Systems (AMSs/FMSs), Automation & Robotics, CAM/CIM, Nano Technology, Mechatronics etc.

Proposed Targets for Annual Plan 2016-17:

-) Construction of Academic Block, Administrative Block, Hostels Residential quarters for teachers and staff, Auditorium, Dispensary, Mini Shopping complex, Bank and Post Office under integrated project with G.B. Pant

Institute of Technology (Formerly Polytechnic)

- J) Creation of Labs for 5th to 8th semester for new courses of B.Tech (CSE) and augmentation/ expansion / improvement in existing labs.

J. **INDIRA GANDHI DELHI TECHNICAL UNIVERSITY FOR WOMEN**

Annual Plan Outlay 2016-17 : ₹ 2100 Lakh

Revenue : ₹ 1700 Lakh

Capital : ₹ 400 Lakh

The University has been established under “The Indira Gandhi Delhi Technical University for Women Act, 2012” (Delhi Act 09 of 2012) by upgrading the erstwhile Indira Gandhi Institute of Technology (IGIT), a constituent college of Guru Govind Singh Indraprastha University (GGSIPU). The University has started functioning in 2013-14 with 10 programmes including 06 programmes run by erstwhile IGIT and 04 new programmes as well as PHD programmes in various branches of Engg. Science & Technology. The University has commenced B.Arch. programme from the Academic Session 2015-16.

The total strength of students at the Kashmere Gate Campus of IGDTUW shall be around 2000 from the Academic Session 2016-17. Land allocation for permanent Campus of IGDTUW shall be pursued.

Work relating to (i) infrastructure upgradation for National knowledge Network (NKN) connectivity; (ii) Establishment of Communication System Lab; (iii) Establishment of CIM & Robotic Lab in MAE Department; (iv) Renovation of Architecture Block; and (v) Renovation of ECE and CSE Block shall be completed during the financial year 2016-17. New labs, classrooms and studios are being developed for new PG and Architecture programs of the University.

The University has already taken up the process of setting up an Incubation Centre and Entrepreneurship Department Cell for nurturing start-ups in the University Campus.

K. **Indraprastha Institute of Information Technology –Delhi (IIIT-D)**

Annual Plan Outlay 2016-17 : ₹ 6000 Lakh (Loan)

The Indraprastha Institute of Information Technology, Delhi (IIIT-D) was established as a State University in 2008 by an act of Delhi Government (The IIIT Delhi Act, 2007). It started functioning in the year 2008 with an intake of just 60 students in B.Tech (CSE) from the premises of NSIT. Institute has started functioning from its own permanent campus at Okhla since August

2012. Presently Institute is running B.Tech, M.Tech and PhD in CSE and ECE and having a total student strength around 993. The aims of the Institute are:

-) To carry out advanced research and development in information and software technologies, and in leveraging IT in specific domain areas.
-) To train & educate at both undergraduate and post graduate levels, engineers of outstanding ability who can become innovators and new product creators.
-) It aims to encourage innovation and entrepreneurship in specified domain areas of IT and ITES. It is planned to be organized as conglomerate of R & D centres, some of which may be in partnership with different companies and global organizations.

The 1st phase of construction of campus completed comprising R&D Block, Lecture Hall, Library & Information Centre, hostels and faculty accommodation. The Cabinet of GNCTD has approved the proposal for construction of IIIT Campus under phase-II of the project at an estimates cost of Rs.250Crore. The construction work has already been started.

L. GIA to Delhi Skill/ Vocational University:-

Annual Plan Outlay 2016-17	:	₹ 2000	Lakh
Revenue	:	₹ 1500	Lakh
Capital	:	₹ 500	Lakh

- i) MHRD, GOI has notified NSQF on 19th Dec, 2013. This cover the competency acquired through skill development & recognized in formal educational set up.
- ii) To promote the vocational education & awarding the certificates, diplomas, bachelor Degrees, the University to be created under the scheme. This will benefit the youth who are employed & also dropouts from the formal education programmes, can join the level of programme under NSQF.

The following programmes are tentatively planned to be run in the University:-

1. Skill Development Modular Programmes, three months to twelve months depending upon the trade.
2. Certificate Programmes in Vocation Education of different Trades of one to two years.
3. Vocation Diploma Programmes in various disciplines of two to three years.
4. Bachelor Degree Programmes in Vocation Education of four years & also vertical levels as per NSQF.

5. Kaushal Kendra's to cover Post Graduate, M.Phil & Ph.D Programmes in Vocational Education.

The framework and action plan about the University has been suggested by the Committee constituted for the purpose and is being incorporated in the Bill accordingly.

The expenditure will be incurred on various activities is as under:-

-) To facilitate pre-establishment activities of University and expenditure on such activity.
-) After, the establishment of the University, the expenditure to be incurred by the University.

M. Setting up of Incubation Centre:-

Annual Plan Outlay 2016-17 : ₹ 2000 Lakh

1. Promoting interactions with, and technology / expertise resourcing from, the members of academic staff and research scholars of the Departments and Centres of the Institute, and Incubating novel technology and business ideas into viable commercial products or services.
2. Provide work space for start up companies by faculty / students / alumni.
3. Develop a network of experienced entrepreneurs, technology and management experts to mentor the start-ups.
4. Facilitate start-up funding from venture capitalist, angle investors, banks and NBFCs.

An incubation policy has been framed and approved. Initially 06 institutions have been selected to start incubation centre during 2015-16. The total cost of scheme over a period of five years – ₹ 100Cr.

N. Delhi Institute of Tool Engineering

Annual Plan Outlay 2016-17: ₹ 2100 Lakh

Revenue : ₹ 1200 Lakh

Capital: ₹ 900 Lakh

The Societies of Tool Room & Training Centre, Wazirpur Industrial Area, Delhi-110052 and Hi-Tech Vocational Training Centre, Okhla Industrial Area, New Delhi, have been amalgamated and upgraded as "DELHI INSTITUTE OF TOOL ENGINEERING" (DITE). The Delhi Institute of Tool Engineering has come into existence with effect from 28 -11-07 and is functioning from Wazirpur and Okhla Industrial Areas. DITE has been imparting training in various regular and short term courses in special subjects of Tool making and Tool designing. Considering the demand, the intake in 4 year diploma in

tool & die making, one year advance technician course and one year condensed course in tool and die making has been enhanced. The DITE is pioneer in starting a degree level new engineering course of B.Tech in Tool Engineering from the academic year 2008-09 under affiliation to GGSIPU. DITE has started B.Tech course in Mechatronics from 2013-14 and M.Tech in Tool Engineering from the academic year 2014-15 under affiliation to GGSIP University. The Institute also conducts various short term courses in the field of Tool Engineering, operation & maintenance of CNC machines.

DITE is conceived with the objective of developing professional expertise and skilled manpower in the field of Tool Engineering (TE) and allied disciplines. The brief objectives are:

- i. Development of MSME sectors through supply of trained manpower in the field of Tool designing, Tool making & supplies of sophisticated Tools such as dies, moulds, jigs etc.
- ii. To meet the skill deficit in the area of Tool Engineering and allied trades include skill up-gradation of existing manpower.
- iii. To enhance skill of the trainees from the weaker section of society for improving employment potential.