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# TECHNICAL EDUCATION QUALITY IMPROVEMENT PROGRAMME [TEQIP]

PHASE – II

## PROJECT IMPLEMENTATION PLAN

December, 2009



**GOVERNMENT OF INDIA  
DEPARTMENT OF HIGHER EDUCATION  
MINISTRY OF HUMAN RESOURCE DEVELOPMENT  
NEW DELHI**

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The contents of this document are subject to change.

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## Section – I

# BACKGROUND

### 1.1 Present System of Engineering Education:

Engineering education became a main attraction after 1990 when India became a major contributor to the global IT industry revolution. In the last two decades, many State Governments have encouraged the idea of self-financed engineering colleges where State Government does not provide financial support but facilitates the setting up of such institutions. As a result, the Indian system of engineering education has become vast and so far a total number of 2388 engineering degree institutions have been established.

The exponential growth in Technical Education has however not translated into any significant growth in the number of quality graduates due to restricted availability of qualified faculty. There is currently a huge gap between quality and quantity in Technical Education.

The quality of education and training being imparted in the engineering education institutions varies from excellent to poor, with some institutions comparing favourably with the best in the world and others suffering from different degrees of handicaps. There is a gap between the educational standards of the Indian Institutes of Technology (IITs) and other engineering institutions and the few IITs can neither change the fate of the whole country nor improve the entire educational system.

Concerted efforts are required to bridge the gap in the quality of education between IITs and other institutions. The IITs have to act as a catalyst in the growth of quality Technical Education in the country, and play a major role in training faculty from the other institutions of the country in both teaching and research. Some of the concerns in engineering education system are listed below:

- a) **Faculty Shortage/ Upgradation:** The massive expansion of institutions has resulted in an estimated faculty shortage exceeding 30,000 PhD and 24,000 Master Degree level faculty in 2388 institutions with an enrollment capacity of about 8,41,018 as of 31<sup>st</sup> August 2008. In some of the important disciplines such as IT and related areas, availability of faculty is dismal. The reasons could be:
  - The institutions are not able to attract and retain good quality faculty due to archaic recruitment and promotion procedures, absence of incentives for quality performance, and non-existent faculty development policies in most institutions.
  - Shortage of training opportunities and attention to overall growth of faculty is adversely affecting impartation of quality knowledge and skills to students thereby lowering their employability (only 25% at present). The faculty also lacks communication and pedagogical skills.
- b) **Industry-academia collaboration:** At present, this collaboration is at a nascent stage. Industry-academia collaboration involves two key aspects, industry inputs to curriculum development and internships for students. Increasing industry-academia collaboration requires: (i) overcoming the distrust between the two partners; (ii) identification of win-win partnerships in terms of technical knowledge; and (iii) incentives to institutions and faculty for collaboration.

- c) **Obsolete learning infrastructure:** This prevents the development of hands-on skills in industry-relevant technologies. Many institutions have not upgraded their equipment, laboratories, and learning resources for even more than a decade. There is also the absence of curriculum revisions that focus on practical training and quality instructions, research and development.
- d) **Stagnating research:** Increasing research that caters to the emergent industry and societal demand for technological solutions results in directly and indirectly improving knowledge and quality of faculty, which in turn would benefit students. A growing number of Indian firms are keen to collaborate with academia to enhance their competitiveness. Active research programmes in engineering institutions would also make meaningful contribution for sustainable technological development in India.
- e) **Attracting Students to become faculty:** The attraction of students for a faculty position depends on salary package, perks/facilities and professional career. Industrial sector salaries have increased significantly in the last few years but the increase in faculty salary with comparable experience is marginal. Furthermore, in many institutions, there is a problem in provision and maintenance of standard amenities of accommodation, medical attention, good quality schooling in residential campus, etc. Additionally, other facilities like holiday homes, availability of low interest loans, etc. that is provided by public sector, is lacking in educational institutions. The non-availability of research funds and quality research students is also the cause of concern in the professional growth of a faculty.
- f) **Imbalance in Engineering output at Bachelors, Masters and Doctoral level:** The number of Bachelors degree graduates in engineering (B.E/B.Tech) every year has increased exponentially from about 270 in 1947 to 2,37,000 in 2006 which is 12% as per compound annual growth rate (CAGR) stated in study report submitted by Energy Systems Engineering, IIT Bombay in the year 2007. However, as compared to Bachelors degree, the Masters' output has only increased from about 14,000 in 2001 to 20,000 in 2006, which is 7.5%, and the Doctoral output has increased by a mere 2.9% from 1985 to 2005 as per CAGR. The data presented clearly reflects that the output of engineering graduates at Bachelor level is disproportionately high in comparison to Masters level, and further reduced at the Doctoral level. The under production of Masters and Doctoral degree holders is now seen to be seriously undermining quality of education (due to high proportion of under qualified faculty).

## 1.2 Government of India Initiatives:

Government of India has adopted the National Policy on Education (NPE-1986 as revised in 1992). The NPE has suggested some major steps to promote Efficiency and Effectiveness of engineering education as quoted below:

- (i) High priority will be given to modernization and removal of obsolescence. However, modernization will be undertaken to enhance functional efficiency and not for its own sake or as status symbol.

- (ii) More effective procedures will be adopted in the recruitment of staff. Career opportunities, service conditions, consultancy norms and other perquisites will be improved.
- (iii) Teachers will have multiple roles to perform: teaching, research, development of learning resource material, extension and managing the institution. Initial and in-service training will be made mandatory for faculty members and adequate training reserves will be provided. Staff Development Programme will be integrated at the State, and coordinated at Regional and National levels.
- (iv) Institutions will be encouraged to generate resources using their capacities to provide services to the community and industry. They will be equipped with up-to-date learning resources, library and computer facilities.
- (v) Facilities for sports, creative work and cultural activities will be expanded.
- (vi) The Government of India shall assist the State Governments for the development of Programmes of national importance.

During 1980s, the Government of India (GoI) and the State Governments have felt the need for revamping the Technician Education System in the country to make it demand-driven with relevant courses in new and emerging technologies, with adequate infrastructure resources, competent faculty and effective teaching-learning processes. The Government of India supported the State Governments through three Technician Education Projects during 1991-2007, financed by the World Bank, which helped to strengthen and upgrade the system and benefited 552 polytechnics in 25 States and Union Territories of Andaman & Nicobar and Puducherry.

The success of these Projects encouraged the Government of India and the State Governments to seek more funding from the World Bank for systemic transformation of the Technical Education System with focus on degree level engineering education. In 2002-03, the Government of India with the financial assistance from the World Bank launched a Technical Education Quality Improvement Programme (TEQIP) as a long-term programme of 10-12 years, to be implemented in 3 phases for a systemic transformation of the Technical Education system. The first phase of TEQIP commenced in March 2003 and ended on March 31<sup>st</sup>, 2009, covering 127 institutions in 13 States. As this Project, covering less than 10% of the institutions, was a beginning, the challenge for systemic transformation remains big. To meet the challenge, serious, organized and converging efforts are needed.

Realizing the potential of socio-political and economic benefits from higher education in transforming India into a knowledge society, the Government of India has placed a much higher priority on higher education in the Eleventh Five Year Plan (2007 to 2012). This change in priority is supported by a proposed Rs.2,70,000 crore allocation to the education sector, which represents a four-fold increase over the Tenth Five Year Plan allocations. The Government of India has initiated schemes to ensure universal access to quality primary and secondary education while significantly expanding the capacity of higher education to provide educated and skilled workforce for the 21<sup>st</sup> century economy. The Government of India has made a bold move by allotting 30% of the total education outlay to the higher education sector and thereby committing to an eight-fold increase over the spending on the higher education sector during the Eleventh Five Year Plan period.

The main target for the Eleventh Five-year Plan for higher education (technical and general) is to increase gross enrolment ratio in higher education from 11% to 15%. The goal for Technical Education is an annual growth rate of enrolment of 15%. An equitable expansion is aimed at through the establishment of 80 new centrally-funded high-quality institutions, over 1000 new polytechnics, and 370 new colleges in under-served regions. Equity is being further supported through financing of student loan and grant programmes, in combination with increasing recovery to 20% of the cost of education.

The proposed, second phase of Technical Education Quality Improvement Programme (referred to as TEQIP-II) is fully integrated with the Eleventh Five-year Plan objectives for Technical Education as a key component for improving the quality of education in existing institutions.

## Section – II

# THE PROJECT

### 2.1 INTRODUCTION:

Technical Education Quality Improvement Programme (TEQIP) was envisaged in 2003 as a long-term programme of about 10-12 years duration to be implemented in 3 phases for transformation of the Technical Education System with the World Bank assistance. As per TEQIP concept and design, each phase is required to be designed on the basis of lessons learnt from implementation of an earlier phase. TEQIP-I<sup>1</sup> started a reform process in 127 Institutions. The reform process needs to be sustained and scaled-up for embedding gains in the system and taking the transformation to a higher level. To continue the development activities initiated through TEQIP-I, a sequel Project is planned as TEQIP-II<sup>2</sup>.

### 2.2 PROJECT GOAL:

Project aims to scale up and support ongoing efforts of the GOVERNMENT OF INDIA to improve quality of Technical Education and enhance existing capacities of the institutions to become dynamic, demand-driven, quality conscious, efficient and forward looking, responsive to rapid economic and technological developments occurring at the local, State, National and International levels. It has a clear focus on the objectives to improve the overall quality of existing engineering educational programmes.

### 2.3 PROJECT OBJECTIVES:

The Project will focus on the following objectives:

- Strengthening Institutions to produce high quality engineers for better employability,
- Scaling-up postgraduate education and demand-driven Research & Development and Innovation,
- Establishing Centers of Excellence for focused applicable research,
- Training of faculty for effective Teaching, and
- Enhancing Institutional and System Management effectiveness.

### 2.4 PROJECT SCOPE:

Project will be open for competition and participation by all the AICTE (All India Council for Technical Education) approved engineering institutions from all States and Union Territories (UTs) across the country. An estimated 200 engineering institutions including the Centrally Funded Institutions (CFIs) will be competitively selected to improve the learning outcomes and employability of the graduates and scaling-up research, development and innovations. Eligible private unaided institutions willing to contribute to the vision of India to produce high quality technical manpower are also welcome to participate in the Project.

The Project will also support universities affiliating Project Institutions for their innovations to improve policy, academic and management practices.

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<sup>\*1</sup> First Phase of the Technical Education Quality Improvement Programme that closed on March 31, 2009 is referred to as the Project - TEQIP-I throughout the PIP.

<sup>\*2</sup> Second Phase of the Technical Education Quality Improvement Programme is referred to as the Project - TEQIP-II throughout the PIP.

**2.5 PROJECT STRATEGY:**

The Project will be implemented in pursuance of the National Policy on Education (NPE-1986 revised in 1992) through the Ministry of Human Resource Development (MHRD) of the Government of India as a **“Centrally Sponsored Scheme”** with matching contribution from the State Governments and Union Territories (UTs). The Project cost will be shared by MHRD and States in the ratio of 75:25 for all States except in the special category States for which the ratio will be 90:10. For Centrally Funded Institutions, the entire Project cost will be borne by MHRD.

Funding for private unaided institutions in all States selected under sub-component 1.1 will be in the ratio of 20:20:60 i.e. 20% funding from Institutions, 20% funding as grant from State and 60% funding as grant from MHRD. Funding for private unaided institutions selected under sub-component 1.2 will be in the ratio of 75:25 between MHRD and States for all States except in the special category States, the ratio will be 90:10.

A set of eligibility criteria for States will be enforced to achieve a high and sustained impact of the Project. The criteria will seek to give the Project Institutions adequate decision making powers that will enable and encourage them to deliver quality education and undertake research in an efficient manner. A primary focus is to transform the governments’ traditional role of input-control towards a role of focusing on outcomes, and incentivizing improvements in engineering education.

The Project will require the Project Institutions to implement academic and non-academic reforms for their self-conceived Institutional development programmes that focus on quality and relevance, excellence, resource mobilization, greater Institutional autonomy with accountability, research and equity.

The Project intends to impart pedagogical training to faculty for making teaching effective and will cover maximum faculty members from the Project Institutions. The benefit of this aspect of the Project will also be extended to faculty from non-project institutions.

Professional Development Programmes for policy planners, administrators and implementers at Central, State and Institutional levels will be organized. Project will also support development of effective system governance.

The Project will lay major emphasis on monitoring and evaluation. The prime responsibility of monitoring will lie with the institutions themselves. The management structure at the institution level i.e. the Board of Governors (BoG) will monitor the progress of Institutional Projects on a regular basis and provide guidance for improving the performance of institutions in Project implementation. The information from Project Institutions will be collected through a scalable web-based Management Information System (MIS). State governments will also regularly monitor and evaluate the progress of institutions. The Government of India and the World Bank will conduct bi-annual Joint Reviews of the Project with assistance from the National Project Implementation Unit (NPIU). The monitoring will be based on Action Plans prepared by each institution and achievements made on a set of key performance indicators which will be defined in the Project proposals of the institutions. The monitoring will focus on implementation of reforms by institutions, achievements in Project activities under different sub-components, procurement of resources and services,

utilization of financial allocations and achievements in faculty and staff development and management development activities.

The Project intends to maximize collaboration between local industries and Project Institutions by providing the National Steering Committee and State Steering Committees (through national and State level private sector advisory groups) with timely, precise and concrete advice and summarized feedback on industry-institution partnerships to meet the national demand for graduates and post graduates equipped with skills and knowledge relevant to the changing market requirements.

Establishing Centers of Excellence with potential of world-class research in emerging areas is one of the important aspects of the Project.

Funding will be available to the institution for participation in either the sub-component 1.1 or the sub-component 1.2 but not for both at the same time. However, all project and non Project Institutions can seek funding under the sub-component 1.3.

## 2.6 PROJECT DESIGN:

The Project is composed of following components and sub-components:

### Component – 1 : Improving Quality of Education in Selected Institutions

- *Sub-Component 1.1* : Strengthening Institutions to improve learning outcomes and employability of graduates
- *Sub-Component 1.2* : Scaling-up Post Graduate education and demand-driven R&D&I
- *Sub-Sub-Component 1.2.1* : Establishing Centers of Excellence
- *Sub-Component 1.3* : Faculty Development for effective teaching (Pedagogical Training)

### Component – 2 : Improving System Management

- *Sub-Component 2.1* : Capacity Building to Strengthen Management
- *Sub-Component 2.2* : Project Management, Monitoring and Evaluation

The key features of the Project are presented in Table-1 and detailed Project description is given in Section – III.

TABLE-1 : PROJECT COMPONENTS AND SUB-COMPONENTS

<b>Component – 1 : Improving Quality of Education in Selected Institutions</b>	
<b>1.1 Strengthening Institutions to improve learning outcomes and employability of graduates</b>	
<b>Objective</b>	<b>Suggested activities</b>
<p>To strengthen institutions to improve the competencies of undergraduates in selected engineering institutions.</p> <p>An estimated 140 new engineering institutions meeting the eligibility criteria will be competitively selected under this sub-component.</p> <p>Private unaided institutions could also be part of this sub-component but shall be funded on cost sharing basis for carrying out the following activities:</p> <ul style="list-style-type: none"> <li>• Updation of learning resources</li> <li>• Starting new PG programmes</li> <li>• Curricular reforms</li> <li>• Faculty and Staff development for improved competence</li> <li>• Enhanced interaction with industry</li> <li>• Institutional management capacity enhancement</li> <li>• Implementation of Institutional reforms</li> <li>• Academic support for weak students</li> </ul>	<ul style="list-style-type: none"> <li>• Strengths, Weaknesses, Opportunities and Threats (SWOT) Analysis</li> <li>• Improvements in teaching, training and learning facilities through;               <ul style="list-style-type: none"> <li>○ Modernization and strengthening of laboratories / establishment of new laboratories</li> <li>○ Modernization of classrooms</li> <li>○ Updation of learning resources</li> <li>○ Procurement of furniture</li> <li>○ Establishment / Upgradation of Central and Departmental Computer Centers</li> <li>○ Modernization / improvements of supporting departments</li> </ul> </li> <li>• Modernization and strengthening of libraries and / or increasing access to knowledge resources</li> <li>• Increased enrolment in existing PG programmes, starting new PG programmes, providing assistanceships and enhancement of research and consultancy activities</li> <li>• Faculty and Staff development for improved competence based on Training Needs Analysis (TNA)</li> <li>• Enhanced interaction with Industry</li> <li>• Institutional management capacity enhancement</li> <li>• Implementation of Institutional reforms</li> <li>• Academic support for weak students</li> <li>• Refurbishment (Minor Civil Works)</li> </ul>

<b>1.2 Scaling-up Post Graduate education and demand-driven R&amp;D&amp;I</b>	
<b>Objective</b>	<b>Suggested activities</b>
<p>To significantly increase enrolment in post-graduate education and enhance engineering research and development and innovation.</p> <p>An estimated 60 institutions will be selected under this sub-component. The private unaided institutions could also be part of this sub-component and will be funded for activities as the other institutions.</p> <p>Sub-objectives:</p> <ul style="list-style-type: none"> <li>• Improve the quality and relevance of the PG-programmes</li> <li>• Attract more and better qualified PG students</li> <li>• Improve faculty qualifications</li> <li>• Enhance management of the institutions for more effective governance</li> </ul>	<ul style="list-style-type: none"> <li>• Strengths, Weaknesses, Opportunities and Threats (SWOT) Analysis</li> <li>• Significantly increasing enrolment in Masters and Doctoral programmes in engineering disciplines, providing assistanceships and starting new Masters programmes</li> <li>• Faculty and Staff development for improved competence based on Training Needs Analysis (TNA)</li> <li>• Enhancement of research and development activities</li> <li>• Modernization and strengthening of PG laboratories / establishment of new PG laboratories</li> <li>• Modernization and strengthening of libraries and / or access to knowledge resources</li> <li>• Enhanced interaction with industry</li> <li>• Institutional management capacity enhancement</li> <li>• Implementation of Institutional reforms</li> <li>• Academic support for weak students</li> <li>• Refurbishment (Minor Civil Works)</li> </ul>

1.2.1 Establishing Centers of Excellence	
Objective	Suggested activities
<p>To support establishment of Centers of Excellence for multi-disciplinary applicable research in specific thematic areas.</p> <p>About 30 institutions out of those selected under sub-component 1.2 having potential for applicable research will be selected with an additional grant for setting up Centers of Excellence.</p> <p>Sub-objectives:</p> <ul style="list-style-type: none"> <li>• Create knowledge in thematic, multi-disciplinary areas with industry and other knowledge users</li> <li>• Form advanced human capital (MTechs and PhDs) in collaboration with industry and other knowledge users through establishment of new PhD programmes or new electives</li> <li>• Increase societal use of produced engineering R&amp;D through technology transfer and commercialization</li> <li>• Increase research output through publication</li> </ul>	<p>All the activities as listed in 1.2 and the following additional activities are to be carried out:</p> <ul style="list-style-type: none"> <li>• Industry collaborations for applicable thematic research</li> <li>• Converting innovative ideas into projects/products in close collaboration with both private and public sector industries</li> <li>• Collaborative activities with National/International associations</li> </ul>

<b>1.3 Faculty Development for effective teaching (Pedagogical Training)</b>	
<b>Objective</b>	<b>Suggested activities</b>
To improve the learning outcomes of engineering students by improving competence of faculty from project and non-project institutions through pedagogical training.	<ul style="list-style-type: none"><li>• To cover maximum faculty for pedagogical training from Project Institutions for basic and advanced pedagogical training and from non-project institutions for basic pedagogical training.</li></ul>

<b>Component – 2 : Improving System Management</b>	
<b>2.1 Capacity Building to Strengthen Management</b>	
<b>Objective</b>	<b>Suggested activities</b>
<ul style="list-style-type: none"> <li>• To build capacity of Technical Education policy planners, administrators and implementers at Central, State, and Institutional level for effective implementation of academic and non-academic reforms.</li> <li>• To introduce and sustain innovative systemic quality improvement practices.</li> </ul>	<ul style="list-style-type: none"> <li>• Establishment of Quality Assurance Practices in States/ Union Territory Governments and Centrally Funded Institutions</li> <li>• Establishing a Task Force for strategic planning of Technical Education by State Governments</li> <li>• Establishment of Curriculum Development Cells (CDCs) in universities that affiliate Project Institutions</li> <li>• Spreading best practices to non-Project Institutions.</li> <li>• Establishing Industry-Institute Partnership Promotion Cells</li> <li>• Sharing of Best Academic, Administrative and Governance Practices through workshops and specific groups</li> <li>• Conducting Professional Development Programme for Project and Technical Education administrators at the National, State and Affiliating Universities</li> <li>• Establishing Task Force for effective system governance by MHRD</li> </ul>

<b>2.2 Project Management, Monitoring and Evaluation</b>	
<b>Objective</b>	<b>Suggested activities</b>
<p>To plan, organize and manage resources to bring about the successful completion of Project goals and objectives.</p> <p>To support innovations for improving State and Institutional level management and education practices.</p> <p>To monitor and evaluate the performance of Project Institutions and to identify variance, if any from the Institutional plan and suggest remedial measures, as required.</p> <p>To mentor the Project Institutions towards quality improvement and audit the Institutional performance in achieving the Institutional goals.</p>	<ul style="list-style-type: none"> <li>• Ensuring successful and timely implementation of the Project at the Central, State and Institutional levels through coordination of resources and integration of activities of the Project in accordance with the Project Implementation Plan (PIP).</li> <li>• The deliverables as outputs from the Project, as planned.</li> <li>• Monitoring and evaluation of performance through: <ul style="list-style-type: none"> <li>➤ Key indicators</li> <li>➤ Web based Management Information System (MIS) at the NPIU, State Project Facilitation Units (SPFUs) and project institutions.</li> <li>➤ Conduct of Assessment Surveys : <ul style="list-style-type: none"> <li>○ Student Satisfaction Surveys</li> <li>○ Faculty Satisfaction Surveys</li> <li>○ Implementation Surveys</li> <li>○ Employer Satisfaction Surveys</li> </ul> </li> <li>➤ Conduct of Institutional Audits : <ul style="list-style-type: none"> <li>○ Performance and Data Audits</li> <li>○ Fiduciary Audits</li> </ul> </li> <li>➤ Conduct of Resource Utilization Study</li> <li>➤ Conduct of Bibliometric Study</li> <li>➤ Conduct of Impact Assessment Study</li> <li>➤ Reviews : <ul style="list-style-type: none"> <li>○ Mid-term Review Mission</li> <li>○ Six-monthly Joint Review Missions</li> </ul> </li> <li>➤ Mentoring</li> </ul> </li> </ul>

**2.7 RISK ANALYSIS:**

The Project is designed with an objective to improve quality of Technical Education and enhancement of existing capabilities of the Institutions to become responsive to rapid economic and technological developments occurring both at national and international levels. The Project design has been deliberated adequately by all stakeholders, State and Central Government, experts, Private Sector, etc with an aim to minimize the risks associated with the Project.

Following are the risks perceived and the ways to mitigate these risks to ascertain successful implementation of the Project are given below:

<b>Risk Factor</b>	<b>Description of Risk</b>	<b>Rating of Risk</b>	<b>Mitigation Measures</b>
<b>Governance &amp; Policies</b>	Due to the selectivity in eligibility criteria to achieve the Project objectives, the institutions from the States lagging in Technical Education, may not participate in the Project causing regional imbalance.	Moderate	The Project has been designed to provide relaxation in eligibility criteria for the States lagging in Technical Education and give fair representation to such States to minimize the imbalance.
	There may be possible resistance to reforms envisioned for the Project by participating States/ institutions.	Low	The implementation of academic and non-academic reforms is an essential pre-condition for participation in the Project to be fulfilled by the States. Also, only those institutions that are willing to reform will be selected under the Project. The Project will incorporate support to governance issues and capacity building.
	The possibility of failing to adhere to Project targets and time limits by the participating States / institutions due to changes in leadership at State / Institutional levels.	Low	The Project has been designed as bottom up approach. The Project planning by the Institutions/States has been encouraged in the design to have ownership of the Project.
<b>Technical Design</b>	Institutional inadequacy in preparedness for implementing reforms and achieving excellence.	Low	The eligibility criteria designed for the selection of institutions in the Project will screen the weak institutions.
	Inadequacy in financial & administrative autonomy to Boards of Governors/ Institutional leaders.	Low	The minimum desirable autonomy will be agreed and included in the eligibility criteria of States/institutions.

Risk Factor	Description of Risk	Rating of Risk	Mitigation Measures
	Less incentive to private sector to collaborate with institutions and promote R&D activities, and also less incentive to institutions to engage with industries.	Moderate	The Project will help the institutions, the private sector, and business oriented institutions to create a platform where they can discuss on mutual benefits for collaboration.
	Less effectiveness of the implementation plan for Faculty Development programmes.	Low	The Institutional proposals will be required to contain details of Training Needs Analysis carried out and a Faculty Development Plan for the first 18 months of the Project. The funding to non-performing institutions may either be stopped or curtailed. Also, selected institutions will be funded to establish facilities for training for all faculty in modern pedagogy & for updating subject knowledge.
Implementation Capacity & Sustainability	Lack of ownership at State level causing delay in implementation of all the agreed reforms to comply with all the fiduciary requirement of the Project.	Low	The States that agree to implement all the reforms and to comply with all the fiduciary requirements will only be selected under the Project.
	Lack of ownership at Institutional level causing delay in implementation of all the agreed reforms.	Moderate	The Project Institutions will be reviewed & mentored on regular basis to fulfill the requirements of the Project.
Financial Management	Variation in staff capacities.	Substantial	The Project has allocated budget for regular and ongoing training for staff at all levels. The Financial Management Training will be provided to staff to improve their capacity to handle various financial issues.
	Variation in quality of auditors and audit reports.	Substantial	The Project will strengthen the auditor's selection criteria and Terms of Reference for audits.
	Delay in funds distribution and inadequate amount of funds to institutions, especially to the private unaided institutions.	Substantial	The States will make 100% budget provisions under the Project before the fund release. A common MoU between State and Institutions for funding private institutions will be agreed under the Project (Annex–III (c) & (d)).
	Potential delays in fund release due to Centrally Sponsored Scheme (CSS) with implementation responsibility vested in participating States, partly due to lack of delegation of power, slow recruitment of staff, and slow audits.	Substantial	The Project has been designed with effective and continuous monitoring mechanism at NPIU.

Risk Factor	Description of Risk	Rating of Risk	Mitigation Measures
Procurement	Fiduciary risks of economy, efficiency, transparency and fairness in procurement of Goods, Works and Consultant Services at institution level in a large number of institutions of the country. Moreover, potential procurement risks involved with new institutions and States in the proposed Project.	Substantial	The Project has been designed to build the capacity of each institution by identifying a coordinator to coordinate and manage the procurement process. The coordinator will be trained on agreed norms and guidelines on procurement. Procurement manual has been developed for the Project as per the World Bank guidelines on procurement to streamline the procurement activities of all institutions under the Project. An appropriate internal quality assurance mechanism will be established to carry out prior review and post review of procurement undertaken by participating institutions.
	Too many entities handling procurement which could lead to issues on consistency & standards and lead to fiduciary risks.	Substantial	A web based Procurement Management Support System will be developed under the Project for monitoring the procurement process of all procurement activities undertaken in the Project to ensure smooth flow of information/data which could assist and identify priority areas for effective supervision. The system will identify commonly procured items and develop data bank including standard specifications, addresses of original manufacturers in the country with anticipated price ranges.
Social & Environmental Safeguards	Inadequate attention, at both State and Institutional levels, to address the disadvantages faced by students with SC/ST, poor, resulting in reduced internal and external efficiencies.	Low	The Project agrees to develop and oversee implementation of a set of actions designed specifically to overcome such disadvantages and improve equity in education.
	Possible agitation by local people due to construction in the Project.	Low	The Project agrees that no construction will be allowed on such sites/ or that appropriate procedures are fully followed to address the situations encountered.

## Section- III

### PROJECT DESCRIPTION

#### **3.1 Component–1 : IMPROVING QUALITY OF EDUCATION IN SELECTED INSTITUTIONS**

This component will support around 200 competitively selected Engineering Education institutions to improve Learning Outcomes and Employability and Scale-up Research, Development and Innovation through two sub-components 1.1 & 1.2. The faculty of these institutions will also be offered pedagogical training through a separately funded faculty development programme through sub-component 1.3.

**3.1.1 SUB-COMPONENT 1.1 :****STRENGTHENING INSTITUTIONS TO IMPROVE LEARNING OUTCOMES AND EMPLOYABILITY OF GRADUATES****1. Objective:**

To strengthen institutions to improve the competencies of undergraduates in selected engineering institutions.

**2. Scope:**

This is a competitive fund that will finance the best Institutional proposals that have the potential to meet the above objective. An estimated 140 new engineering institutions meeting the eligibility criteria as described in Section-IV (4.3.1) will be competitively selected from (i) <sup>1</sup>new eligible States and (ii) <sup>2</sup>old States to participate in this sub-component.

Following types of educational institutions will be eligible for submission of proposals and if selected, for funding under this sub-component:

- i) New <sup>3</sup>Institutions from the old States
- ii) New Centrally Funded Institutions
- iii) <sup>3</sup>Institutions from new States
- iv) Engineering Faculty / Engineering Education Departments/constituent colleges of selected universities/ deemed universities, and
- v) Private unaided institutions on cost sharing basis<sup>4</sup>

Following types of educational institutions will not be eligible for funding under this sub-component:

- i) State Institutions and CFIs, which have participated in TEQIP-I,
- ii) Polytechnic Institutions,
- iii) Architecture, Management and Pharmacy Institutions or departments, and
- iv) Master of Computer Application Departments / Institutions.

**3. Strategy:**

The objective of this sub-component will be achieved through implementation of comprehensive and coherent Institutional proposals containing a set of reforms, improvements in faculty competence and quality of teaching, research and consultancy, and improvement in the associated infrastructure. Institutions applying for participation in this sub-component should not apply in sub-component 1.2. Institutions participating in this sub-component will need to compulsorily arrange-pedagogical training for their faculty (sub-component 1.3).

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1. New : First time entry to the TEQIP
  2. Old : States / Institutions that have participated in TEQIP Phase I (Refer Annex– VIII)
  3. Institutions : Government funded, Government aided, Private unaided
  4. Funding for Private unaided institutions will be in the ratio of 20:20:60 i.e. 20% by institutions, 20% by State and 60% by the MHRD

**4. Deliverables:**

The institutions under this sub-component will be responsible for outcomes and measured deliverables (outputs) in terms of:

- A strengthened institution in terms of academic and management capacities as measured by :
  - Obtaining autonomous institution status within 2 years
  - At least 60% of its eligible UG programmes accredited within 2 years
  - Having at least four Board Meetings during the first two years of Project implementation, as documented by publication of the proceedings of the BoG meetings on the Institution’s website
- Improved faculty qualifications as indicated by:
  - The share of regular faculty teaching engineering subjects with at least a Masters degree or a Doctoral degree over the baseline should be increased by 20% & 10% respectively at the end of the second year of the Project.
  - After two-years, at least 50% of its faculty members with only a Bachelor degree as their highest degree should be enrolled in a Master degree programme if the institution offers a Master degree programme. In the case the institution offers no Master degree programme, at least 25% of the faculty with Bachelor degree should be enrolled to Master degree programmes at other institutions.

**These will be the primary outcomes and deliverables that the institutions are responsible for. Continued funding beyond the Second year of the Project will be subject to meeting the above deliverables.**

In addition, the supported institutions will be expected to improve performance on the following aspects of a strengthened institution:

- Increased employability of students as measured by:
  - Improvements in the placement rate and the average salary of placement package
- Improved learning among weaker students as indicated by:
  - The share of the first year students that complete the full first year and transitions successfully to second year (disaggregated by social group)
- Overall Institutional progress as measured through :
  - Increase in the overall student and faculty satisfaction,
  - Number of registrants for Masters and Doctoral degrees (and number of Master and Doctoral graduates),
  - Percentage of external revenue from R&D Projects and consultancies in the total revenue of the institution,
  - Increase in the number of publications in refereed journals, and
  - Increased collaboration with institutions and industry.

**5. Evaluation and Selection:**

Selection will be based on evaluation of eligibility and development proposals prepared using the prescribed formats. The selection process is detailed in Section-IV. Information given in the formats should be verifiable, be to the point and be supported by documents.

It is estimated that about 40-50 institutions will be selected from the new States and 100-110 institutions from the old States.

**6. Funding pattern:**

The financial allocation to each Government funded and Government aided institution is expected to be in the range of Rs.10.00 crore and for Private unaided institutions, the allocation shall be restricted to Rs. 4.00 crore on cost sharing basis. For planning of fund requirements under various group of activities, refer Section-VI (Table – 4).

**7. The following activities are envisaged under this sub-component:****(i) SWOT Analysis:**

The institutions are required to carry out analysis using SWOT framework to identify Strengths, Weaknesses and to examine the Opportunities and Threats faced, thereby focusing on activities into areas where they are strong, and where the greatest opportunities lie (for guidelines please refer Annex-V). Based upon the SWOT analysis, the institution will prepare an Institutional development proposal in the prescribed format that seeks to strengthen the institution and increase employability of graduates. When designing their proposal, the institutions can propose a combination of the following activities:

- Improvements in teaching, training, and learning facilities,
- Modernization and strengthening of libraries and / or increasing access to knowledge resources,
- Increased enrolment in existing PG programmes, starting new PG programmes, providing assistanceships, and enhancement of research and consultancy activities,
- Faculty and Staff development for improved competence based on Training Needs Analysis (TNA),
- Enhanced interaction with Industry,
- Institutional management capacity enhancement,
- Implementation of Institutional reforms,
- Academic support to weak students, and
- Refurbishment (minor Civil Works).

**(ii) Improvements in Teaching, Training and Learning facilities:**

This will be achieved through:

(a) *Modernization and Strengthening of laboratories/Establishment of New laboratories:* Modernization and strengthening of laboratories may be required for:

- Meeting additional/ new requirements from revised UG and PG curricula
- Starting of new PG programmes
- Removal of obsolescence
- Promotion of research activities for students and faculty

Establishment of new laboratories may be required for:

- Introduction of new PG programmes
  - Existing UG and PG programmes
- (b) *Modernization of Classrooms:* Classrooms could be modernized to have Smart Boards and Computers linked to LCD Projectors with Screen, which can hold greater attention of the students than mere lecturing. Guest Lectures or Class Lectures organized through V-SAT, Video Conferencing, Audio Conferencing can also be considered depending upon need and feasibility. The classrooms need to be equipped accordingly.
- (c) *Updation of Learning Resources:* Continuous updating of Learning Resources (books, LRs and software's) and procuring the same is part of the improvement to be brought about in the teaching learning process. Course specific software to improve teaching learning process may be procured, as required. The faculty needs to be encouraged and trained to use modern equipment and course-specific software.
- (d) *Procurement of Furniture:* Furniture may be required for modernization of the laboratories, establishment of new laboratories, libraries, computer centers and classrooms. Provision would need to be made for such procurement in the Institutional proposal.
- (e) *Establishment / Upgradation of Central and Departmental Computer Centers:* The institutions may need to focus on modernization/upgradation of Computer Centres to meet curricular and research requirements. It is desirable that Computer Centers be kept open for extended periods beyond Institution hours and on non-working days. Proper connectivity with Campus-wide Networking needs to be ensured. Purchase of the required Computers at one go may be avoided; it may be phased to ensure that the latest systems are procured. The Institutional proposal should include the number of computer systems with purpose and estimates with time frame.
- Institutions would need to enter into Annual Maintenance Contracts for the computers procured under the Project after the expiry of warranty period. Wherever possible, replacement of computers/components by the suppliers/manufacturers to ensure upgradation of the computers procured may be considered.
- (f) *Modernization/Improvements of supporting Departments:* Upgradation of teaching and training facilities in the supporting Departments may be considered and included in the proposal so that their contribution is enhanced. The faculty belonging to these supporting Departments may also be extended benefits under Faculty Development limited to pedagogical training and subject area training.
- In Physical Education, funding will be for supporting the training of trainers for enhancing their proficiency and knowledge and also for the training of students participating in games and sports at the university and above level.

**(iii) Modernization and Strengthening of Libraries and / or increasing access to knowledge resources:**

Libraries, which are part of every Institution, promote self-learning and also support the teaching learning processes. There is a widespread need to keep the libraries open to the maximum extent. There are institutions where libraries are kept open for 24 hours a day throughout the week.

Modernization of libraries could include conversion to Digital Libraries, which would occupy lesser space and make space available for other activities. The institutions can also become member of Indian National Digital Library in Engineering Sciences and Technology Consortium (INDEST-AICTE consortium). Purchase of books should be through CDs to the extent possible. Even old books, which are available in CDs, should be located and purchased. There needs to be a CD bank with proper identification and accessibility. The library could be reorganized with adequate computers and connectivity to hostels, departments through Campus-wide Networking. Subscription to the latest e-journals related to the institution or otherwise could be made. The proposal of the Institution should clearly indicate the actions that are proposed to be taken for Modernization of Libraries including the cost involved. The Project Institutions are required to avail essentially the benefit of the existing Information and Communication technology (ICT) scheme of MHRD under National Mission on Education.

**(iv) Increased Enrolment in existing PG programmes, Starting new PG programmes, Providing Assistanceships and Enhancement of Research and Consultancy activities:**

Increased output of postgraduates and doctorates is of crucial importance for meeting the large requirements of faculty and for meeting the needs of the industry. It is also essential to encourage the passing out graduates to join PG programmes and also pursue research programmes for being employed as faculty. Starting of new PG programmes could also be a part of the proposal. The Project will fund only those new and existing PG programmes that are AICTE approved and for which the availability of required faculty is assured. Institutions receiving funds under the Project are encouraged to seek enhancement of Post Graduate seats from AICTE so as to increase the enrolment in PG courses.

Students sponsored from industry will be allowed to be enrolled in all PG programmes. GATE qualified students shall receive assistanceship as per AICTE norms from the Government sources. The non-GATE qualified students selected by the institutions will receive teaching / research assistanceships, for which they will devote 8-10 hours per week in classroom and laboratory assignments. Institutions should plan to utilize 8-10% of the total Institutional Project outlay on giving assistanceship to Masters & Doctoral students. The Institutions may also seek powers to convert the unfilled GATE and industry sponsored seats to non-GATE and non-industry sponsored seats respectively so that seats do not remain vacant.

- **Enhancement of Research activities :**

The selected institutions would promote increased participation of faculty in research, Projects and consultancy, for e.g. through merit recognition and fiscal and career incentives. Institutions, which already have research programmes, should encourage PG students to join research programmes, as explained in para above.

- **Enhancement in Consultancy activities :**

Institutions need to market services that they can offer to the industry. The industry should be encouraged to give live problems to the Institution for solutions. The faculty who has expertise should be encouraged to take up consultancy assignments, which would directly and indirectly benefit the Institution, faculty and students. Internal Revenue Generation (IRG) would receive a boost, and some of the income should be shared with faculty, staff and students as per the BOARD OF GOVERNORS approved Institutional norms. Regular interactions through consultancy are likely to promote a healthy and useful relationship between the industry and Institution. Care should be taken that consultancy services offered to industry do not affect the teaching schedules and processes. Institutions need to develop a strategy for enabling faculty to secure consultancy assignments and to complete them timely and successfully. The strategy in this regard is to be detailed in the full proposal.

(v) **Faculty and Staff Development for Improved Competence based on Training Needs Analysis (TNA) (for guidelines refer Annex – VI):**

Enhancing Faculty and Staff competence would receive focused attention under the Project. The faculty development should be closely linked to the overall goals of the institution and the Institutional proposal, and coordinated with the proposed investment in equipment, learning resources and facilities. Institutions should plan to spend at least 10% of the total proposal outlay on faculty and staff development.

- **Enhancing Faculty Development:**

Faculty Development needs to be carried out through the following main activities:

- a. **Qualification upgradation:**

Institutions are expected to encourage faculty to upgrade their qualification from graduate to post-graduate and from post-graduate to Doctoral degree. If the facilities are available within the Institution, the same need to be maximally utilized. Alternatively, the faculty could be deputed to other Institutions for enhancement of qualification. Part time or sandwich programmes can also be considered where feasible and necessary.

- b. **Subject knowledge and research competence upgradation:**

Subject knowledge upgradation is to make the faculty aware of the advances in knowledge, technologies and research methodologies for improving his/her own performance and for the benefit of students. Short term and long term courses are available within India including summer schools arranged by Government organizations, institutions and professional societies. Faculty should be on the lookout for appropriate opportunities. The Project plans to develop and periodically update a web-based training calendar on the NPIU's website for the benefit of all engineering faculty.

- c. **Participation in Seminars, Conferences, Workshops etc.:**

Faculty is to be encouraged to participate in seminars, conferences and workshops, both National and International. Participation in such fora would give a good exposure on the developments taking place in different areas. The faculty participating in such fora, need to be also encouraged to visit close-by institutions and laboratories of his/her interest. Besides, accrual of benefits to students and in their own researches, such participation is expected to bring about collaborations with academic institutions and R&D organizations within and outside the country. The Institutions are required to establish collaboration through MoUs.

- d. **Pedagogical Training:**

The need for Pedagogical Training using the latest teaching methodologies is strongly felt for improving the teaching and training competence of faculty. The training is to be offered in two modules: (i) Basic Pedagogy (ii) Advanced Pedagogy, each of one week duration including both theory and hands on learning. The target is to cover the entire faculty from the Project Institutions and to also extend the benefit to a large number of faculty in non-Project Institutions. More details are given in the Section-III, under sub-component 1.3.

The following areas may be given importance while formulating the Action Plan for faculty development:

- Upgradation of qualifications
- Improving competence in teaching-training
- Development of modern learning resources and teaching aids
- New techniques in research
- Improving competence in research and consultancy
- Deputation to seminars, conferences and presentation of research papers
- Interaction with peer groups within India and abroad
- Establishing linkages with academic and research institutions and industry.
- Management of industry interactions
- Student counseling
- Student performance evaluation

The Institutions should submit a detailed Action Plan on the Faculty development in their respective Institutional development proposals. The above activities will be funded from the Project.

- **Enhancing Staff Development:**

The staff in an engineering education institution fall under two categories:

- a. **Technical Staff:**

The Technical Staff in laboratories and workshops need to be trained in their functional areas including operation and routine maintenance of both the existing and new equipment. They also need training on workshop instructions, upkeep of Institutional services, etc. The training can be organized within the institution or at the supplier/manufacturer premises. The technical staff also need to be motivated and encouraged to go for training and to use their newly acquired expertise for the benefit of students and the institution.

- b. **Administrative Staff:**

The Administrative Staff also needs training in their functional areas, particularly in the use of modern office equipment, software, office automation, maintenance of records, procedures, etc. The training should also cover motivation for time and material efficiency, and friendliness towards faculty and students. The training may preferably be organized within the institution with the help of suitable organizations.

**Procedure to be followed:**

Based on the Training Needs Analysis, Faculty & Staff Development Plan need to be done for each faculty and staff linking the Institution's objective and requirements. This should also cover career progression of the faculty and staff.

Based on the above, comprehensive Faculty and Staff Development Plans (separate for each group) need to be made on a yearly basis with the approval of the BOARD OF GOVERNORS. The Faculty and Staff Development Plan should contain details of the venue, dates, duration and organization where the training is to be conducted. Once the Plans are approved, deputation of faculty and staff should be done on a regular basis.

**Accountability:**

The faculty and staff after undergoing training are expected to :

- Prepare a report on the training undertaken and the experience gained. The report should also include the aspects that can be transferred to the teaching-learning process, research, equipment utilization and, administrative and financial functions.
- Share their experience with students and other faculty/staff across Institution through seminars/ talks.
- The report from the faculty should be hosted on the Institution's web site and linked to NPIU's web site.

**(vi) Enhanced Interaction with Industry:**

The Central Advisory Board of Education (CABE) has suggested a strong need for developing effective synergies between research in the universities and their application in and utilization by the industry to the mutual advantage of both the systems. Likewise, industry should be persuaded to establish organic linkages with the universities to seek solutions of problems faced by the industry.

Industry Institute Interaction Cell should be formed in each Institution to promote links to benefit students, faculty and the industry with the objective of building collaborative interdisciplinary research by engaging actively with Industry for offering real life solutions. Specific steps being taken should be part of the proposal related to the Action Plan (for guidelines refer Annex-IX).

a) The key areas in which industry can contribute for the benefit of the Institution are:

- Participating in curriculum design, curriculum implementation, student assessment, training of students, exposing students to new technologies, and providing experts for certain instructional sessions;
- Providing opportunities for student groups to undertake problem-solving Projects;
- Participating in such bodies as the Board of Governors, Academic Council, Boards of Studies, Faculty Recruitment, Committees, etc;
- Assisting institutions in establishing new laboratories, providing literature on new technologies, and offering their shop floors as substitutes for laboratories;
- Training students, faculty and technical staff in new technologies and processes;
- Collaborating in sandwich programme offerings;
- Participating in joint R&D activities;
- Delivering expert lectures;
- Industry senior personnel serving as adjunct faculty;
- Utilizing Institutional resources (manpower and physical) for industrial manpower training;
- Developing Post Graduate Education in areas of current and potential high demand; and
- Providing assistance for improving employability including entrepreneurial training, specialized skill training, and training in softer skills required by industry.

b) The key areas in which academic institutions can contribute for the benefit of Industries.

- The existing expertise available with university set-ups, national labs and institutions can be utilized by the industries for technology assessment, up-gradation and absorption in the industry.
- Laboratories in the institutions must create a niche for themselves by targeting in the select areas of excellence.
- Institutions need to encourage and enhance the activities to boost the country's economy through developing new knowledge innovations and technologies which can be adopted by industries.
- The professionals from industries can act as adjunct faculty in the institutions and faculty can be deputed to industry to gain industrial experience.

**(vii) Institutional Management Capacity Enhancement:**

Improving managerial and administrative abilities of Heads of institutions, Deans, Heads of Departments, senior faculty and officials through specifically designed training programmes is an important Project activity to support effective implementation of reforms, to improve development, planning and implementation, and monitoring. The expected outcomes are enhanced management capacity, helping the institution to gain increased autonomy, and improved internal and external efficiencies of institutions. The NPIU will develop appropriate training curricula in this regard, identify training institutions and organizations, and develop an annual training schedule. Institutions leaders are also encouraged to participate in other relevant orientation and training programmes. All institutions are expected to participate in the training programmes.

All SPFUs, in conjunction with the institutions, are required to conduct orientation programmes for BoG members to keep them well informed of the Project design and implementation requirements, and their role in respect of both Project implementation and overall Institutional development.

**(viii) Implementation of Institutional Reforms:**

The eligibility conditions for selection of Institutions under this sub-component envisage implementation of academic and non-academic reforms in a span of 2 years. The institutions that fail to implement the reforms may be debarred from further funding. The reforms are:

**(a) Curricular Reforms :**

The Central Advisory Board of Education (CABE) under MHRD has suggested that each institution should exercise innovative approaches in undertaking periodic revision of curriculum every two to three years and an intensive revision every four to five years depending on the developments in the subject area. The main purpose of revision of curricula and syllabi for Engineering Education disciplines at UG and PG levels is to effectively prepare students to meet the labor market requirements. Involvement of employers including core industry is an essential requirement.

The Yash Pal Committee Report 2009 to advise on Renovation and Rejuvenation of Higher Education also has stressed that all syllabi should require the faculty and students to apply what they have learnt in their course, on studying a local situation, issue or problem. There should be sufficient room for the use of local data and resources to make the knowledge covered in the syllabus come alive as experience.

Project institutions, which are affiliated to Universities, will need to get the revisions in the curricula approved by the competent authorities. The Project will finance, on a voluntary basis, these affiliating universities for establishing modern curriculum development centers for undertaking effective curricula development/revisions for the benefit of both the Project and non-Project institutions (for details please see Innovation Fund under sub-component 2.1).

Institutions, which are autonomous, can carry out the curricula development and revision themselves by establishing mechanism that would ensure that the curricula meet labor market requirements.

All new and revised curricula, among others, need to imbibe the following:

- Innovations in teaching and student evaluation methodologies
- Design skills, communication skills, entrepreneurial skills, information processing, creative and innovative thinking, leadership skills
- Problem solving Projects from industry
- Elective courses
- Extensive use of media
- Invited expert lectures from industry and field
- Visits to and training in industry
- Multi-level and multi-background entry credit exemptions

**(b) Exercise of autonomies :**

*Academic, Administrative, Managerial and Financial:* For Institutions selected under sub-component “Strengthening Institutions to improve learning outcomes and employability of Graduates”, obtaining Autonomous Institutional status from the UGC / the affiliating University within 2 years of joining the Project is mandatory (refer Annex-I & II). Institutions are also expected to obtain and exercise reasonable levels of Administrative, Financial and Managerial autonomies. The details of the financial, managerial and administrative autonomy to be exercised by Institutions are given in Annex-I.

**(c) Establishment of Corpus Fund, Faculty Development Fund, Equipment Replacement Fund and Maintenance Fund :**

Establishment of the four funds is essential to ensure that the developmental activities continue beyond the Project period. It is, therefore, essential that all Institutions establish the four funds and put substantial amount in each fund at least as per the prescribed mechanism (refer Annex-I).

**(d) Generation, retention and utilization of revenue generated through variety of activities :**

As the eligibility condition for States and Union Territories, all Project Institutions will be permitted to generate, retain and utilize the entire revenue, generated by them including income from tuition fee and other fees and charges from students. All Project Institutions are expected to increase revenue generation from such activities as self-financing teaching and training programmes, testing services, consultancy and research, innovations, patents, commercialization of R&D outputs, sharing of high-tech equipment with industries, public usage of infrastructure for academic activities, etc. (see Annex-I).

Institutions are to utilize the revenue for building up the 4 funds, development activities, offering incentives to faculty and staff, instituting awards and rewards for students, faculty and staff, etc. with approval from the BOARD OF GOVERNORS in accordance with rules developed in consonance with Government guidelines, if any. These rules need to be in place in each institution within 2 years of joining the Project. Institutions need to periodically report increases in the IRG generated.

**(e) *Filling-up all existing teaching and staff vacancies :***

As an eligibility condition for States and Union Territories, Government funded and aided Project institutions will be authorized to fill existing faculty and staff vacancies on long-term contract (11 months or more), pending regular appointments. All institutions are accordingly expected to reduce vacancies for faculty and staff to 10% or less of the sanctioned positions within 2 years of joining the Project. Where needed, the Board of Governors may recruit the desired faculty with incentives.

**(f) *Delegation of decision-making powers to senior Institutional functionaries with accountability :***

Delegation of adequate powers to senior functionaries like Deans and HoDs with accountability is expected to help better implementation of Project. The powers and responsibilities of the Director/Principal, Deans, HoDs, Professors and other senior faculty in the department, laboratory in-charges and other functionaries should be clearly made in a decentralized administrative environment and be made available to all concerned. Even junior faculty and staff should know their authority and responsibility for which they would be held accountable.

As a measure of Financial Reforms, adequate financial powers to the Director/Principal of the Institution and other functionaries are to be delegated by the Board of Governors. The suggested minimum financial power to be delegated is as under:

- i. Director/Principal/ Dean (In the case of University College) - Rs. 50.00 lac for single purchase order
- ii. Head of the Department or equivalent: Rs.1.00 lac for single purchase order
- iii. All expenditure above Rs. 50.00 Lac would have to be approved by the Board of Governors. Similarly all expenditure above Rs.1.00 lac by the Head of the Department shall be approved by the Director

All actions of the Director in connection with Continuing Education Programmes, Faculty Consultancy, and Faculty Development Programmes, Industrial Consultancy Programmes, approval of seminars and conferences should be reported to Board of Governors.

The details are given in Annex-I.

**(g) *Improved Student Performance Evaluation :***

Evaluation of students have to be on a continuous basis, which would provide opportunities for improvement. Publication of results in the shortest period, allowing the students to see the evaluated papers are some of the innovative measures that can be adopted. Students and faculty will benefit largely from this reformation of student evaluation process. The faculty may identify the academic weaknesses and then counsel the students as to how they may improve their performance. A brainstorming by faculty with students can help to identify various

options for performance improvement. Transparency, fairness, consistency and accountability in grading must be ensured. The aggrieved student may be allowed to see the evaluation. Weak students should be given every opportunity to improve. This will develop a greater respect for the Institution by the students.

The details are given in Annex-I.

**(h) Performance appraisal of faculty by students :**

Evaluation of faculty performance on a periodic basis should be implemented. It should be used for taking remedial actions for improvement of teaching learning process. The main purpose should be to help a faculty to improve his/her teaching/training skills. The assessment by students and the counseling which may follow such assessment should be aimed at helping faculty recognize weaknesses and remedy them to improve the learning of students. An exit assessment taken at the end of the course gives an insight into the total effectiveness of the course and the learning achievement and deficiencies and may be useful for future delivery of the course by the faculty. Faculty must be taken into confidence during each assessment and the benefits to the faculty / student and the improvement in quality of education should be well explained. Continually motivate faculty for greater quality and encourage them to do better. This will ensure a proper mix of proficiency and efficiency in the quality of instruction offered to students.

The details are given in Annex-I.

**(i) Faculty incentive for Continuing Education (CE), Consultancy and R & D :**

The initiatives taken by faculty members should be encouraged through proper incentives and clear guidelines. All faculty members are required to get involved in services to community and economy and encouraged to participate in organizing and/or attending CE programmes, to offer consultancy to industry and to take part in R&D activities in the Institution. The Institution should prepare at the beginning of every semester, a faculty engagement chart which should indicate not only the faculty teaching commitments, but also his/her expected involvement in administration, Continuing Education, collaborative activities, research and development activities including curriculum and laboratory development, consultancy, and services to community and economy. Faculty efforts for good achievements in this direction should be suitably recognized by the management. Institutional efforts for consulting to industry and involvement in R&D should also be adequately encouraged.

The details are given in Annex-I.

**(j) Accreditation of eligible UG & PG programmes :**

Accreditation of programmes is one of the quality assurance mechanisms. The bench marks for eligibility of institutions have been given in Section-IV. The accreditation target to be achieved by the end of the second Project-year is 60% of the eligible UG programmes and 100% accreditation obtained and applied for the eligible UG & PG programmes by the end of the Project. Institutions need to take appropriate actions to obtain accreditation of eligible PG and UG programmes within the specified time frame and also for renewal of accreditation during the Project period. Institutions are required to give their plan of action for getting the eligible programmes accredited in the Institutional Development Proposals (IDPs).

**(ix) Academic support for weak students:**

As a part of criteria for selection of the institutions and the States, commitment is being taken from the States and institutions that under the Programme, the reservation of seats for students as per the policy framework will be continued. It is proposed to improve the academic performance of SC/ST/OBC/academically weak students through innovative methods, such as remedial coaching classes and skill development classes for increasing the transition rate and pass rate with the objective of improving their employability. For more details refer Section-IX. Institution should plan to spend at least 4% of the Institutional Project cost for providing academic support for weak students.

**(x) Refurbishment (Minor Civil Works):**

The Civil Works to be undertaken by the institutions will be prioritized as follow:

**a. Repair works:**

The works under this category could be, repair of old structures and / or non-functional components of the existing building. These works may include replacement of leaking pipes or broken toilet fittings, repair of damaged flooring or plaster, etc.

**b. Refurbishment works:**

Under this category, the works that can be undertaken will be related to changing the existing functions of a room / space to a new proposed function. For example: provision of electrical, water supply and/ or waste disposal arrangements in an existing room which is proposed to be used as a laboratory.

**c. Extension to Existing Buildings:**

The institutions can construct an additional area in continuation to an existing building within the campus. However, the institutions shall provide justification on the utilization of existing space.

The expenditure on refurbishment (minor Civil Works) should not exceed 5% of the Institutional Project cost.

*Note 1 : The activities like establishment of a new Institution, large scale Civil Works, introducing new UG programmes will not be eligible for funding.*

*Note 2 : The Private unaided institutions are expected to carry out all the above listed activities. However, these institutions will receive limited fund only for the activities listed in Section-II (Table-1).*

**1. Objective:**

To significantly increase enrolment in post-graduate education and enhance engineering research and development and innovation.

**2. Scope:**

This competitive fund will finance the best Institutional proposals that meet the above objective. About 60 autonomous institutions (as defined by UGC) meeting the eligibility criteria described in Section-IV (4.3.2.1) will be selected under this sub-component. The following types of institutions are eligible to submit a proposal:

- State Government funded, Government aided and Private unaided institutions that have already participated in TEQIP-I,
- State Government funded, Government aided and Private unaided institutions that had not participated in TEQIP-I,
- Centrally-Funded Institutions (CFIs) that have participated in TEQIP-I,
- CFIs that had not participated in TEQIP-I,
- Constituent colleges of universities,
- Technical deemed universities, and
- Department / Faculty of technical universities.

Following types of educational institutions will not be eligible for funding under this sub-component:

- i) Non-autonomous institutions,
- ii) Polytechnic Institutions, and
- iii) Architecture, Management, MCA and Pharmacy Institutions or departments.

**3. Strategy:**

Some of the institutions that were supported under TEQIP-I, have already upgraded infrastructure for quality of UG education and gained experience in introducing innovations in academic and administrative practices and also in implementation of Institutional reforms. The Government of India expects that these institutions are quite ready for further improvement in imparting quality education at UG and PG level and scaling-up PG education and research activities. The Project would thus select those institutions that can meet this challenge.

It is expected that a few new<sup>1</sup> institutions would also qualify to participate in this sub-component. The private unaided institutions can also participate under this sub-component and will receive the same funding as other institutions. Institutions would submit comprehensive and coherent Institutional Development Proposals that aim to achieve the above stated objective.

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<sup>1</sup> The term 'new institution' refers to institutions that had not participated in TEQIP-I, likewise 'old institution' refers to institutions that had participated in TEQIP-I.

**4. Deliverables:**

The institutions under this sub component will be responsible for concrete deliverables in terms of:

- Scaling-up of PG education as measured by:
  - Increased enrolment of Masters and Doctoral students (and number of M.Tech/PhD graduates)
- Increase in the Industry-Institute collaboration and scaling-up of R&D in areas linked to societal / industrial demand:
  - Percentage of revenue from externally funded R&D Projects and consultancies in total annual revenue from all sources
- Scaling-up quality research, development and innovation as indicated by:
  - Increase in the number of publications in refereed journals, citations and patents obtained/filed
- Increased collaboration with other institutions as measured through:
  - The number of joint publications in refereed journals

The above will be the primary deliverables for the Institutions selected under this sub-component. Continuation of funding beyond the second year of the Project will be subject to achievements on the above deliverables.

In addition, the supported institutions will be expected to improve performance on the following aspects:

- Increased employability of students as measured by:
  - Improvement in the placement rate and the average salary of placement package
- Overall Institutional performance as measured through:
  - Increase in the overall student and faculty satisfaction

**5. Evaluation and Selection:**

Selection will be based on the merit of proposals submitted in the prescribed formats (Annex-IV (B)(b)) and their presentation to the National Evaluation Committee. Information given in the formats should be verifiable, to the point and supported by **documents**.

**6. Funding Pattern:**

The financial allocation for an institution (funded, aided or private unaided) selected under this sub-component is expected to be Rs.12.50 crore. For planning fund requirements under various group of activities, refer Section-VI (Table-5).

**7. The following activities are envisaged under this sub-component:**

**(i) SWOT Analysis:**

The institutions are required to carry out SWOT analysis (for guidelines refer Annex–V) to identify Strengths, Weaknesses and to examine the Opportunities and Threats faced thereby focusing activities into areas where it is strong, and where the greatest opportunities lie. Based upon the SWOT analysis, the institution prepares an Institutional Action Plan that seeks to remove its weakness in respect of postgraduate education and R&D, increase enrolment into Masters programmes and scale-up research, development and Innovation using its strengths. Based on the Action Plan, Institutions need to formulate an Institutional Development Proposal. When designing the Institutional Development Proposal, the institutions can propose a combination of the following activities:

- (i) Increasing quality and relevance of the programme through curricula reform linked to industry needs
- (ii) Providing Assistanceships
- (iii) Faculty and Staff Development
- (iv) Enhancing research and consultancy activities
- (v) Developing research interest among UG students
- (vi) Improving quality and resource sharing through collaborative arrangements
- (vii) Improving Teaching, Training, and Learning Facilities
- (viii) Starting new PG Programmes
- (ix) Modernizing and strengthening Libraries and /or increasing access to knowledge sources
- (x) Enhancing Interaction with Industry
- (xi) Enhancing Institutional Management Capacity
- (xii) Implementing Institutional Reforms
- (xiii) Refurbishing infrastructure (minor Civil Works)

Each of these activities eligible for financing under the Project is described in further details below. Each proposal must contain a plan for Faculty and Staff development that accounts for 10 % of the proposed fund requirement. Further Civil Works is to be limited to maximum 3 % of the costs of the Institutional proposal.

**(ii) Significantly increasing enrolment in Masters and Doctoral programmes in engineering disciplines, providing assistanceships and Starting new Master programmes:**

The aim is to attract students to Masters and Doctoral programmes and provide assistanceships. Scaling-up of programmes will be done either by strengthening the existing programmes or by introducing new programmes. For the scaling-up, institutions need to ensure availability of qualified faculty and essential technical staff.

It is expected that in each of the institutions participating in this sub-component, the Project will provide a total of 50 Masters Teaching Assistanceships to non-GATE qualified students and 30 PhD Research assistanceships during the Project duration (in addition to the assistanceships already available to the GATE qualified students and QIP assistanceships) as per the prevalent GoI norms. Candidates sponsored by industry will be allowed to be enrolled in all PG programmes. Institution should plan to utilize 10-15% of the total Institutional Project outlay for giving assistanceships to Masters and Doctoral students. Those receiving assistanceship will be required to devote 8-10 hours per week for teaching or research, as the case may be. Outstanding candidates enrolled for PhD, in select cases, could be sent abroad for paper reading in conferences, and exposure / interaction with eminent research laboratories for three months (as a part of the exchange programme).

Starting of new AICTE approved PG programmes in emerging areas of engineering and technology will be supported under the Project provided that: (a) these are started latest by August 2010; (b) more than 50% of the seats are occupied, and (c) sufficiency of the required faculty is maintained throughout Project life.

**(iii) Faculty and Staff Development for improved competence based on Training Needs Analysis (TNA):**

For details please refer to sub-component 1.1

**(iv) Enhancement of research and development activities:**

National Knowledge Commission has stated, "Research and Development are prerequisites for teachers in top-flight research institutions that supply man-power for research and for development of cutting edge industry." All technical Institutions are required to undertake research as a means of renovation and renewal of educational processes with the primary aim of producing quality manpower capable of taking up R&D functions. Research for development should focus on improving present technologies, developing indigenous ones and enhancing production and productivity.

Institutions are required to develop their plans for quantitatively increasing and qualitatively improving research by their faculty individually, jointly and collaboratively. Institutions need to secure industry sponsored research Projects also. The plan needs to indicate the research areas, likely number of research Projects, faculty to be associated with each Project, expected outputs in terms of applicable products, patents, publications, etc.

The institutions are also expected to undertake the following:

- **Development of research interest among Under Graduate students:**

Institutions need to encourage UG students to get associated with industry oriented/sponsored research programmes under the guidance of senior faculty. This is expected to increase their interest in higher education and research.

- **Resource sharing through collaborative arrangements:**

Institutions are encouraged to establish MoUs with neighboring institutions and industries on viable collaborative Projects with specific time frames and well-defined outputs. The Projects may be coordinated jointly by faculty member(s) from Institutions as well as personnel from the industries. A well-defined and transparent revenue sharing mechanism needs to be evolved and implemented to motivate faculty members to increasingly participate in such activities. The Project encourages participating Institutions to share their resources like faculty and staff, computer centers, major lab/workshop equipment and libraries, and engaging experts from the industries for short-term and/or on part-time basis.

**(v) Modernization and Strengthening of PG laboratories/establishment of new PG laboratories:**

For details please refer to sub-component 1.1

**(vi) Modernization and Strengthening of Libraries and/or access to knowledge resources:**

For details please refer to sub-component 1.1

**(vii) Enhanced interaction with industry:**

For details please refer to sub-component 1.1

**(viii) Institutional management capacity enhancement:**

For details please refer to sub-component 1.1

**(ix) Implementation of Institutional Reforms:**

All institutions participating in this sub-component are required to implement all the academic and non-academic reforms as described in Annex-I.

- (a) *Curricular reforms:*  
For details please refer to sub-component 1.1
- (b) *Exercise of autonomies – Academic, Administrative, Managerial and Financial:*  
For Institutions selected under sub-component 1.2 (Scaling-up post-graduate education and demand driven R&D&I) possession of Autonomous Institution status is a mandatory requirement. Institutions are also expected to exercise reasonable levels of Administrative, Financial and Managerial autonomies. The details of the desired financial, managerial and administrative autonomy to be exercised by Institutions are given in Annex-I.
- (c) *Establishment of Corpus Fund, Faculty Development Fund, Equipment Replacement Fund and Maintenance Fund:*  
For details please refer to sub-component 1.1
- (d) *Generation, retention and utilization of revenue generated through variety of activities:*  
For details please refer to sub-component 1.1
- (e) *Institutions to fill-up all existing teaching and staff vacancies:*  
The Institutions selected under this sub-component are required to reduce vacancies for faculty and staff to 5% or less of the sanctioned positions within 2 years of joining the Project and strive for zero vacancy during Project life.
- (f) *Delegation of decision making powers to senior functionaries with accountability:*  
For details please refer to sub-component 1.1
- (g) *Improved Student Performance Evaluation:*  
For details please refer to sub-component 1.1
- (h) *Performance appraisal of faculty by students:*  
For details please refer to sub-component 1.1
- (i) *Faculty incentive for Continuing Education (CE), Consultancy and R & D:*  
For details please refer to sub-component 1.1
- (j) *Accreditation of UG and PG programmes:*  
The institutions selected under this sub-component are required to achieve accreditation of at least 75% of eligible UG programmes and 60% of eligible PG programmes within 2 years of joining the Project and strive for 100% accreditation at both levels during Project life.

**(x) Academic Support for weak students:**

For details please refer to sub-component 1.1

Institution should plan to spend at least 2% of the Institutional Project Cost for providing academic support for weak students.

**(xi) Refurbishment (Minor Civil Works):**

The Civil Works to be undertaken by the institution under this category is to be confined to laboratories only. The works can be the changing of the existing functions of an old structure/space to a new proposed function. For example: provision of electrical, water supply and/ or waste disposal arrangements in an existing non-functional component of a structure which is proposed to be used as a laboratory.

The expenditure on refurbishment should not exceed 3% of the Institutional Project Cost.

**1. Objective:**

To support establishment of Centers of Excellence for multi-disciplinary applicable research in specific thematic areas.

**2. Scope:**

About 30 Centers of Excellence (CoE) will be set up in institutions out of those selected under sub-component 1.2 having potential for further scaling-up post-Graduate education and undertaking cutting-edge applicable research. An additional fund will be given for the same. Some of the potential generic areas suggested for establishing CoEs are:

- Renewable energy (Solar, Wind, Wave energy etc), Hydrology and Water Resource Management, Highway Safety, Intelligent Transportation System (ITS), Advanced Materials, Disaster Management, Nanotechnology, Security Technology, Semi Conductors, Advance Manufacturing, Bio-medical Instrumentation, Waste Management, Bio-Technology, Image Processing, Information and Communication Technology etc.

**3. Strategy:**

- A Center of Excellence (CoE) is expected to be a collaborative activity between faculty members from several departments around a common research programme.
- All the collaborating departments are expected to share their physical and intellectual resources with each other.
- CoEs are expected to address emerging industry and societal needs in close collaboration with industries and users, within India and abroad.
- CoEs are expected to trigger an R&D culture in the institutions as evidenced by significant increases in research outputs, collaborative and sponsored research, publications, patents, innovations, commercialized products and PhD enrolments.
- CoEs are expected to further scale-up postgraduate education through increased enrolments for Masters and Doctoral programmes in topics closely linked to economic and societal needs.
- CoEs are expected to increase collaboration with National and International research institutions to improve quality of research and development, further tap into global pools of knowledge and create a critical mass with potential for global research and development.

**4. Deliverables:**

The CoEs are expected to ensure the following additional deliverables, in addition to those listed under sub-component 1.2:

- Increased International exchange of credits,
- Joint publications in peer-reviewed journals with International authors,
- Significant exchange of research students and faculty with foreign collaborating institutions,
- Conferences/Seminars/Symposia and Workshops organized at National and International levels,
- Significant increase in patents obtained and filed,
- Progressive increase in external R&D funding,
- Industry sponsored R&D Projects,
- Number of Industry Chairs secured,
- MoUs with industry and academia, both within India and abroad, and
- Products commercialized.

**5. Selection:**

The CoEs will be selected through a competitive process based on the merit of its Institutional proposal. An independent expert Evaluation Committee will evaluate the proposals and recommend Institutional proposals for selection to the National Steering Committee. Selection criteria and format will be finalized during the first 6 months of Project inception. Some institutions may be required to undertake improvements in their proposal before commencement of funding. A maximum of two CoEs can be supported in an institution under this sub-sub-component.

**6. Funding Pattern:**

The financial allocation for the institutions under sub-component 1.2.1 selected as Center of Excellence is expected to be around Rs. 5.00 crore over and above their allocation under sub-component 1.2. This augmentation is for additional costs towards research equipment, books and learning resources, consultancy services, research studies, training, 5 to 10 additional research assistanceships for Masters and Doctoral students, local study tours, workshops and patenting.

**7. The following activities are envisaged under this sub component:**

The institutions with CoE are expected to carry out the following additional activities in addition to those listed under sub-component 1.2.

**i) Industry collaborations for applicable thematic research:**

The CoEs are expected to have potential for interaction with industry to create research ambience in the institutions and to provide state-of-art research facilities in specific areas of Engineering and Technology. Industry-academia linkages are to be encouraged by associating students with industry-sponsored Projects under the guidance of senior faculty members. CoEs are to motivate industry to sponsor more R&D Projects for indigenous developments and for continuous updation of technology to keep pace with the latest developments globally and to have cost effective, industry relevant research & development that can make Institutions with CoEs as factories of Innovation.

CoEs are to be proactive in increasing industry involvement in all the relevant areas in the institution and create a pool of "Industry Patrons". It will help to create an environment of innovation in the institutions and enable absorption of the advanced technologies in niche areas and to develop future-ready indigenous technologies.

CoEs need to promote and strengthen Institutional capacity in specific thematic areas with a multi-disciplinary research effort by expanding and developing capabilities in research by undertaking cross-pollination of best practices, establishment of core facilities and enhancing infrastructure needed to carry out objectives of the Project. Collaborative, interactive efforts would be promoted amongst researchers with complementary background skills and expertise. The CoEs are expected to be goal-oriented, to use a blend of product relevant discovery sciences and aim at product and process development, with the aim of creating interventions in institutions and industrial sectors.

CoEs are also encouraged to collaborate in the education and training of post-graduate students. In particular, the industry partners in the CoEs could provide research guidance to students on real-life problems for Masters and Doctoral theses. Ideally, PG students would conduct research within the partner companies. The collaboration could also extend to inputs into coursework of UG and PG programmes, for example through new electives and industry lectures.

**ii) Converting innovative ideas into Projects / products in close collaboration with both private and public sector industries:**

CoEs need to address emerging technologies to realize their full potential for creating stronger links between academia and industry, which stimulate development of innovative ideas and solutions. The evaluation of innovative ideas and products with regard to their successful potential in terms of market penetration and the degree of innovation is a special challenge for research and development. Independent research activity can lead to growth of knowledge/processes in a novel area and can subsequently grow into a major Project. Students should be encouraged to participate in industry oriented research programmes based on their own innovative ideas and to develop these ideas and knowledge into a means of fostering industrial innovations. There is a dire need for effective overlap of academia and industry, so as to inculcate the sense of new technologies and relevant expertise amongst the new entrants in the fast paced technologically driven environment. It will boost dissemination and exchange of information across industry and academia that would develop best means of delivering ideas into products and processes.

**iii) Collaborative activities with National/International associations:**

The institutions with CoEs need to collaborate with Laboratories, Professional bodies and Societies, R&D Organizations within India and abroad, desirably through Memorandum of Understanding for acquisition of the latest knowledge and technical know-how (Guidelines for International travel are given in Annex-VII).

The CoEs through collaboration are expected to contribute to the development and elevation in the position of engineering education and engineering professionals in society, and act as a link between its members, societies and International bodies. CoEs are further expected to foster excellence and innovation in engineering by excelling in research, public service and practice; and providing quality products in their regions and around the world through International linkages and cooperative partnerships.

**3.1.3 SUB-COMPONENT 1.3****FACULTY DEVELOPMENT FOR EFFECTIVE TEACHING  
(PEDAGOGICAL TRAINING)****1. Objective:**

To improve the learning outcomes of engineering students by improving competence of faculty from project and non-project institutions through pedagogical training.

**2. Scope:**

All Project institutions need to organize pedagogical trainings on their campus to cover maximum faculty members from the institutions. Funding will also be available to the interested non-project institutions for Basic Pedagogy training on cost sharing basis.

**3. Strategy:**

Pedagogical training will be offered in 2 modules (Basic Pedagogy and Advanced Pedagogy), each of one week duration. The modules would include both theory and hands on learning. The Basic Pedagogy training would be given during the First and Second years of the Project while the Advanced Pedagogy training would be provided from the Second Year onwards only to those who have completed the basic training.

The NPIU will organize development of curricula for the 2 modules. It will thereafter invite Expression of Interest (Eoi), shortlist and qualify competent training providers for each module through an open invitation.

These training programmes in the Project Government funded and aided institutions will be funded fully by the Project in accordance with the agreed basis by the States. The host institution will provide the venue and the required facilities for training and bear the training entity's travel, boarding and lodging costs as also the costs for replication and distribution of training materials. In case of Project private unaided and non-project Government funded, Government aided and private unaided institutions, the Government of India and the concerned State will share only the training entity's "training fee" in accordance with the agreed basis by the States.

SPFU would select for its institutions training providers from NPIU's shortlist by following the World Bank procedure. It will appoint a senior faculty member as the training coordinator who will facilitate and coordinate the training and carry out the follow up activities. The training providers will be required to evaluate the effectiveness of the training given, and the results will be shared with the Institution, SPFU and the NPIU (guidelines are given in Annex-X).

SPFUs need to inform all non-project Institutions (including private unaided institutions) of the opportunity made available for pedagogical training on subsidized basis. Only training fee will be paid by the Project; all other expenses to be borne by the non-project institutions.

**4. Deliverables:**

The deliverables for this sub component are:

- Number of faculty trained
- Feed back from students on teacher competence improvements through the Performance Audit and Student Satisfaction Survey

**5. Funding Pattern:**

The funding pattern for various categories of institutions under Pedagogical training is as follows:

- Centrally Funded Institutions will receive entire funding from MHRD/NPIU.
- The Project Government funded and Government aided Institutions will receive funding in the ratio of 75:25 or 90:10 as the case may be.
- The Project private unaided institutions will receive funding in the ratio of 75:25 or 90:10 as the case may be, only for the “training fee”. However, all other expenses including cost of venue, training provider’s travel cost, their lodging, boarding and costs for replication and distribution of training materials would be borne by the institutions.
- The non-project Government funded, Government aided and private unaided Institutions will be funded only for the “training fee” by the Project in the ratio of 75:25 or 90:10 as the case may be. However, all other expenses including cost of venue, training provider’s travel costs, their lodging, boarding and costs for replication and distribution of training materials would be borne by the institutions.
- NPIU/MHRD will consolidate the fund requirements of the Project States / UTs and CFIs every two months and release the required Central Share as the case may be.

**6. The following activity is envisaged under the sub-component:**

To cover maximum faculty members for pedagogical training from Project Institutions for basic and advanced pedagogical training each of one week duration for a total of two weeks duration from the first and second year of the Project onward respectively. The basic pedagogical training can be extended to faculty of non-project institution for one week duration on cost sharing basis.

### **3.2 Component–2 : IMPROVING SYSTEM MANAGEMENT**

This component aims to build capacity of Technical Education policy planners, administrators and implementers at the Central, State, and Institutional levels to effectively implement the institutional reforms and to introduce and sustain innovative systemic quality improvement practices.

It also provides timely, sufficient, precise, and reliable information to improve and assess the performance of the selected institutions through effective project management.

**3.2.1 SUB-COMPONENT 2.1 :****CAPACITY BUILDING TO STRENGTHEN MANAGEMENT****1. Objective:**

- To build capacity of Technical Education policy planners, administrators and implementers at Central, State, and Institutional level for effective implementation of academic and non-academic reforms.
- To introduce and sustain innovative systemic quality improvement practices.

**2. Scope:**

The initiatives to improve policies and management practices that contribute the promotion of quality in engineering education at Central and State levels will be funded through an **Innovation Fund**<sup>3</sup>. The Fund will support initiatives by Central Government, State Governments, Affiliating Universities, the State Technical Universities and group of Centrally Funded Institutions.

**3. Strategy:**

(a) The Project will support,

- the innovative management initiatives by individual States and affiliating Universities of Project Institutions,
- the knowledge sharing workshops between Project States and Institutions,
- professional development of Technical Education, TEQIP administrators in the Project States,
- the initiatives for Effective System Governance of institutions at the level of Board of Governors.

(b) The capacity building programmes envisaged under this sub-component are in addition to the initiatives financed under the Institutional grants. However, participation in this sub-component of the Project is voluntary.

**4. Deliverables:**

Improved governance at the State and Institutional levels through a combination of the following deliverables are expected under this sub-component:

S. No	Activity	Deliverables
i	Establishment of Quality Assurance Practices	<ul style="list-style-type: none"> <li>• Well established quality assurance mechanism in States</li> <li>• Number of institutions with quality benchmarking</li> </ul>
ii	Establishing a Task Force for strategic planning for Technical Education	<ul style="list-style-type: none"> <li>• Purposeful development of engineering education in States</li> </ul>
iii	Establishment of Curriculum Development Cells (CDC)	<ul style="list-style-type: none"> <li>• Modern curricula available to institutions</li> </ul>
iv	Spreading best practices to non-project Institutions	<ul style="list-style-type: none"> <li>• Increased number of quality faculty</li> <li>• Improved academic achievements of students</li> </ul>

<sup>3</sup> The Project provides grants through an Innovation Fund to States and Universities to promote initiatives that will enhance achievements of the Project objectives and additionally qualitatively improve engineering education.

v	Establishing Industry-Institute Partnership Promotion Cells	<ul style="list-style-type: none"> <li>• Better placement of students in industries</li> <li>• Better placement of faculty in industries</li> <li>• Increased employment</li> <li>• Increased number of industry sponsored Projects and consultancy assignments</li> </ul>
vi	Best Academic and Governance Practices Workshops	<ul style="list-style-type: none"> <li>• Implementation of Best practices by increased number of institutions</li> </ul>
vii	Conducting Professional Development Programme for Project and Technical Education administrators	<ul style="list-style-type: none"> <li>• Effective Project implementation and implementation of academic and non-academic reforms</li> </ul>
viii	Establishing Task Force for Effective System Governance	<ul style="list-style-type: none"> <li>• Guidelines for effective functioning of Board of Governors</li> </ul>

#### 5. Selection:

This fund will be made available for proposals from the eligible entities during the second year of the Project, once selection of institutions and Project implementation is well under way. Proposals will be received up to the end of 3rd year of the Project for execution in the final year.

Each proposal would typically include the objective, the initiative it will achieve, the innovation of the proposed initiative, the expected impact on management, and the expected impact on quality of engineering education, related performance indicators with targets, fund requirements and a sustainability plan.

Proposals will be evaluated by an evaluation committee (constituted by the NPD). Improvements suggested by the Committee will need to be carried out by the applicants within 30 days of transmission of Committee's recommendations to the SPFUs. All proposals from States need to be submitted to the NPIU only through SPFUs. A group of Centrally Funded Institutions need to submit the proposals to the NPIU directly. Affiliating universities would collaborate with SPFUs to submit and administer the innovation grant through mutual understanding.

#### 6. Funding Pattern:

Funding will be available on a merit basis. The grants and related expenditures will be audited through the SPFU audits. The grants are expected to primarily finance consulting services and operational costs, such as travel and workshops. Costs would be financed according to the overall costing share percentage with each State (75 : 25 or 90 : 10 as the case may be). The overall administrative guidelines for these grants could be modified during implementation.

7. The following activities are envisaged under the sub-component:

S. No	Activity	Performed by	Funding through
i	Establishment of Quality Assurance Practices	State Government	SPFU
ii	Establishing a task force for strategic planning for Technical Education	State Government	SPFU
iii	Establishment of Curriculum Development Cells (CDC)	Affiliating Universities	SPFU
iv	Spreading best practices to non-project Institutions	<ul style="list-style-type: none"> <li>• State Government</li> <li>• Affiliating Universities</li> <li>• Group of at least 3 Project institutions</li> </ul>	SPFU
v	Establishing Industry-Institute Partnership Promotion Cells	State Government	SPFU
vi	Best Academic and Governance Practices Workshops	State Government	SPFU
vii	Conducting Professional Development Programme for Project and Technical Education administrators	NPIU and MHRD	NPIU
		SPFU and affiliating universities	SPFU
viii	Establishing Task Force for Effective System Governance	MHRD	NPIU

**(i) Establishment of Quality Assurance Practices in States, Union Territory Governments and Centrally Funded Institutions:**

Quality Assurance (QA) practices are expected to be on lines of the practices and norms of NBA/NAAC but are not to be in conflict with them. The purpose of QA would not only be a State-level quality-benchmarking but a purposeful effort towards ensuring continual improvement in the standard of engineering education, both in the institutions and through the affiliating universities.

**(ii) Establishing a Task Force for strategic planning for Technical Education by State Governments:**

The Task Force would typically include Senior State Officials (e.g. State Secretary), industry leaders and prominent academicians. The tasks could for example include:

- Mapping demographic and economic conditions across the State,
- Mapping of the need for professional/technical competencies,
- Analyzing the match or mismatch between technical manpower needs and current capacity, considering quality, urban/rural, gender and other disparities, affordability and other variables,
- Gaining consensus on long-term goals and strategies accompanied by benchmarks to increase the quality of engineering/Technical Education (UG, PG and R&D) in the State.

The strategic plan is expected to serve as a framework to prompt policy changes necessary to address quality/capacity issues across the State’s Engineering/Technical Education System. The strategic planning process could be the foundation for development of a qualification framework for all education levels in selected States with emphasis on qualifications in Engineering/Technical Education fields.

**(iii) Establishment of Curriculum Development Cells (CDC) in Universities that affiliate Project Institutions:**

The purpose is to establish modern curriculum development practices in the affiliating universities in order that curricula and syllabi for engineering disciplines at UG and PG levels get timely and effectively modernized and continue to be periodically revised to meet the labour market requirements. Involvement of employers including core industry is considered as an essential requirement. It is expected that the benefit of improved curricula and syllabi will be extended by the participating universities to non-project institutions also.

**(iv) Spreading best practices to Non-Project Institutions:**

The purpose is to finance the State Governments and Affiliating Universities to prepare non-TEQIP institutions for academic autonomy. Other possible initiatives could be to increase faculty development programmes within pedagogy or knowledge up-gradation, promote adoption of academic innovations, spreading good practices for joint industry-academia collaboration and specific programmes to enhance learning outcomes of weak students.

**(v) Establishing Industry-Institute Partnership Promotion Cells:**

It is felt that many institutions are not able to enter into partnerships with industries for securing consultancies, R&D Projects, placements of faculty and students for industrial training, job placement for students, Continuing Education programmes, joint theses guidance, etc. Locational disadvantage, among others, is an important reason for this situation, some institutions may not be located in industrial clusters and are therefore not able to frequently interact with industries. In order to improve this situation in a definite manner, States may consider establishing such Cells, which will facilitate Industry-Institute Interaction Cells (IIIC) formed at the institutions in collaboration with State Private Sector Advisory Group (S-PSAG). States will be funded based on the merit of their proposals.

**(vi) Sharing of Best Academic, Administrative and Governance Practices through workshops and specific groups:**

Through support under sub-component-1.1 and the Innovation Fund for State-level management, a number of States and institutions are expected to develop best practices and effective policies that other governments and institutions could benefit from. For this purpose, the Project will put forward grants to States interested in showcasing and discussing best practice within specific areas of TEQIP. Importantly, the aim of these workshops would be knowledge sharing and discussions whereby best practices will emerge/be recognized through exchange of experience. The aim is not self-promotion. Development of sustained peer-to-peer networks would also be a benefit from these workshops. In addition to sharing of best practice from TEQIP institutions, outside experts could also be invited to share their experiences and ideas. The aim of this initiative would be to increase the exchange of best practices among Institutional leaders and State officials, in particular at levels below the Director/Vice Chancellor.

Potential topics for these workshops could be:

- Assessment of student learning,
- Promoting equity, such as remedial education, soft skills and communication training,
- Faculty development,
- Successful models for joint R&D with industry,
- Institutional Strategic Planning, and
- Monitoring and Evaluation of TEQIP Institutions.

Both States and institutions are welcome to organize these workshops on a voluntary basis. Funding will be available on a competitive basis. Proposals will be evaluated by an Evaluation Committee. SPFUs are encouraged to organize these workshops at their level, ensuring participation of all of their Project Institutions and participation of key officials from at least two neighboring SPFUs. A group of 3 to 5 CFIs is also encouraged to organize such workshops, while ensuring participation from the SPFUs and Project Institution from the States of their location.

The workshop dates and topics will need to be announced on the NPIU's website at least one month in advance in order to allow interested States and institutions to express their interest in participation. However, the organizers will be allowed to limit the maximum number of participants. Material and presentations from the workshop would be posted on a freely available website, for which Internet address will be provided to NPIU.

**(vii) Conducting professional Development Programme for Project and Technical Education Administrators at the level of National, State and Affiliating Universities:**

Professional development for groups of TEQIP, Technical Education administrators and leaders would be financed. Two of the potential professional development activities are:

- Study tours in India as well as to foreign countries with strong policy leadership/planning entities for higher/Technical Education; and
- Short-term professional training programmes.  
(Guidelines for International travel are given in Annex-VII)

The focus of the programmes will be on practices and policies to improve management of Technical Education, but could in a few relevant cases equally include professional development within Project management and management in general.

The professional development programme would be available to key officials and Project implementers from MHRD, NPIU, State Technical Education Departments, SPFUs and affiliating universities.

The minimum group size for these activities would be 7-10 participants. NPIU would initiate and organize such professional development programmes. Detailed motivation and learning objectives of the programmes would be described along with a justification of the chosen provider/destination and institutions to visit. All foreign study tours financed under this programme will be reviewed by the National Project Director in accordance with the Guidelines (refer Annex-VII).

**(viii) Establishing Task Force for Effective System Governance by MHRD:**

The purpose is to establish a Task Force at the National level with approval of the NPD composed only of existing chairs and members of Board of Governors that will be charged with developing and recommending guidelines for the effective functioning of Board of Governors. The functioning of this Task Force will be supported administratively and financially by the NPIU. The guidelines could be developed into a publication for existing and newly appointed BoG members. The guidelines may include:

- General principles of governance,
- The role of the governing body, and
- Legal and ethical aspects of corporate governance.

The support could be extended to include discussion and dissemination conferences for BoGs. Intermediate outcomes of this aspect of the capacity building will be a set of guidelines for Board of Governors, and awareness among the Board of Governors regarding their role and responsibilities and the available tools at their disposal.

States could also propose to organize well planned orientation programmes for Board members in order to familiarize the Board members with important topics for understanding the affairs of a higher education institution, such as academic management, higher education financing and auditing, performance measurement and the powers of the Board.

**1. Objective:**

The broadly defined objectives of Project management, monitoring and evaluation are:

- To plan, organize and manage resources to bring about the successful completion of Project goals and objectives.
- To support innovations for improving State and Institutional level management and education practices.
- To monitor and evaluate the performance of Project Institutions and to identify variance, if any from the Institutional plan and suggest remedial measures, as required.
- To mentor the Project Institutions towards quality improvement and audit the Institutional performance in achieving the Institutional goals.

**2. Project Management:****• Objective:**

To ensure the effective implementation of the Project at all levels and achievement of the Project objectives and deliverables under each component.

**• Scope:**

MHRD, NPIU, SPFUs and Project institutions will be covered under this sub component. The non-project institutions participating in the sub-component on pedagogical training will also be covered.

**• Strategy:**

Ensuring successful and timely implementation of the Project at Centre/State/Institutional levels through coordinating resources and integrating all the activities of the components of the Project in accordance with the Project Implementation Plan, to achieve the targeted deliverables.

**• Funding Pattern:**

The activities of National Steering Committee (NSC), National Evaluation Committees (NECs), National Project Directorate (NPD), National Private Sector Advisory Group (N-PSAG) and National Project Implementation Unit (NPIU) will be funded through NPIU. The activities of State Steering Committee, State Private Sector Advisory Group (S-PSAG) and State Project Facilitation Unit (SPFU) will be funded through SPFU. The expenses on BoG activities will be met through the Institutional grants.

- **The following activities are envisaged for effective Project Management:**

The Project will be managed in a participatory manner at the National, State and Institutional levels as follows:

- (i) At the National level, the Project will be guided by a National Steering Committee (NSC). The NSC will validate recommendations of National Evaluation Committees (NECs) for selection of States and institutions under the Project, and approve corresponding funding for their activities. The NSC will also provide overall policy directions for Project activities and for implementation of systemic policy reforms.
- (ii) The Project at the National level will be managed by a National Project Directorate, located in the MHRD and headed by National Project Director (NPD) at the level of Additional Secretary/Joint Secretary to the Government of India. The NPD will be assisted in his/her work by a National Project Directorate in MHRD and National Project Implementation Unit (NPIU) provided with adequate key and supporting staff.
- (iii) At the State level, the Project will be guided by State Steering Committee (SSC) assisted by their respective State Project Facilitation Unit (SPFU) located within the Department of the State Government responsible for Technical Education.
- (iv) At the Institutional level, the Project will be implemented by the Institutional TEQIP Units under the overall guidance of their respective Boards of Governors (BoG).
- (v) A National Private Sector Advisory Group (N-PSAG) will advise the NSC on enhancing industry-institution linkages.
- (vi) A State Private Sector Advisory Group (S-PSAG) will advise the respective SSC on enhancing industry-institute linkages.

### **3. Project Monitoring:**

- **Objective:**

To provide reasonably complete, correct and reliable data through a web-based Management Information System (MIS) to stakeholders that will lead to improvements in Project implementation, decision making and learning from shortcomings.

- **Scope:**

The Project monitoring and reporting activities are mandatory for the NPIU, SPFUs and all Project Institutions and also non-project institutions.

- **Strategy:**

All the stakeholders (all institutions under the Project as well as the non-project institutions participating in pedagogical training, SPFUs, NPIU and MHRD) will be linked through a Management Information System (MIS) being developed for the Project.

- **Funding Pattern:**

All activities under Project monitoring will be funded by the NPIU.

• The following activities are envisaged for Project Monitoring:

(i) Monitoring through key performance indicators:

Following are the Key Performance Indicators (KPI's) to monitor the progress of the Project:

Project Objectives		Project Outcome/Output Indicators
<b>Component 1: Improving Quality of Education in Selected Institutions</b>		
<b>Sub-Component 1.1:</b>		
Strengthening Institutions to Improve Learning Outcomes and Employability of Graduates	<p>To assess the effectiveness of funds utilized for the teaching, training, learning and research equipment, library, computers, etc. by the institutions</p> <p>To assess the effectiveness of obtaining academic autonomy status</p> <p>To assess the effort made by institutions for upgrading qualifications of faculty members</p> <p>To assess the generation, retention and utilization of IRG</p> <p>To assess the existing teaching and staff vacancies and effort made by institution for filling the vacancies</p> <p>To assess the effectiveness of equity at Institutional level</p>	<p>Increase in the satisfaction index of student and faculty</p> <p>Percentage of curricula revised</p> <p>Percentage of faculty enrolled in M. Tech and PhD</p> <p>Rule in position</p> <p>Percentage of faculty enrolled</p> <p>Transitional rate of students from disadvantaged backgrounds from the first to the second year.</p>
<b>Sub-Component 1.2:</b>		
Scaling-up Post-graduate education and demand-driven R&D&I	<p>To assess the effectiveness of funds utilized for the teaching, training, learning and research equipment, library, computers, etc. by the institutions</p> <p>To assess the effectiveness of scaling-up post-graduate Technical Education</p> <p>To assess the effectiveness of collaborations made with other institutions in India and abroad</p>	<p>Increase in the satisfaction index of student and faculty</p> <p>Increased enrolment for M.Tech and PhD</p> <p>Percentage of co-authored publications in refereed journals</p>

<p><b>Sub-Component 1.3:</b></p> <p>Faculty Development for Effective Teaching (Pedagogical Training)</p>	<p>To assess the effort made by institutions providing pedagogy training to faculty</p> <p>To assess the effectiveness of pedagogy training</p>	<p>Percentage of faculty who have undergone modern pedagogy training</p> <p>Percentage of students satisfied with the quality of teachers</p>
<b>Component 2 : Improving System Management</b>		
<p><b>Sub-Component 2.1:</b></p> <p>Capacity Building to Strengthen Management</p>	<p>To assess the effectiveness of capacity building at Institutional level</p>	<p>Improved understanding of the need and ways for increased autonomy, improved governance, and new instruments for accountability</p>
<p><b>Sub-Component 2.2:</b></p> <p>Project Management , Monitoring and Evaluation</p>	<p>To assess the effectiveness of the management at all levels</p> <p>To assess the effectiveness of mentoring, reviews, surveys &amp; audits conducted in the Project at the Institutional level</p> <p>To assess the effective use of MIS in the Project Institutions</p>	<p>Improved Project implementation at all levels resulting in increased achievements of Project targets by the participating States/ institutions</p> <p>Percentage increase in the achievements of the targets by the Project Institutions</p> <p>Precise and reliable information/ data through web based MIS to stakeholders for improved Project implementation</p>

**(ii) Development of Web Based Management Information System (MIS):**

A web-based Management Information System (MIS) which is being developed is a tool to achieve the M & E objectives of the Project. MIS will track implementation of key Project inputs, outputs, outcomes and impact corresponding to Project activities through performance indicators developed under the Project.

It will be a web-based application with Graphic User Interface (GUI), which will allow timely and transparent storage of data, processing and retrieval of data, flow of information, searching and sorting of specific information uniformly, accurately and quickly and generation of reports.

The MIS developed under the Project will link all the Project Institutions, the SPFUs at the State-level, and the MHRD and NPIU at the national-level. All Project Institutions will access MIS through the internet. Access will be conditional to persons nominated by the institutions and with defined level of access and security measures.

The MIS will also have a limited interface for access by the general public. The MIS will be linked to the web-sites of the State and Central Directorates responsible for Technical Education, some non-project Institutions and other relevant websites like those of the AICTE, NBA, NAAC and MHRD.

**4. Project Evaluation:****• Objective:**

To evaluate the effectiveness of the Project toward its goals by:

- Assessment of Institutional performance towards improving education quality and service delivery through Institutional performance audits towards up-gradation in quality education.
- Assessment of Institutional data through data-audits for ensuring good data quality.
- Assessment of the implementation strategy through implementation surveys adopted during Project design and corrective measures to be taken for improvement.
- Assessment of performance achieved against set targets through bi-annual and mid-term reviews conducted jointly by MHRD, NPIU and the World Bank.
- Overall assessment of the objectives achieved under the Project through a rigorous impact assessment study.

**• Scope:**

The Project evaluation activities are mandatory component of the Project for NPIU, SPFUs and all the Project Institutions.

**• Strategy:**

The Project evaluation activities will cover all the Project Institutions. The assessment surveys and audits will be conducted until the Project-end. Consulting firms will be employed to conduct the surveys as and when required as per agreed norms and guidelines. Performance audits will be conducted twice in a year.

**• Funding Pattern:**

All activities under Project evaluation, except mentoring will be funded by the NPIU/SPFU. The expenses incurred for mentoring of the institutions will be met through respective Institutional grants.

- **The following activities are envisaged for Project Evaluation:**

**(i) Assessment Surveys:**

The assessment surveys will measure changes in the quality of education in the Project Institutions through formative and summative assessments of performance. Assessment surveys to be undertaken are following:

- **Student Satisfaction Surveys:**

To measure the quality of education being provided by Project Institutions, annual student satisfaction surveys will be conducted. The surveys will measure student's satisfaction with methods of teaching and learning, quality of faculty, infrastructure and facilities available for academic and other co-curricular activities etc.

- **Faculty Satisfaction Surveys:**

To measure the quality of education, annual faculty satisfaction survey will also be conducted. The surveys will measure faculty's satisfaction with the quality of students, opportunities available for career advancement, up-gradation of skills viz. educational qualification, modern pedagogical training, etc.

- **Implementation Surveys:**

The implementation survey will be conducted annually to get feedback from officials of implementing agencies [MHRD, NPIU, and SPFU] and personnel from institutions involved in Project implementation about Project design, implementation, impact and performance. The feedback will be assessed by the NPIU and the World Bank and shared with all respondents so that the outcomes of the feedback could be utilized for corrective action at the National, State and Institutional levels. The surveys will be web based. The survey will be conducted by the NPIU in consultation with World Bank.

- **Employer Satisfaction Surveys:**

The employer satisfaction surveys will assess the skills of graduates from Project Institutions. The change in employer satisfaction will be a measure of the quality of education provided by Project Institutions. This will be undertaken at the end of second, third and fourth year of the Project.

**(ii) Institutional Audits:**

Audits will be conducted to ascertain the validity and reliability of information and to also provide an assessment of Project's internal control. Auditors will assess progress made under the Project and processes related to technical and fiduciary aspects of Project. These audits will verify implementation in accordance with agreed NPIU/MHRD-World Bank norms and guidelines and will combine factual assessment with qualitative assessment.

- **Performance and Data Audits:**

Performance and Data audits will assess progress made by all Project Institutions to achieve set goals as per their Institutional plan like implementation of agreed reforms, accuracy, and validity of data, progress in faculty development, utilization of resources and other targets set by the institution to achieve academic excellence. It will be done six-monthly by the performance auditors. The performance auditors will be Senior academician (preferable retired). They will be appointed for State institutions by the SPFUs and for CFIs by the NPIU. The performance auditors will be assisted by skilled professionals for conducting the data audits.

- **Fiduciary Audits:**

The fiduciary audits will cover post-procurement reviews and financial management reviews. The emphasis will be to verify the reliability and correctness of the data provided by the Project Institutions.

**(iii) Reviews:**

Reviews listed below will be performed under the Project to assess the qualitative improvements achieved by the individual institutions and States.

- **Mid Term Review Mission:**

A mid-term review under Project will be conducted jointly by the MHRD and the World Bank to assess the achievements of Project Institutions and States against the set targets. Mid term review is basically designed to acknowledge the good performing institutions and States and identify corrective measures for maximizing gains from the Project. The financial allocation of the institutions for the remaining period of the Project will also be adjusted based on their needs and performance.

- **Joint Review Missions (JRM):**

Joint Review Missions will be conducted six-monthly by the MHRD and the World Bank to review the overall progress achieved under the Project.

**(iv) Mentoring:**

Mentors will be assigned to all Project Institutions to provide continuous guidance for Project implementation. The mentors will also act as the performance auditors at different institutions<sup>4</sup> and assess the progress made by the individual institution six-monthly.

**(v) Resources Utilization Study:**

The objective of the resources utilization study is to assess the extent of availability and utilization with respect to equipment, books and learning resources and suggest strategies for their optimum utilization and sustenance. It will be conducted twice, one at the time of mid term review (after two years from the implementation of the Project) and at the end of the Project.

**(vi) Bibliometric Study:**

It will quantitatively assess research output and performance in engineering institutions. It will be conducted twice, before the commencement of the Project (for 102 TEQIP-I institutions having PG courses) and the other at the end of Project for Project Institutions.

**(vii) Impact Assessment Study:**

The objective of the impact assessment study will be to assess the impact that can be attributed to the Project in up-grading the quality of Technical Education offered by Project institutions and in producing higher skilled and more employable graduates. The study will measure the extent to which Project goals have been achieved and how the Project contributed towards their achievement. The study will be undertaken towards the end of the Project and will be outsourced to independent and competent third-party evaluator.

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<sup>4</sup> Other than the mentoring institutions.

## Section – IV

### ELIGIBILITY AND SELECTION PROCESS

#### 4.1 PARTICIPATION:

The Project will support around 200 eligible government funded, government aided and private unaided engineering institutions from the selected States.

Institutions need to apply only for one of the 2 sub-components (either 1.1 or 1.2).

#### 4.2 ELIGIBILITY CRITERIA FOR SELECTION OF STATES AND UNION TERRITORIES:

The States<sup>1</sup> will be selected based on merit of the proposals and on meeting the following eligibility criteria:

1. **Autonomous Status** : The States encourage the Project Institutions participating in sub-component 1.1 to obtain autonomous institution status as per UGC norms to enable them to improve quality and relevance of the knowledge and skills of the graduates through betterment in curriculum and assessment methods. The States need to issue orders to Project Institutions before signing of MoU with MHRD (refer Annex-III (a)) to seek and obtain autonomous status as per UGC norms and procedures (refer Annex-II).

**Continuation of funding to any Project Institution beyond the second year of the Project will be subject to its obtaining autonomous institution status.**

2. **Decentralization of financing framework:** The States need to create an enabling financing framework that decentralizes a reasonable share of financial discretion to the institution's leadership, incentivizes the institution to increase its internally generated revenue, and establish funds to allow for mid-term financial planning. The States need to:

- a) **Adopt a Block Grant pattern:** (as described in Annex-I) for fund release of, at least, the **non-salary non-Plan component** of grants to the funded (and aided as the case may be) Project Institutions. The funds' utilization is to be left to the decision of the Project Institution as it deems fit during each financial year to achieve its mission, respecting regular Government purchasing and accounting guidelines
- b) **Retention of IRG** : Permit Project Institutions to retain and utilize the revenue generated, including 100% of tuition and other fee and charges from students without adjusting the revenue retained in their non-Plan grants.
- c) **Establishment of four funds** : Permit the funded and aided Project Institutions to establish 4 funds (as recommended in Annex-I), each in a separate Bank account, namely the Corpus Fund, Faculty Development Fund, Equipment Replacement Fund and Maintenance Fund (for maintenance of buildings and equipment).
  - Direct Project Institutions to build these funds with annual contribution into each fund equal to at least 0.5% (total 2%) of annual recurring expenditure of the institution, and direct each Project Institution to additionally contribute from savings into the Corpus Fund;
  - Issue guidelines for proper management of four funds after closure of this Project.

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<sup>1</sup> Throughout the PIP, the word "State" implies both the State Governments and the Union Territory Governments.

- 3. Filling-up the faculty vacancies :** The benchmark value for the faculty positions on regular full time basis for institutions under sub-component 1.1 and 1.2 are mentioned in Section 4.3.1 and 4.3.2 respectively. The States need to authorize each Project Institution to fill up the all faculty vacancies (over and above the benchmark value), with appointments on 11 month or longer contracts till such time that these vacancies are filled on a regular basis.
- 4. Establishment of SPFUs :** Establish an SPFUs, located in the Department of the State Government responsible for Technical Education. The Head of SPFU shall be the Director or the equivalent officer responsible for Technical Education in that Department and will be designated as the State Project Advisor (SPA). The SPA will be assisted by a Project Coordinator who will be an academician. State should be willing to take a decision not to transfer / change the SPFU officials for the duration of the Project.
- 5. Constitution of Board of Governors in each Project Institution :** Establish a governance model that will hold each government funded and government aided institution accountable towards Government, civil society and industry. In particular, the States need to constitute/ensure formation of a BoG in each Project Institution as suggested in Section-V and ensure that the BoG meet at least 4 times in a year.
- 6. Reforms Implementation :** Each State is to implement the Project according to the Project Implementation Plan. This includes support and facilitation to implement both academic and non-academic reforms prescribed for implementation by all Project Institutions. (Refer Annex-I)
- 7. Conduct of Pedagogical Training :** Each State has to ensure that each Project Institution imparts pedagogical training to all the faculty members. The benefit of the basic pedagogical training is also to be extended to faculty of non -TEQIP institutions on cost sharing basis.

*Note: Release of the first installment of Central Project funds to a State for its institutions will be subject to receipt by the NPIU of the necessary documentation in respect of compliance with the eligibility criteria 1-5.*

#### **4.2.1 STATE SELECTION PROCESS:**

The steps for the selection of States are as follow:

- State Governments would be invited by MHRD to submit the State-proposals in the prescribed format (refer Annex-IV (A)) by a specified date. The State proposal should contain:
  - (i) Evidence that the State's participation in the Project is linked to its policy objectives for Technical Education
  - (ii) Evidence that the State has identified, understood and discussed with key stakeholders (State Finance Department and affiliating universities) the main steps and challenges for implementation of the required reforms
  - (iii) Evidence that the State has a plan to sustain the gains of the Project after it has been closed
- Receipt of State proposals by the NPIU.
- Evaluation of State Proposals by a National Evaluation Committee (NEC) appointed by the NPD in respect of eligibility criteria, actions proposed and information as required in the prescribed format. Evaluation parameters are given in Table-1.

- Feedback of NEC observations to the States for improvements in the proposal (if suggested by NEC).
- Consideration of new and improved State proposals.
- Review and validation of NEC’s reports on State proposals and its recommendations for State selection by the National Steering Committee (NSC).
- Announcement of Selection of States by NSC through the NPIU.

Table-1

**EVALUATION PARAMETERS FOR EVALUATION OF STATE PROPOSALS**

S. No.	Evaluation Parameters
(i)	Clarity and importance of the key policy objectives and challenges to enhance quality of Technical Education as whole in the State with participation in the Project
(ii)	Plan to implement increased academic autonomy to institutions (for component 1.1) and establishing a Board of Governors
(iii)	Capacity and plan to implement the enabling financing framework in consultation with the State Financing Department
(iv)	Plan and feasibility for sustaining the gains from the Project after Project closure

Note : The mechanics of proposal evaluation is given in Annex-XI (a).

**4.3 SELECTION OF INSTITUTIONS:**

From the selected States, institutions will be selected based on their meeting the eligibility criteria and merit of their proposals.

**4.3.1 SELECTION OF INSTITUTIONS UNDER SUB-COMPONENT 1.1 (STRENGTHENING INSTITUTIONS TO IMPROVE LEARNING OUTCOMES AND EMPLOYABILITY OF GRADUATES):**

The selection of Institutions will take place in two steps:

- Evaluation of Institutional Eligibility Proposals, and
- Evaluation of Institutional Development Proposals (IDPs)

In the first step, institutions<sup>2</sup> need to apply for selection of their “Eligibility Proposals” to the State Directorate of Technical Education (DTE). Once the Eligibility Proposals are selected, the institutions will be informed to submit the Institutional Development Proposals (IDPs).

**4.3.1 (a) SELECTION OF INSTITUTIONS UNDER SUB-COMPONENT 1.1 FROM NEW STATES LAGGING IN TECHNICAL EDUCATION:**

Solely for equity purposes, the NEC may recommend inclusion of institutions from the new states lagging in Technical Education that do not adequately meet eligibility criteria, subject to the condition that institutions are:

- at least four year old, and**
- show commitment to meet all the eligibility criteria of regular States during the Project period.**

<sup>2</sup> Institutions that had participated in TEQIP-I are not eligible for participation in this sub-component.

New states lagging in Technical Education are objectively defined as those, that either have only one engineering college or less than one engineering college per million population as per AICTE's approved list of engineering degree institutions in 2004 and have not participated in TEQIP phase-I (namely Andaman & Nicobar Islands, Arunachal Pradesh, Assam, Bihar, Chhattisgarh, Jammu & Kashmir, Meghalaya, Manipur, Mizoram, Rajasthan, Sikkim and Tripura).

#### 4.3.1.2 ELIGIBILITY CRITERIA:

Institutions to be eligible under the sub-component 1.1 should fulfill the following benchmarks:

**Table-2**

S. No.	Attainment Parameters	Benchmark values
1.	Agreement to implement all academic and non-academic reforms listed below: <ul style="list-style-type: none"> <li>• Curricular Reforms</li> <li>• Exercise of autonomies</li> <li>• Establishment of Corpus Fund, Faculty Development Fund, Equipment Replacement Fund and Maintenance Fund</li> <li>• Generation, retention and utilization of revenue generated through a variety of activities</li> <li>• Filling up all existing teaching and staff vacancies</li> <li>• Delegation of decision making powers to senior Institutional functionaries with accountability</li> <li>• Improved student performance evaluation</li> <li>• Performance appraisal of faculty by students</li> <li>• Faculty incentive for Continuing Education (CE), consultancy and R&amp;D</li> <li>• Accreditation of eligible UG and PG programmes</li> </ul>	Yes
2.	Age of the Institution from the start of its first academic session (in years) <ul style="list-style-type: none"> <li>a) Regular States</li> <li>b) New States lagging in Technical Education</li> </ul>	6 4
3.	Total number of UG and PG programmes currently conducted	4
4.	Faculty positions filled on regular full-time basis as percentage of the total faculty positions sanctioned in accordance with the AICTE prescribed student to faculty ratio	50%
5.	Presence of Board of Governors (as per recommended structure given in Section-V) with an eminent academician or industrialist as the Chairperson	Yes

#### 4.3.1.2 (a) ELIGIBILITY PROPOSALS AND ITS EVALUATION:

The institutions are required to prepare the eligibility proposals in the prescribed formats (Annex-IV-(B)(a)(i)) giving details about their attainment in respect of eligibility parameters and brief on strategic Action Plan for Institutional Development. The evaluation will be based on meeting the eligibility criteria (refer Table-2) and Institutional capability to undertake key reforms. (Refer Table-3)

The steps leading to evaluation of Eligibility Proposals and call for submission of Institutional Development Proposals (IDPs) are as follow:

- Advertisement will be issued in newspapers by the NPIU followed by State advertisement inviting eligibility proposals from the institutions in the prescribed format
- Only those institutions that meet the minimum benchmarks for eligibility criteria should prepare and submit eligibility proposals to the State department responsible for Technical Education (in most cases States Directorate for Technical Education, DTE)
- Eligibility proposals will be evaluated and ranked by the concerned Directorate for Technical Education and approved by the State Steering Committee (SSC). Only objective factors related to education policy are to be taken into account in this evaluation
- States forward the endorsed Eligibility proposals to the NPIU
- New CFIs shall submit the Eligibility proposals directly to the NPIU
- Scrutiny of Eligibility proposal as received from States, UTs and new CFIs by the NPIU for completeness
- Evaluation and ranking of Eligibility proposals by the National Evaluation Committee (evaluation scheme is given in Table-3)
- Ranking of all received proposals will be done by the National Evaluation Committee (NEC) in two groups (a) proposals from new States, new CFIs and new lagging States in Technical Education (b) proposals from old States. It is estimated that 40-50 institutions will be selected from group (a) and 100-110 institutions from group (b)
- Review by the NPD of the NEC's recommendations and short listing of institutions from various States, UTs and new CFIs, for inviting to submit the Development proposals
- NPIU will forward the list of the eligible institutions to States and CFIs for invitation of Institutional Development Proposals (IDPs). All the selected and non-selected institutions will receive feedback on their proposals

**Table-3**

**EVALUATION PARAMETERS AND EVALUATION SCHEME FOR ELIGIBILITY PROPOSALS UNDER SUB-COMPONENT 1.1**

<b>Evaluation Parameters</b>	<b>Evaluation Scheme</b>
• Quality of SWOT analysis	25
• Clarity and importance of the objectives and expected results for Institutional strengthening and employability and learning outcomes of graduates; and the link with the SWOT analysis	25
• Quality and feasibility of the action plan to implement the Project, and the link with the objectives and expected results	25
• Implementation of reforms, capacity and plan for obtaining the effectively utilizing increased autonomy with accountability	25
<b>Total</b>	<b>100 Marks</b>

**Note :** The mechanics of proposal evaluation is given in Annex-XI (b).

#### 4.3.1.3 DEVELOPMENT PROPOSAL AND ITS EVALUATION UNDER SUB-COMPONENT 1.1:

The selected institutions will be invited for submission of Institutional Development Proposals (IDPs).

The Institutional Development Proposals (IDPs) will be evaluated in the following manner:

- States invite IDPs from the selected institutions
- States screen IDPs for completeness and short-list the institutions
- States forward short listed IDPs to the NPIU
- Eligible CFIs shall submit their IDPs directly to the NPIU
- NPIU screens the submitted proposals for completeness (only complete proposals will be placed before the NEC)
- Evaluation and ranking of IDPs by the NEC (evaluation scheme is given in Table-4)
- Review and validation of the NEC's report on IDPs and its recommendations for selection and fund allocation by the National Steering Committee
- Declaration of selected institutions to States with feedback to selected and non-selected institutions regarding the evaluation of their proposal. The selection of certain institutions may be subject to a few mandatory improvements being made in their IDP.
- Declaration of selected CFIs after signing of Memorandum of Understanding (refer Annex-III (b))

**Table-4**

#### EVALUATION PARAMETERS AND EVALUATION SCHEME FOR INSTITUTIONAL DEVELOPMENT PROPOSALS UNDER SUB-COMPONENT 1.1

S. No.	Evaluation Parameters	Evaluation Scheme
1	<b>Institutional Preparedness and Implementation Feasibility</b>	
	• Overall proposal implementation feasibility, including its implementation arrangements plan and quality of expected results	15
	• Quality of SWOT analysis including links with the proposed action plan to mitigate Institutional weakness	10
	• Reasonability of proposed proposal budget	5
	• Engagement of departments/faculty in the proposal preparation and implementation	5
	• Coherence of proposal with State's/regional development plan	5
	<b>Sub-Total (a)</b>	<b>40 Marks</b>
2	<b>Clarity and Quality of the Action Plan to achieve</b>	
	• Autonomy, accreditation and implementation of reforms	15
	• Improvement in employability of graduates	10
	• Increased learning outcomes of students	10
	• Improvement in learning of weak students	10
	• Improvement in faculty qualifications including pedagogical training	10
	• Interaction with industry	5
<b>Sub-Total (b)</b>	<b>60 Marks</b>	
<b>Total</b>		<b>100 Marks</b>

**Note :** The mechanics of proposal evaluation is given in Annex-XI (c).

#### 4.3.2 SELECTION OF INSTITUTIONS UNDER SUB-COMPONENT 1.2 (SCALING-UP PG EDUCATION AND DEMAND-DRIVEN R&D&I):

The institutions will be selected from the selected States subject to their meeting the eligibility criteria and based upon the merit of their Institutional Development Proposals (IDPs).

##### 4.3.2.1 ELIGIBILITY CRITERIA:

Institutions to be eligible for participation in the Project under the sub-component 1.2 must meet the following benchmarks:

**Table-5**

S. No.	Attainment Parameters	Benchmark values
1.	Agreement to implement all academic and non-academic reforms given as below: <ul style="list-style-type: none"> <li>• Curricular Reforms</li> <li>• Exercise of autonomies</li> <li>• Establishment of Corpus Fund, Faculty Development Fund, Equipment Replacement Fund and Maintenance Fund</li> <li>• Generation, retention and utilization of revenue generated through variety of activities</li> <li>• Institutions to fill-up all existing teaching and staff vacancies</li> <li>• Delegation of decision making powers to senior functionaries with accountability</li> <li>• Improved student performance evaluation</li> <li>• Performance appraisal of faculty by students</li> <li>• Faculty incentive for Continuing Education (CE), consultancy and R&amp;D</li> <li>• Accreditation of UG and PG programmes</li> </ul>	Yes
2.	Availability of academic autonomy as recognized by UGC for both UG and PG programmes	Yes
3.	Presence of Board of Governors with an eminent academician or industrialist as the Chairperson	Yes
4.	Percentage of eligible UG programmes accredited or applied for	60%
5.	Percentage of eligible PG programmes accredited or applied for	40%
6.	Cumulative number of PhDs produced in the last three academic years (2006-07, 2007-08, 2008-09) or Cumulative number of M.Tech. produced in the last three academic years (2006-07, 2007-08, 2008-09)	5 50
7.	Faculty positions filled on regular full time basis as percentage of total faculty positions sanctioned in accordance with the AICTE prescribed student to faculty ratio	65%
8.	Percentage of regular faculty with PhD in engineering* as percentage of total faculty	15%

\* PhD in engineering and science for Special Category States

#### 4.3.2.2 EVALUATION OF INSTITUTIONAL DEVELOPMENT PROPOSAL UNDER SUB-COMPONENT 1.2:

Institutions meeting the above eligibility criteria are invited to submit their development proposals.

Institutional Development Proposals (IDPs) will be evaluated as per the following:

- States invite through advertisement in newspapers for submission of “IDPs” from eligible institutions [only those institutions that meet the eligibility criteria should prepare and submit such proposals] (Format given in Annex-IV-(B)(b))
- States screen IDPs for completeness and short-list the institutions
- States forward short listed IDPs to the NPIU
- NPIU screens the received IDPs for completeness (only complete proposals will be evaluated)
- Evaluation and ranking of IDPs by the NEC (evaluation scheme is given in Table-6)
- Review and validation of the NEC’s report on IDPs and its recommendations for selection and fund allocation by the National Steering Committee
- Declaration of selected institutions to States with feedback to selected and non-selected institutions regarding the evaluation of their proposal. The selection of certain institutions may be subject to a few mandatory improvements to be made in their IDPs.
- Declaration of selected CFIs after signing of Memorandum of Understanding (refer Annex–III (b))

**Table-6**  
**EVALUATION PARAMETERS AND EVALUATION SCHEME FOR INSTITUTIONAL DEVELOPMENT PROPOSALS UNDER SUB-COMPONENT 1.2**

S. No	Evaluation Parameters	Evaluation Scheme
<b>1</b>	<b>Institutional Preparedness and Implementation Feasibility</b>	
	• Overall implementation feasibility, including its implementation arrangements plan and quality of expected results	15
	• Quality of SWOT analysis including links with the proposed action plan to mitigate Institutional weaknesses	10
	• Reasonability of proposed proposal budget	5
	• Engagement of departments/faculty in the proposal preparation and implementation	5
	• Coherence of proposal with State’s/regional development plan	5
	<b>Sub-total (a)</b>	<b>40</b>
<b>2</b>	<b>Clarity and Quality of the Action Plan to achieve;</b>	
	• Scaling-up research and innovation	15
	• Scaling-up Ph.D. enrolment	10
	• Scaling-up enrolment into Master programmes	10
	• Research collaborative activities with institution at National and International level	10
	• Improving interaction with industry	10
	• Improving faculty qualifications	5
<b>Sub-total (b)</b>	<b>60</b>	
<b>Total marks</b>		<b>100</b>

**Note :** The mechanics of proposal evaluation is given in Annex-XI (d).

**4.3.3 SELECTION OF INSTITUTIONS UNDER SUB-SUB-COMPONENT 1.2.1 (ESTABLISHING CENTERS OF EXCELLENCE):**

Only the institutions, which have already been selected under sub-component 1.2 on invitation, can submit the proposals for establishing one or a maximum of two Centers of Excellence (CoE) for receiving an additional grant of approximately Rs.5.00 Crore for each CoE. Expected period for invitation from NPIU / MHRD is three months from the date of commencement of the Project. The institution desirous of having two Centers of Excellence needs to submit separate proposals for each CoE.

**4.3.3.1 ELIGIBILITY CRITERIA:**

Institutions to be eligible under the sub-sub-component 1.2.1 must meet the following benchmarks:

**Table-7**

S. No.	Attainment Parameters	Benchmark values
1	Availability of academic autonomy	Yes
2	Percentage of eligible UG programmes accredited or applied for	75%
3	Percentage of eligible PG programmes accredited or applied for	60%
4	Cumulative number of PhDs produced in the last three academic years (2007-08, 2008-09, 2009-10) in the departments participating for establishing CoEs	12
5	Faculty positions filled on regular full time basis as percentage of total faculty positions sanctioned in accordance with the AICTE prescribed student to faculty ratio in the departments participating for establishing CoEs	70%
6	Percentage of regular faculty with PhD in engineering as percentage of total faculty	20
7	Number of sponsored Research Projects completed in the last three academic years (2007-08, 2008-09, 2009-10)	07

Note: The benchmarks referred for sub-component 1.2 are deemed to have been fulfilled by these institutions.

**4.3.3.2 DEVELOPMENT PROPOSAL AND ITS EVALUATION UNDER SUB-SUB-COMPONENT 1.2.1 :**

The institutions can submit the “Development Proposals” for establishment of Centers of Excellence (CoE) only after attaining all the above-mentioned eligibility parameters.

The steps for evaluation of these proposals are:

- Invitations by e-mail to the institutions selected under sub-component 1.2 to submit proposals to NPIU for establishing Centers of Excellence in the prescribed format (Format given in Annex-IV-(B)(c))
- NPIU screens the submitted proposals for completeness
- Incomplete proposals will be returned to the institutions
- Evaluation and ranking of proposals by an National Evaluation Committee (NEC) (evaluation scheme is given in Table-8), taking into account the suggestions from the domains experts (Indian & Foreign) and Indian industry experts
- NPIU will send comments given by the National Evaluation Committee (NEC) to institutions for improvements of their proposals

- The proposals ranked “good” may be asked to make presentation before the National Evaluation Committee (NEC)
- NPIU will send comments and recommendations from the National Evaluation Committee (NEC) to the National Steering Committee (NSC)
- Selection of development proposals by the National Steering Committee along with fund allocation
- Declaration of selected institutions
- Improved proposals to be reconsidered through the same selection process

**Table-8**  
**EVALUATION PARAMETERS AND SCHEME FOR DEVELOPMENT PROPOSALS UNDER**  
**SUB-SUB-COMPONENT 1.2.1**

S.No.	CATEGORIES	MARKS
<b>1</b>	<b>Institutional Preparedness and Implementation Feasibility</b>	
	<ul style="list-style-type: none"> <li>• Applicability of focussed research, commercialisation of research and preparedness for obtaining patents</li> </ul>	15
	<ul style="list-style-type: none"> <li>• Quality of researchers involved/ engagement of various departments and disciplines in CoE activities</li> </ul>	10
	<ul style="list-style-type: none"> <li>• Reasonability of proposed budget and administration of CoE</li> </ul>	10
	<ul style="list-style-type: none"> <li>• Coherence of the proposal with National / State / Regional development and its importance for development</li> </ul>	5
	<b>Sub – total (a)</b>	<b>40</b>
<b>2</b>	<b>Clarity and Quality of Action Plan to achieve</b>	
	<ul style="list-style-type: none"> <li>• Quality of Proposal with full justification including Gap Areas and innovative nature of proposal</li> </ul>	20
	<ul style="list-style-type: none"> <li>• Synergies and benefits from collaboration with national and international partners</li> </ul>	20
	<ul style="list-style-type: none"> <li>• Demand driven, proof in terms of Tie ups / MoUs with Private &amp; Public Sector Industry and obtaining deliverables from Institution-Industry Interaction</li> </ul>	15
	<ul style="list-style-type: none"> <li>• Scale up PG education and improve quality of UG and PG courses</li> </ul>	5
	<b>Sub – total (b)</b>	<b>60 Marks</b>
	<b>Total</b>	<b>100 Marks</b>

## Section – V

### PROJECT IMPLEMENTATION

#### **5.1 IMPLEMENTATION ARRANGEMENT AT THE NATIONAL, STATE AND INSTITUTIONAL LEVELS:**

The implementation arrangement at various levels are illustrated in Chart-I (Page No.82) and described subsequently.

##### **5.1.1 National Level Implementation Arrangements:**

The composition and functions of the three bodies--the National Steering Committee (NSC), the National Project Directorate and the National Project Implementation Unit (NPIU) responsible at the Central level for overall guidance, policy decisions and Project management, coordination and implementation are described below:

##### **5.1.1.1 National Steering Committee (NSC):**

###### **a. Composition:**

The Ministry of Human Resource Development (MHRD) will constitute a 16 member National Steering Committee (NSC), composed as below:

- Secretary of the Department of Higher Education in the Union Ministry of Human Resource Development, as the Chairperson,
- Secretary, Planning Commission/or his/her nominee,
- Secretary, Department of Science & Technology/or his/her nominee,
- Financial Advisor to MHRD,
- Chairpersons of the AICTE and the NBA,
- Four Chairpersons of State Steering Committees (SSCs), nominated by the Chairperson in annual rotation,
- Three members nominated by MHRD, who must be persons with recognized expertise and interest in higher Technical Education,
- One representative from the National Private Sector Advisory Group (N-PSAG),
- Two industry representatives, nominated one each by the Confederation of Indian Industry (CII) and the Federation of Indian Chambers of Commerce and Industry (FICCI), and
- The National Project Director (NPD) in the MHRD, as the Member-Secretary.

###### **b. Meetings:**

The NSC will meet bi-annually or as often as required. It will be assisted in its functioning by the National Project Directorate. The Chairpersons of some SSCs not represented in the NSC may also be invited to the NSC meetings. The operational costs of the NSC, including sitting fees for non-official members, will be financed by the Project through the NPIU's budget.

**c. Functions:**

The NSC, besides providing guidance and directions to the Project for maximizing gains from the Project, will:

- Review and validate recommendations of the National Evaluation Committees (NECs) for selection of States and UTs and their sponsored engineering education institutions and of the Centrally Funded Institutions (CFIs) for participation in the Project and decide their respective fund allocation under the 2 components, namely Improving Quality of Education in Selected Institutions, and Improving System Management. It will ensure fairness and transparency in the selection process for institutions.
- Refer back to the Evaluation Committee those Institutional proposals for which it is not satisfied with either the proposal quality or the recommended allocation;
- Review and validate recommendations of the NEC for selection of Centrally Funded Institutions (CFIs) for participation in the Project and decide their respective fund allocation;
- Recommend corrective actions with regard to the non-performing States, UTs and institutions including CFIs;
- Allocate funds to NPIU and SPFUs;
- Allocate funds from the Innovation Fund for activities that would enhance achievement of the Project Development Objectives; and
- Review findings from policy reform, thematic and evaluation studies.

**d. Schedule:**

The notification for constitution of the Committee will be issued by the National Project Directorate after declaration of effectiveness of the Project.

**e. Disclosure :**

The Minutes of all NSC meetings will, for ensuring transparency in selections and other decisions, be regularly published on the NPIU's website.

**5.1.1.2 National Evaluation Committees (NECs) :****a. Composition:**

The National Project Directorate will constitute National Evaluation Committees (NECs) consisting of academicians from India for the selection of States and UTs, and selection of institutions from the selected States and CFIs.

NPD will approve a panel of about 50-70 experts to serve on the National Evaluation Committees. Specific Evaluation Committees will also be formed by the NPD from the approved panel. There will be four different NECs for selection of States, selection of institutions under sub-component 1.1, sub-component 1.2 and sub-sub-component 1.2.1 and for selection of proposals for grants under the Innovation Fund. The NEC for selection of institutions under sub-sub-component 1.2.1, for the selection of establishing Centers of Excellence will be composed of subject experts only.

**b. Meeting:**

The National Evaluation Committees (NECs) will meet after receiving the proposals from the States, Eligibility and Development proposals of institutions from selected States and proposals for grants under Innovation Fund. It will be assisted in its functioning by the National Project Implementation Unit (NPIU).

**c. Functions:**

The National Evaluation Committees will carry out:

- Evaluation of proposals for selection of States,
- Evaluation of Eligibility and Development Proposals based on State's recommendations under sub-component 1.1 and evaluation of Development Proposals under sub-component 1.2,
- Evaluation of Development Proposals for establishing Centres of Excellence under sub-sub-component 1.2.1 from the institutions selected under sub-component 1.2,
- Evaluation of proposals for selection of Centrally Funded Institutions (CFIs) under sub-component 1.1 and sub-component 1.2,
- Evaluation of proposals for Innovation Fund, and
- Forwarding recommendations to NSC.

**5.1.1.3 National Project Directorate:**

This will be located within the Department of Higher Education (DHE) in the MHRD and Headed by the National Project Director (NPD). The National Project Director (NPD) will be nominated by the MHRD of the rank of an Additional Secretary/ Joint Secretary to the Government of India. The NPD will be assisted by:

- (i) National Project Directorate within the MHRD, and
- (ii) National Project Implementation Unit (NPIU) Headed by a Central Project Advisor (CPA).

The National Project Directorate under Headship of the NPD will consist of the Director in Department of Higher Education dealing with the Project, and adequate key and support staff including a finance specialist and a Project management specialist. It will be responsible for:

- Constituting a National Steering Committee and organizing its meetings,
- Constituting separate National Evaluation Committees (with well defined Terms of Reference) for selection of States and Institutions in sub-components 1.1, 1.2, 1.2.1 and also proposals for Innovation Fund,
- Overall Project fund management including Central fund releases, monitoring matching fund releases by the States/UTs, and monitoring overall utilization of Project funds,
- Ensuring timely release of funds to States/UTs/CFIs and other recipients as per approved annual allocations,
- Coordinating with Project States/UTs, concerned Ministries/ Departments of GoI and the World Bank,

- Overseeing Project implementation at the Central and State levels,
- Periodically reviewing Project progress,
- Facilitating holding of six-monthly Joint Review Missions (JRM)s, Mid-Term Review Mission, implementation support missions and such other reviews as may be called for, and
- Facilitating smooth and efficient working of the NPIU and ensuring adequate staffing of the NPIU with appropriate expertise at all times during the Project life.

#### **5.1.1.4 National Project Implementation Unit (NPIU):**

The existing NPIU will be restructured to carry out its functions through 6 functional Units and Headed by the Central Project Advisor (CPA):

- Institutional Development Unit,
- PG Education and R&D Unit,
- Faculty Development Unit,
- Financial Management Unit,
- Procurement Management Unit,
- Monitoring and Evaluation Unit

These Units may be modified by the CPA from time to time. The Institutional Development, PG Education and R&D and Faculty Development Units will be Headed by Senior Academicians (in the rank of Professor/Associate Professor), and experienced professionals will Head the Procurement, Finance and M&E Units. Each Unit head will be assisted by adequate number of suitable support staff. The Project will finance the salary cost of the full-time key and support staff in the NPIU, fee to Consultants, salaries of contractual support staff, expenditure on rent and refurbishment of hired offices, goods, minor works, assessment studies on Project activities, study tours and assistanceship programmes and training workshops, travel and other operating costs of the NPIU.

- a. Role of the Central Project Advisor:** The CPA will be suitably empowered, financially and administratively, to perform the functions listed below:
- Disseminating to States and CFIs, through its website information, on the Project design, eligibility and selection criteria for States and institutions and the associated processes,
  - Preparing Annual Work Plans, including Annual Budgets and detailed semi-Annual Plans and Budget,
  - Carrying out orientation of the NECs to their ToRs for their concerned selections,
  - Organizing receipt of proposals for selection from States and UTs, checking completeness of proposals, submitting results of scrutiny to the National Project Directorate for consideration of the National Steering Committee (NSC) and communicating the decisions of the NSC to the States along with recommendations for improvement of proposals, as may be required,
  - Organizing receipt of separate eligibility and full proposals from institutions for sub-Components-1.1 and 1.2,

- Organizing receipt, processing and evaluation of proposals for Innovation Fund, communicating recommendations for improvement of proposals if and as suggested by NEC and obtaining approval for funding from the NSC,
- Publishing on its website a summary of the Evaluations Reports of each institution stating the reasons for selection or non-selection of the institution,
- Arranging training for NPIU staff,
- Developing proposals for local technical assistance for activities undertaken at the national level and with approval from the NPD and facilitating/operationalizing the same,
- Organizing meetings of working groups, NECs, mentors, performance auditors, and such other committees/ groups of experts as are constituted from time to time,
- Building capacity of the States/ UTs and institutions for implementation of Equity Assurance Plan (EAP), Environment Management Framework (EMF) and Disclosure Management Framework (DMF) requirements,
- Liaising with SPFUs to discuss Project implementation progress to identify and solve emerging problems,
- Organizing professional development programmes for engineering education administrators and policy implementers (MHRD, State Directorates, NPIU, SPFUs, etc.),
- Organizing Joint Review Missions, Mid-term and End-term Missions and other Supervision and Implementation Support Missions, as required, and
- Carrying out other related tasks as may be requested by the NPD and the National Project Directorate.

**b. Role of NPIU's Functional Units:**

1. **Institutional Development Unit in the NPIU:** Under the guidance of the CPA, this Unit will:
  - Organize training workshops and technical assistance for SPFUs of new States on preparation of eligibility and full proposals, based on SWOT analysis, for seeking funds under sub-component-1.1,
  - Scrutinize eligibility and Institutional Development Proposals for sub-components-1.1 of all applicant institutions (including those short-listed and rejected by States), prepare reports on the same for consideration of the NEC, submit recommendations of NEC to the NSC for selections and communicate decisions of the NSC to the States, UTs and CFIs along with recommendations for improvement of proposals, as may be required,
  - Review funding requirements from institutions and monitor fund utilization for sub-component-1.1,
  - Develop guidelines and modules for capacity building of BoGs. And develop appropriate orientation programme and identify resource persons.

- Promote organization of separate workshops by States and select institutions for sharing the good academic and governance practices and innovations,
- Develop and oversee procedures for effective mentoring, performance audits and data audits of all Project institutions<sup>1</sup>, and
- Obtain reports from mentors and auditors, review these for satisfactory progress in implementation of the proposed activities and achievement of targets.

**2. PG Education and R&D Unit in the NPIU:** Under the guidance of the CPA, this Unit will:

**In respect of Proposals for Scaling up PG Education and R&D:**

- Scrutinize proposals of the short-listed and the rejected proposals for this sub-component as received from States/UTs for completeness and validation of State/UT recommendations, and prepare reports on the same for consideration of the NEC,
- Organize Evaluation Meetings of the NEC for in-depth review of the development proposals for this sub-component,
- Submit NEC recommendations for selection and fund allocation to the NSC, and communicate the decision of the NSC to the States/UTs and the institutions, and
- Monitor fund utilization and implementation progress for this sub-component.

**In respect of Proposals for Establishing Centers of Excellence:**

- Scrutinize proposals for this sub-sub-component as received from States/UTs for completeness and prepare reports on the same for consideration of the NEC,
- Based on the recommendations of the NEC, refer proposals for Centers of Excellence to Indian and foreign experts through post and email, follow-up on their observations/ recommendations and put these up to the NEC for consideration,
- Under guidance of the NEC, develop procedure and criteria for assessing viability of proposals for Centers of Excellence, and facilitate carrying out of viability assessment by visiting Committees, as approved by the NPD, and submit the findings to the NEC,
- Collate NEC recommendations and the Viability Assessment Reports for consideration of the NSC for final selection.

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<sup>1</sup> Project institutions are those institutions that have been selected to participate in this Project, and continue to participate.

**In respect of both Scaling-up PG Education and CoEs:**

- Identify a separate set of mentors and performance auditors for this sub-component with clear guidelines and methodology,
- Develop and oversee procedures for effective mentoring and performance audits of institutions participating in this sub-component,
- Obtain reports from mentors and auditors, review these for satisfactory progress in implementation of the proposed activities and achievement of targets, and
- Organize at least 2 regional workshops each year for the participating institutions to share and peer review their achievements and innovations, and to seek expert guidance from seniors from industry and academia, and invited foreign experts.

**3. Faculty Development Unit in the NPIU:** This Unit will be responsible for promoting faculty qualification upgradation, subject area knowledge enhancement and training in pedagogy. In this context, the Unit, under the guidance of the CPA, will:

- Identify individual experts and agencies that can help to develop guidelines and also provide in-situ training to senior faculty to build their capacity for TNA, and publish the information on NPIU website,
- Promote conduct of TNA in all Project Institutions,
- Keeping in view the recommendations made by the Working Group, identify major venues within India and abroad for qualification upgradation of faculty from Project Institutions through various modes; publish the information on the NPIU website and periodically update the information,
- Compile a training calendar for good quality opportunities in subject knowledge enhancement, publish the calendar on NPIU website and periodically update the calendar,
- In consultation with experts from leading Technical Education and training institutions, develop pedagogy training curriculum in 2 modules—Basic Pedagogy and Advanced Pedagogy—each of about one week duration. The modules should include both lectures and hands-on learning,
- Identify at least 10 highly competent pedagogy training providers for imparting in-situ training in institutions; develop clear measurable result-oriented ToRs for the pedagogy training, and also develop broad costing of training; publish the information on NPIU website,
- Arrange training to the CFIs and release payment to training providers on receipt of the required documentation,
- Periodically follow-up with SPFUs to encourage non-project institutions (including unaided institutions) to take advantage of the opportunity made available under the Project for subsidized pedagogy training,
- Monitor achievements in all 3 types of training (subject knowledge, basic pedagogy and advanced pedagogy) in both Project and non-project institutions and the expenditure made,

- Developing norms for selection of candidates for foreign study tours and training/study visits including duration and permissible expenditure, and
- Organize foreign study tours of Vice-Chancellors of Project Institutions' affiliating universities for building capacity for academic and governance reforms with funding from concerned SPFUs.

**4. Financial Management Unit in the NPIU:** Under the guidance of the CPA, this Unit will:

- Ensure full knowledge and systematic application of the World Bank's procedures and requirements for financial management.
- Guide the Finance Officers in SPFUs through advice and operating as a clearing house for issues (problems and solutions) raised by States/UTs,
- Act as a support and reference person for all project-related financial management tasks,
- Prepare annual estimates and budget for the Project,
- Ensure maintenance of Project accounts as per standard procedures,
- Prepare consolidated Project Financial Management Reports (FMRs) and ensure timely submission of FMRs to the World Bank,
- Monitor timely preparation and submission of quarterly claims for reimbursement,
- Coordinate receipt of annual audit reports from States/UTs/CFIs/other recipients and audit of NPIU,
- Prepare and submit Consolidated Audit Report to the World Bank through National Project Directorate on a timely basis,
- Ensure timely compliance of audit observations by all States/UTs/CFIs/other recipients; and coordinate timely response from all concerned on audit observations,
- Participate in reviews and monitoring of States, and
- Prepare and implement a plan for capacity building in financial management of the FM staff in SPFUs and institutions and review the capacity building requirements of FM staff at all levels on a regular basis.

**5. Procurement Management Unit in the NPIU:** Under the guidance of the CPA, this Unit will:

- Ensure full knowledge and systematic application of the World Bank's procurement guidelines and provide guidance on queries from States/UTs and institutions regarding the World Bank's procurement procedures,
- Build capacity of procurement officers in SPFUs and institutions to procure Goods and Works in accordance with the World Bank procurement guidelines by conducting the first round of training within three months of Project inception and there after repeating the workshops every six months.
- Guide SPFUs and CFIs in the preparation of good bid documents, integrating environmental concerns in bid documents for works, and in quality assurance,

- Review the procurement documents and certify technical specifications before forwarding the documents to the World Bank for prior review,
- Make aware all the concerned of the post-review procedure, documentation required for post-review and facilitate post-review, which may be conducted by the World Bank from time to time,
- Build capacity in SPFUs for carrying out procurement audits at the State level, and
- Act as a support and reference person for all Project-related procurement tasks.

**6. Monitoring and Evaluation Unit in the NPIU:** Under the guidance of the CPA, this Unit will:

- Develop, implement and maintain a Project Management Information System (MIS),
- Monitor and evaluate the internal operations of the Project,
- Guide the operations of Monitoring and Evaluation Specialists in SPFUs and institutions through providing advice and operating a clearing house for issues (problems and solutions) raised by States, UTs and institutions,
- Incorporate data on the performance of institutions into the MIS,
- Develop procedures for regular monitoring of performance of Project Institutions,
- Conduct/ commission impact evaluation of training programmes and various types of other studies, and disseminate the findings, and
- Publish on its website results of all national level selections, findings from monitoring and evaluation studies and such other information as required under Disclosure Management Framework.

**5.1.2 State Level Project Implementation Arrangements:**

The Project States/UTs<sup>2</sup> through the respective State Steering Committee (SSC) and the State Project Facilitation Unit (SPFU) will be directly responsible for management, coordination, implementation and monitoring of the Project at the State/UT level.

**5.1.2.1 State Steering Committee:**

**a. Composition:**

The State /UT Department responsible for higher Technical Education will constitute a 9-10 member State Steering Committee (SSC), composed as below:

- Principal Secretary/ Secretary responsible for higher Technical Education, as the Chairperson;
- Financial Controller of the State Department concerned with higher Technical Education in the State/UT or his/her nominee;
- Director, Department of Higher Education, MHRD or his/her nominee;

<sup>2</sup> Project States / UTs are those States and UTs that have been selected to participate in the Project, and continue to participate.

- Two industry members, nominated by major industry Associations;
- Three members having recognized expertise and interest in engineering education, nominated by the State Government;
- One nominee of the State Private Sector Advisory Group (S-PSAG)<sup>3</sup>;
- Director for Technical Education in the State (being the Head of the SPFU), as the Member-Secretary.

**b. Meetings:**

The SSC will meet quarterly. Special meetings may also be convened by the Chairperson. It will be assisted in its functioning by the SPFU. The operational costs of the SSC, including sitting fees for non-official members, will be financed by the Project through the SPFU's budget.

**c. Functions:**

The SSC will be responsible for: (a) guiding the work of the SPFU and authorizing reports to the State Government and to the National Project Directorate /NPIU; (b) short listing institutions eligible for participation in the Project; (c) assessing and recommending Institutional, SPFU and university proposals for financing under the Project; (c) overseeing operational activities within the State; (d) preparing State proposals, and forwarding these and also proposals from other entities for seeking grants under the Innovation Fund; (e) reviewing and approving foreign training and foreign study tours; and (f) take stock of the Project and facilitate Project implementation under all components and sub-components as per the proposals approved for funding by the NSC.

**State Project Facilitation Unit:**

- The Department of the State Government responsible for managing Technical Education will establish a State Project Facilitation Unit (SPFU) with adequate staff before signing of the Memorandum of Understanding between the MHRD and the State Government (refer Annex-III (a)).
- The SPFUs will be located within the department of the State Government responsible for Technical Education. The Head of SPFU, designated as the State Project Advisor (SPA) will be the Director of Technical Education or the equivalent officer responsible for Technical Education in that Department. The SPA will be assisted by a Project Coordinator who will be an academician.

**a. Role of State Project Advisor (SPA):** The SPA will perform the following functions:

- Overall supervision of the implementation of the State's part of the Project,
- Obtaining necessary clearances from higher level in the State Government,
- Coordinating with the NPIU,

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<sup>3</sup> Formation of S-PSAG is optional for a State. If the S-PSAG is constituted for a State, then only the nomination from S-PSAG will be there in the SSC.

- Coordinating implementation of the Project within the State sponsored institutions and monitoring implementation progress on a day-to-day basis,
- Preparing Project’s annual work plans, including operations and budgets,
- Furnishing information to the State government, State Steering Committee and the NPIU as required from time to time,
- Considering proposals for and subsequently procuring local technical assistance for activities undertaken at the State level,
- Mobilizing resources to meet technical assistance needs of the SPFU,
- Liaising with stakeholders (local and foreign) involved in implementing the Project,
- Facilitating the provision of services required to ensure efficient performance of the Project,
- Ensuring implementation of EAP, EMF and DMF by itself and by Project Institutions,
- Submitting quarterly progress report to the SSC,
- Convening the meetings of SSC on behalf of the Chairperson,
- Acting as the ex-officio Member- Secretary of the SSC, and
- Publish minutes of SSC meetings on SPFUs website.
- Carrying out other Project related tasks as may be reasonably requested by the SSC.

**b. Role of functional Units in SPFU :**

The SPFU will have 4 Units, namely Academic Unit, Procurement Unit, Financial Management Unit, and Monitoring & Evaluation (M&E) Unit. States with less than 5 Project Institutions may reduce the number of Units to 2, namely: (a) Academic and M&E Unit, and (b) Procurement and Financial Management Unit, merging their respective functions. Functions of each of the above units are described below:

**1. Academic Unit:** Under the guidance of the SPA, this Unit will:

- Organize training workshops for institutions as required from time to time, on preparation of eligibility and development proposals for the sub-component 1.1 : “Strengthening institutions to improve learning outcomes and employability of Graduates”, and development proposals for the sub-component 1.2 : “Scaling-up PG education and demand driven R&D&I including Establishment of Centers of Excellence” based on SWOT analysis, for seeking funds under the Project,
- Review eligibility proposals from institutions, and preparing reports on the same for consideration of the SSC,
- Forward the recommendations of SSC on eligibility of institutions to the NPIU along with all the original eligibility applications received by the SPFU,

- Review the development proposals as received from institutions till a cut-off date for their completion and funding requirements, and forwarding the same to the NPIU with due recommendations from the SSC,
- Provide guidance and arrange technical assistance to institutions for carrying out realistic and meaningful Training Needs Analysis (TNA) to help the institutions achieve their developmental goals and to also provide avenues for professional development of individual faculty members,
- Provide assistance and guidance to both project and non-project institutions in organizing training in pedagogy in their institutions,
- Provide assistance and guidance to Project Institutions in locating suitable training opportunities for subject knowledge upgradation of their faculty,
- Select training providers for pedagogy and organize training in institutions and release permissible expenditure to training providers on receipt of the required documentation (See Annex-X),
- Monitor progress in faculty and staff development for each institution and take corrective actions, as required, to ensure that institutions achieve their targets as given in their proposals,
- Initiate and promote preparation of proposals for funding under the Innovation Fund,
- Identify separate sets of mentors and performance auditors for the 2 sub-components with clear TORs and methodology,
- Carry out orientation of BoGs at the respective Institutions and disseminate good governance practices,
- Organize special purpose workshops for sharing good academic practices and innovations with other SPFUs and institutions, and
- Oversee mentoring, performance and technical audits of Project Institutions.

**2. Procurement Unit :** Under the direct guidance of the SPA, this Unit will:

- Ensure full knowledge and systematic application of the World Bank guidelines for Procurement of Works, Goods and Services by all Project Institutions,
- Guide institutions in preparation of their Procurement Plans, review these, and forward to the World Bank through the NPIU,
- Manage the procurement of works, goods and consultancies required for State level activities under the Project and manage the procurement of international consultancies,
- Conduct post-procurement audits of institutions for ensuring full compliance with the World Bank procedures,
- Ensure compliance with EMF requirements and quality guidelines (as given in the NPIUs Civil Works Manual) for all Civil Works in institutions,
- Liaise with the Procurement Officer in the NPIU, providing information on issues (problems and solutions) for the national clearing house,

- Act as a support and reference unit to institutions for all project-related procurement tasks, and
- Submit quarterly procurement progress reports to the SSC.

**3. Financial Management Unit :** Under the direct guidance of the SPA, this Unit will:

- Take appropriate actions for timely release of Project funds (both the Central and State shares) to project and non-project institutions and other entities participating in one or more Project activities as approved by the NSC,
- Manage the funds provided for State level activities (both the Central and State shares) under the Project, including monitoring Project accounts and costs. The procedures for this are described in detail in the Financial Management Manual,
- Ensure full knowledge and systematic application of the World Bank procedures and requirements for financial management,
- Liaise with the Finance Officer in the National Project Directorate and NPIU, providing information on issues (problems and solutions) for the national clearing house,
- Act as a support and reference unit for all Project-related financial management tasks,
- Ensure timely submission of Utilization Certificates as required in respect of the Central and State funds released to the institutions and other entities by the State,
- Ensure timely validation by the MHRD of any unutilized funds received in a previous financial year,
- Prepare annual estimates and budget for the Project at State level and submit to the National Project Directorate and NPIU after due approval from the SSC,
- Take appropriate actions for timely release of funds for Project activities at the State level and in institutions,
- Ensure maintenance of Project accounts as per standard procedures in the SPFU and in Project Institutions,
- Prepare quarterly Financial Management Reports (FMRs) and ensure timely submission of these reports to the NPIU,
- Timely prepare and submit quarterly claims for reimbursement to the NPIU for onward transmission to the National Project Directorate,
- Coordinate submission of Annual Audit Report from State to the NPIU and timely compliance of audit observations. If a system of internal audit exists, ensure adequate coverage, scope and timely and satisfactory response to observations by internal auditors, and
- Review and monitor financial management arrangements at Project Institutions and other entities.

**4. Monitoring and Evaluation Unit:** Under the guidance of the SPA, this Unit will:

- Facilitate MIS training of personnel from all project and non-project institutions benefiting from Project funds,
- Ensure periodical updation of the MIS at the Institutional and State levels,
- Monitor progress in implementation of various Project elements on a day to day basis,
- Assist the Monitoring and Evaluation Specialist in the NPIU,
- Implement and oversee procedures for the regular monitoring of performance of institutions participating in the Project. This will include procedures for assisting with surveys and studies,
- Undertake regular field visits to institutions and develop a simple monitoring checklist, and consolidate quarterly monitoring reports based on the monitoring checklists, and
- Propose corrective actions (if any) that need to be taken. These will be acted upon by the SPA/ State Government. The NPIU Monitoring and Evaluation Unit will be responsible for collating these monitoring reports, and preparing semi-annual monitoring reports.

**5.1.3 Institutional Level Implementation Arrangements:**

The Project at the Institutional level will be managed by two bodies (i) the Board of Governors (BoG) and (ii) an Institutional TEQIP Unit.

**5.1.3.1 Board of Governors:****a. Composition:**

- Each institution will necessarily (please see eligibility conditions) have its own BoG as per UGC Guidelines and Composition or as per the NIT Act 2007, as the case may be, either appointed by the sponsoring government or by itself through due procedure (Attached as Annex-II ).
- The BoG will, in all cases, be Headed by an eminent industrialist/ engineering education expert with adequate representation from other stakeholders.

**b. Meeting:**

The BoG will meet at least quarterly or as often as required and the minutes of BoG meetings will be published on Institution's website as promptly as possible. It will perform the following functions in the context of this Project.

**c. Functions:**

- Take all policy decisions with regard to smooth, cost effective and timely implementation of the Institutional sub-project,
- Form, supervise and guide various Committees required for Project implementation and internal Project monitoring,
- Ensure overall faculty development,
- Enable implementation of all academic and non-academic Institutional reforms,
- Ensure proper utilization of Project fund and timely submission of Financial Management Reports (FMRs) and Utilization Certificates,

- Ensure compliance with the agreed procedures for Procurement of Goods, Works and Services and Financial Management,
- Ensure compliance with other fiduciary requirements under the Project such as Equity Assurance Plan (EAP), Environment Management Framework (EMF) and Disclosure Management Framework (DMF), and
- Monitor progress in the carrying out of all the proposed Project activities, resolve bottlenecks, and enable the institution to achieve targets for all key indicators.

#### 5.1.3.2 Institutional TEQIP Unit:

Each institution will form an Institutional TEQIP Unit with appropriate representation from academic officials of the institution, faculty, senior administrative officers, technical and non-technical support staff and students. The Unit, Headed by the Head of the institution, will be responsible for implementation of the Institutional sub-project. He/she shall be assisted by a Senior Professor for coordinating the activities of the Project.

The Institutional TEQIP Unit will operate through Committees for procurement of Goods, Works and Services; financial management; implementation of faculty development activities and programmes; monitoring Project implementation, achievement of targets for all indicators as proposed and keeping MIS updated; ensuring compliance with EAP, EMF and DMF requirements; ensuring implementation of Institutional reforms; organizing efficient conduct of monitoring and performance audits, etc.

#### 5.2 Role of Private Sector:

The Project will seek to maximize collaboration between local industries and Project Institutions by providing the National Steering Committee and the State Steering Committees (through national and State level advisory groups) with timely, precise, and concrete advice and summarized feedback on academia-industry partnerships to meet the national demand for graduates and postgraduates equipped with skills and knowledge relevant to the changing market requirements.

The collaboration and coordination at the Central and State levels will enable establishment and effective functioning of academia-industry collaborations. The expected benefits, among others, will be:

- Improvement of the skills of future job candidates through inputs on curriculum—this could lower industry training costs,
- Early access to highly educated talent,
- Relevant research and technology development demanded by the market,
- Access to new ideas and early research results through such means as offering problems for solution through consultancy,
- Technical assistance through interaction with researchers,
- Access to specialized R&D equipment and laboratories,
- Professional development of employed engineers and technicians, and
- Access to intellectual property.

**5.2.1 National Private Sector Advisory Group (N-PSAG):**

- a) The National Private Sector Advisory Group (N-PSAG) will consist of 10-15 members of business leaders, human resources managers and professional engineers in high level positions from the private sector with one member each from CII, FICCI, and NASSCOM, and 7 - 12 members will be nominated from pan-Industry (sector-wise and possibly size-wise) by CII, FICCI, and NASSCOM across the Project States.
- b) The N-PSAG will nominate one representative to the NSC, in addition to the nominees from CII and FICCI in the NSC.
- c) It will be accountable to the National Steering Committee, providing it annually with overview of and advice on the Project implementation in the area of the academia-industry partnership.
- d) It will be responsible for:
  - Frequently communicating with S-PSAGs,
  - Identifying common issues and difficulties faced by the industries and institutions that are participating in the Project .
  - Providing timely advice to the NSC and other stakeholders including industries, and
  - Preparing a concise Annual Report for use of the National Steering Committee that summarizes common issues raised by the advisory groups at the State level with indicative solutions.

**5.2.2 State Private Sector Advisory Group (S-PSAG):**

- State Governments are encouraged to establish State-level Private Sector Advisory Groups. The Advisory Groups at the State level will consist of representative of the private sector conducting business activities in the respective States with relevance and knowledge of TEQIP. The number of participants (maximum of 10) in the State-level advisory group will depend on the size of the State and the range of industrial activities taking place in the State. States with less than 3 institutions, may form a cluster and establish S-PSAG at one State. As with the National Advisory Group, the State-level advisory groups will equally be represented in the State Steering Committee.
- The S-PSAG will oversee the academia-industry partnerships within its respective State and actively interact with both the institutions and the private sector to ensure effective functioning of the partnership.
- Each S-PSAG will set up a structure to identify issues and difficulties at the early stage that potentially obstruct/ restrict promotion of the partnerships and slow down implementation of the related Project activities.
- Taking into account the identified issues and difficulties, the S-PSAG will provide timely and practical advice to the SSC, the institutions and the private sector. If the issues are recognized as beyond the Advisory Groups' control, they will promptly report the issues to the N-PSAG for advice.

**5.2.3 Funding for the Advisory Groups:**

In order to support the Private Sector Advisory Groups at the National and State levels, limited but reasonable funds will be made available by the MHRD through the NPIU to support activities of the N-PSAG and through the SPFUs to support activities of S-PSAG. The funds could be used for:

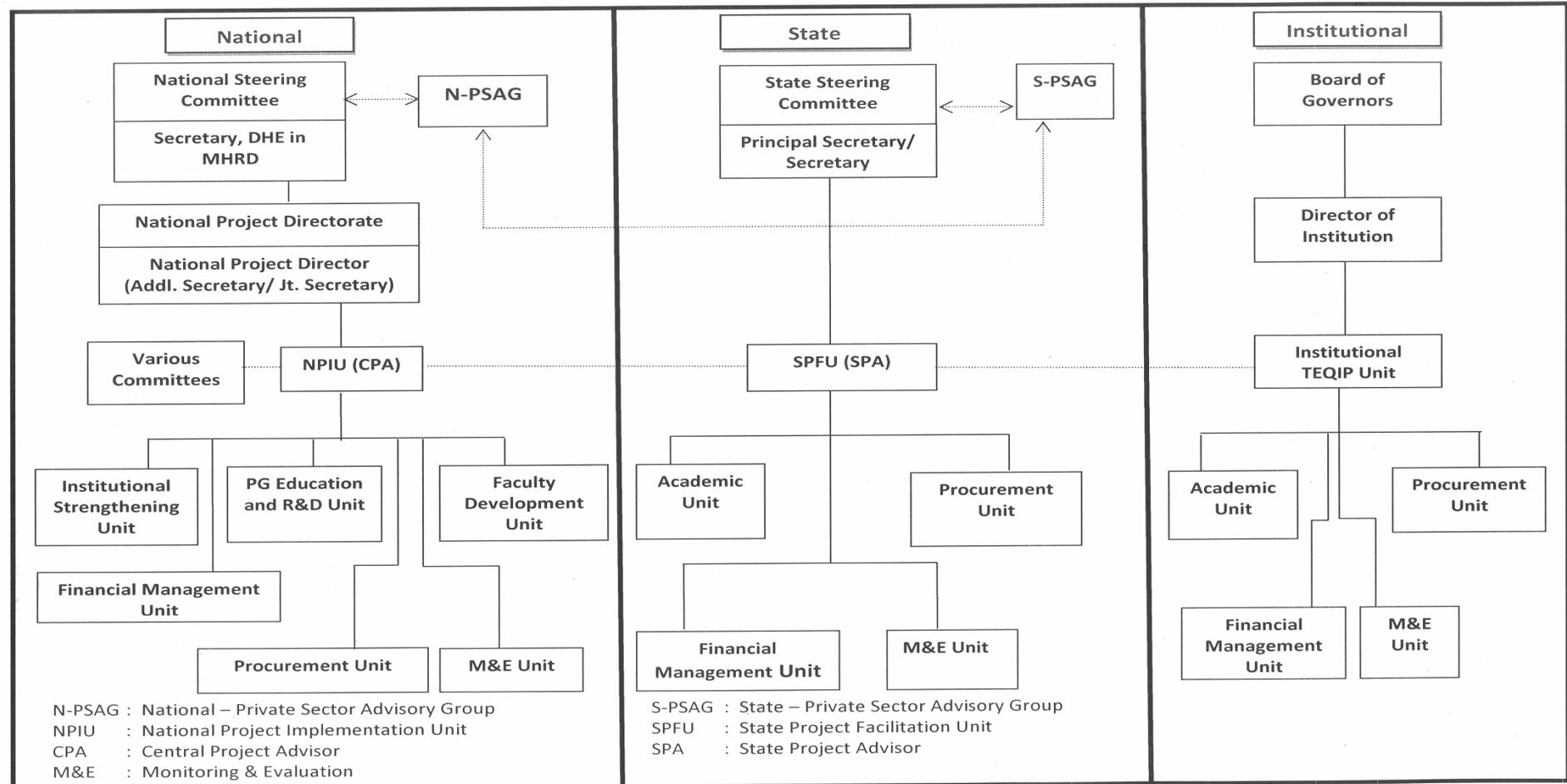
- i) Members' travel to attend the meetings held by the Advisory Groups, in accordance with the Government rules,
- ii) Recurrent costs for meetings, and
- iii) Other relevant costs will be considered by the NSC, but members' time in Advisory Groups will not be funded.

**5.3 ROLE OF THE WORLD BANK DURING PROJECT IMPLEMENTATION:**

For the effective Project implementation, the World Bank will have the frequent interactions with Central, State Governments and Institutions. The World Bank will participate in Review Missions and also visit various Institutions to guide the Project activities.

Implementation arrangement at National, State and Institution Level

Chart - I



## Section-VI

### FINANCIAL MANAGEMENT

#### 6.1 Financial Plan :

The total Project cost is expected to be Rs. 2430.00 crore. The Project cost will be borne by Government of India & the States in the manner of matching shares, in the ratio of 90:10 for the Special Category States and 75:25 for the remaining States. The Central share will be Rs. 1895.50 crore, the States share will be Rs. 518.50 crore and the share of Private unaided institutions will be Rs. 16.00 crore. The reimbursement from the World Bank Credit on expenditure incurred for the Project will be limited to Rs.1395.50 crore.

- Fund will be made available to competitively selected around 200 institutions from the selected States under two sub-components 1.1 (Strengthening Institutions to Improve Learning Outcomes and Employability of Graduates) and 1.2 (Scaling-up Post graduate Education and Demand Driven Research Development and Innovation) and also to around 30 institutions selected under sub-sub-component 1.2.1 (Establishing Centers of Excellence).
- In addition to the above, under the sub-component 1.3, funds are available for pedagogical training in all the Project Institutions and also to the desirous non-Project Institutions in the Project States.
- Grants from an Innovation Fund will be made available for improving System Management at the National and State level.

#### 6.2 Fund Allocation :

Fund allocation to the Central and States Project management entities and Project Institutions component wise with percentage share, and indicative funding by components and activities are indicated in the following tables.

Table-1

## COMPONENTWISE PERCENTAGE SHARE WITH RESPECT TO CENTER, STATE &amp; INSTITUTIONS

S. No.	Share of Government / Institution	Type of Institution							Innovation Fund	NPIU / MHRD	SPFU	Un-allocated amount
		CFI for all components	Govt. Funded & Aided for all components	Private unaided				Non Project Institution (Govt. funded, Govt. aided & Private unaided)				
				Under sub-component 1.1	Under sub-component 1.2	Under sub-sub-component 1.2.1	Under sub-component 1.3 (cost share is only for the training cost)	Under sub-component 1.3 (cost share is only for the training cost)				
1	Share of Central Government	100	75*	60	75*	75*	75*	75*	75*	100	75*	100
2	Share of State Government	---	25**	20	25**	25**	25**	25**	25**	---	25**	---
3	Share of Institutions	---	---	20	---	---	---	---	---	---	---	---
<b>TOTAL</b>		<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

**Notes :**

- For the project private unaided institutions and the non-project institutions (Government funded, Government aided and private unaided) desirous of taking benefit of pedagogy training under sub-component 1.3, the Central and State share is only for the "training cost" and the Institutions need to bear the expenditure on boarding, loading and travel for the training providers team.
  - The Innovation Fund will be made available for improving System Management at the National and State level to those (the SPFUs, affiliating universities, group of Project Institutions etc.) voluntarily desirous to participate in the activities.
- \* The share of Central Government will be 90% for the special category States and 75% for rest of the States and UTs.
- \*\* The share of State Government will be 10% for the special category States and 25% for rest of the States and UTs.

Table-2

**APPROXIMATE COMPONENTWISE DISTRIBUTION OF COST WITH RESPECT TO CENTRAL AND STATE PROJECT MANAGEMENT ENTITIES AND PROJECT INSTITUTIONS**

(Rs .in crore)

S. No.	Nature of Fund	Costing Parameters	Cost Share*			Total Cost
			Central Govt.	State Govt.	Private unaided Institution	
1	<b>a. Competitive Fund</b>	Government Funded / Government Aided 120 Institutions selected under sub-component 1.1	900	300	---	1200
2		20 Private unaided Institutions selected under sub-component 1.1	48	16	16	80
3		60 Project Institutions selected under sub-component 1.2				
		(I) 20 CFIs	250	---	---	250
		(II) 40 States Institutions	375	125	---	500
4		Establishment of 30 Centers of Excellence under sub-sub-component 1.2.1	112.5**	37.5	---	150
5	<b>b. Fund for Pedagogical trainings ***</b>	Pedagogical trainings under sub component 1.3	30	10	---	40
		<b>Sub-total (a+b)</b>	<b>1715.5</b>	<b>488.5</b>	<b>16</b>	<b>2220</b>
6	<b>c. Innovation Fund</b>	Capacity Building to Strengthen Management	45	15	---	60
		<b>Sub-total (c)</b>	<b>45</b>	<b>15</b>	<b>---</b>	<b>60</b>
7	<b>d. Systems Support Fund</b>	NPIU / MHRD (project management through MIS, PMSS including Monitoring & Evaluation and Incremental Operating Cost)	40	---	---	40
8		SPFU	45	15	---	60
9		Un-allocated Amount	50	---	---	50
		<b>Sub-total (d)</b>	<b>135</b>	<b>15</b>	<b>0</b>	<b>150</b>
<b>GRAND TOTAL (a+b+c+d)</b>			<b>1895.50</b>	<b>518.50</b>	<b>16</b>	<b>2430</b>

\* The cost share between Central Government and State Government is shown on the ratio of 75:25.

\*\* The cost share by Centre will increase (and State share will decrease) if any Centers of Excellence are established at CFIs.

\*\*\* This fund will be allocated to SPFUs and NPIU for disbursement to training providers.

**Table-3**  
**INDICATIVE FUNDING BY COMPONENTS**

(Rs. in crore)

S.No	Costing Parameters	No. of Institutions	Cost per Institution	Total Cost
<b>Component 1: Improving quality of Education in selected Institutions</b>				
1	For 140 selected Institutions under Sub-Component 1.1			
(i)	Government Funded / Government Aided Institutions	120	10	1200
(ii)	Private unaided Institutions	20	4	80
2	For 60 selected institutions under sub-component 1.2	60	12.5	750
3	Establishment of Centers of Excellence (under sub-sub-component 1.2.1)	30	5	150
4	Pedagogical Training (under sub-component 1.3)	200 and above	---	40
	<b>Sub-total</b>			<b>2220</b>
<b>Component 2: Improving System Management</b>				
1	(Innovation Fund ) Capacity Building to Strengthen Management	---	---	<b>60</b>
2	NPIU / MHRD (project management through MIS, PMSS including Monitoring & Evaluation and Incremental Operating Cost)	---	---	<b>40</b>
3	SPFU	20	3	<b>60</b>
4	Un-allocated amount	---	---	<b>50</b>
	<b>Sub-total</b>			<b>210</b>
	<b>Grand Total</b>			<b>2430</b>

**Table-4**

**INDICATIVE FUNDING FOR KEY ACTIVITIES PER PROJECT INSTITUTION SELECTED UNDER SUB-COMPONENT 1.1: (STRENGTHENING INSTITUTIONS TO IMPROVE LEARNING OUTCOMES AND EMPLOYABILITY OF GRADUATES)**

S. No.	Component	Cost (Rs. in crore)	Percentage (%)
1	Improvements in teaching, training and learning facilities	4.50	45
2	Modernization and Strengthening of Libraries	0.50	5
3	Starting new PG Programmes, assistanceships and enhancement of research and consultancy activities	1.20	12
4	Faculty and Staff Development for improved competence	1.00	10
5	Enhanced interaction with industry	0.40	4
6	Institutional management capacity enhancement	0.30	3
7	Implementation of Institutional reforms	0.20	2
8	Academic support for weak students	0.40	4
9	Refurbishment (Minor Civil Works)	0.50	5
10	Incremental Operating Cost <sup>1</sup>	1.00	10
<b>TOTAL</b>		<b>10.00</b>	<b>100</b>

<sup>1</sup> The Incremental Operating Cost means the costs of operation and maintenance of equipment, office rental and expenses, hiring of vehicles, consultancy services salaries and allowances of additional staff and travel costs incurred for the purposes of carrying out the Project.

**Notes :**

- The funding for key activities as suggested above are purely indicative. However, expenditure on goods (equipment, furniture, learning resources etc) by an institution shall normally not exceed 45% of its approved project allocation.
- Expenditure on Civil Works in a State shall not exceed 5% of the cumulative allocation for all the institutions selected under sub-component 1.1 in the State.
- Expenditure on Incremental Operating Cost in a State shall not exceed 10% of the cumulative allocation for all the institutions selected under sub-component 1.1 in the State.
- Salary expenditure of faculty and staff appointed on contract against the existing vacancies can not be charged to the Project. However, the salary expenditure of contractual faculty and staff appointed against new posts created under the Project can be charged to the Project.

**Table-5****INDICATIVE FUNDING FOR KEY ACTIVITIES PER PROJECT INSTITUTION SELECTED UNDER SUB-COMPONENT 1.2 (SCALING-UP POST GRADUATE EDUCATION AND DEMAND-DRIVEN R&D&I) :**

S. No.	Component	Cost (Rs. in crore)	Percentage (%)
1	Significantly increasing enrolment in Post Graduate and Doctoral Programmes in engineering disciplines providing assistanceships and starting new PG Programmes	2.500	20*
2	Faculty and Staff development for improved competence	1.250	10
3	Enhancement of Research and Development activities, Modernization and Strengthening of laboratories / establishment of new laboratories	5.625	45
4	Modernization and Strengthening of Libraries	0.625	5
5	Enhanced interaction with industry	0.250	2
6	Institutional management capacity enhancement	0.375	3
7	Academic support for weak students	0.250	2
8	Refurbishment (Minor Civil Works)	0.375	3
9	Incremental Operating Cost <sup>2</sup>	1.250	10
<b>TOTAL</b>		<b>12.50</b>	<b>100</b>

\* Institutions should utilize 10-15% of the total Institutional Project outlay for giving assistanceships to Masters and Doctoral students.

<sup>2</sup> The Incremental Operating Cost means the costs of operation and maintenance of equipment, office rental and expenses, hiring of vehicles, consultancy services salaries and allowances of additional staff and travel costs incurred for the purposes of carrying out the Project.

**Notes :**

- The funding for key activities as suggested above are purely indicative. However, the institutions participating in this sub-component would focus on enhancing the research facilities, modernization and strengthening of laboratories for M.Tech, PhD and faculty research etc. and hence expenditure on goods (equipment, furniture, learning resources etc) could be higher than 45%. However, the Institution should ensure the implementation of all the other indicated activities.
- Expenditure on Civil Works in a State for CoEs shall not exceed 3% of the cumulative allocation for all the institutions selected under sub-component 1.2 in the State.
- Expenditure on Incremental Operating Cost in a State shall not exceed 10% of the cumulative allocation for all the institutions selected under sub-component 1.2 in the State.
- Salary expenditure of faculty and staff appointed on contract against the existing vacancies can not be met from the Project. However, the salary expenditure of contract faculty and staff appointed against new posts created under the Project can be met from the Incremental Operating Cost.

**6.3 Strategy:**

- It is essential to ensure that the Project grant received by an institution is used only for the purpose for which it is given, with due regard to economy, efficiency and sustainable achievement of the Project's objectives.
- For regular monitoring of actual financial position, daily accounting of books of accounts is required. The Books of Account for the Project are to be maintained using double-entry bookkeeping principles. Also, standard books of account (Cash and Bank books, Journals, Ledgers etc) are to be maintained at the SPFU and institutions.
- The disbursement of funds to the Project Institutions will be based on the quarterly Financial Management Report (FMR), which includes comparison of budgeted, and actual expenditure and analysis of major variances.
- Release of funds to States/UTs and CFIs by the Centre and to institutions and other entities will be accounted for as advance in the Books of Accounts and treated as expenditure only upon submission of expenditure information through FMR.
- Release of funds to faculty, staff and suppliers will be accounted for as advance in the Books of Accounts and treated as expenditure only upon submission of expenditure information through FMR.

**6.4 Fund Flow :**

The fund flow pattern for the Project will be as follows:

- At the State level the Department responsible for Technical Education will annually prepare a budget for entire 100% expenditure for all the State-sponsored Institutions, pedagogical training, Projects under Innovation Fund and the SPFU and obtain the necessary approval of the State Legislature. The budget will be provided under the Head "Centrally Sponsored Scheme" in the State budget.
- Each CFI will annually prepare a budget for entire expenditure in the Project.

- The provision of expenditure by CFIs and States will be forwarded to the MHRD and accordingly the advances will be provided by it to participating CFIs and States by budget approval in the Parliament.
- MHRD will straight way release the funds to CFIs based on the Financial Monitoring Reports (FMRs).
- MHRD will release the Central Government share to States through Gol channels and funds shall be received in the respective State Treasury.
- State Finance Department will make the allocations based on the approved budget estimate of the Department responsible for Technical Education in the State.
- The Department responsible for the Technical Education in the State will accord “**administrative sanction**” for incurring the expenditure for the allocated amount.
- The treasury will give the “**budget authorization**”.
- The Director of Technical Education / Commissioner of Technical Education / or equivalent, will submit the bill to the treasury (pay and accounts office) after (i) the administrative sanction and (ii) the budget authorization.
- The amount then will be credited by the treasury into the **Personnel Deposit Account (PDA)/ Personal Ledger Account (PLA)** opened in favour of The Director of Technical Education / Commissioner of Technical Education / or equivalent, in any Nationalized Bank for further operation of funds.
- SPFU will receive the funds through cheque in a commercial bank account opened for the Project from the Director of Technical Education / Commissioner of Technical Education / or equivalent.
- The Project Institutions will receive the funds from the SPFU through cheque in a commercial bank account opened for the Project.
- The Project Institutions will submit “Financial Monitoring Report” (FMR) quarterly to SPFU. SPFU will consolidate the FMR of all its Project Institutions and will submit the consolidated FMR to the NPIU. FMR will provide expenditure information for the previous quarter and a forecast of expenditure to be made in the next six months.
- CFIs will send FMR to the NPIU.
- NPIU will submit consolidated FMR of all States and CFIs and also of NPIU to CAAA and the World Bank.
- The expenditure reported in FMR will be finally confirmed subject to its certification in the Annual Audit Reports for each State/CFIs and NPIU.
- Timely submission of FMR by States/CFIs is mandatory for further disbursement of the grant by MHRD which is 45 days at the close of each quarter.
- The World Bank will make quarterly disbursements on the basis of FMR to Gol. Funds will be disbursed in a special account with the Reserve Bank of India, Central Accounts Section, Nagpur, operated by the Department of Economic Affairs (DEA) of the Government of India. The disbursement will be determined as the Forecast expenditure less Funds available. Funds available are defined as opening balances less reported expenditure.

**6.5 Auditing:**

- The C&AG empanelled Chartered Accountant will audit accounts up to 31<sup>st</sup> March of all States. The NPIU selected Chartered Accountants will audit accounts up to 31<sup>st</sup> March of all CFIs. The Audit report will cover Project Financial Statements, including a Statement of Receipt and Expenditure and a Balance Sheet, which is due by September 30<sup>th</sup> of each year.
- Audits will be carried out in accordance with ToRs which are documented in the Financial Management Manual (FMM) and are acceptable to the World Bank. The MHRD (through the NPIU) will provide the World Bank with a Consolidated Report on Audit of the Project within six months of close of the Financial Year i.e. by September 30<sup>th</sup>. Based on the key observations, the World Bank may request GoI to provide copies of audit reports of specific States and CFIs.
- Disbursement would be subject to receipt of Consolidated Report on Audit, which is due by September 30<sup>th</sup> of each year. As per the World Bank Policies, if this report is not received by end January of the following year, further disbursements will be suspended till receipt of the report.

**6.6 Financial Management Manual:**

The “Financial Management Manual” (FMM) developed for the Project provides the essential information, to enable the SPFUs and Project Institutions to carry out effectively the financial operations in the Project. It is a guide to the implementation agencies for understanding the detailed financial management of the Project. For details refer to Appendix – I.

## **Section – VII**

### **PERMISSIBLE AND NON-PERMISSIBLE EXPENDITURE**

#### **INTRODUCTION :**

Permissible and non-permissible expenditure under the Project for institutions, SPFUs and NPIU are given in the following tables to facilitate planning of fund requirement and to avoid non reimbursable expenditure in the Project.

**Table-1**  
**Permissible<sup>1</sup> and Non-Permissible Expenditure**  
**for Government Funded and Aided Institutions Participating in**  
**Sub-Component 1.1 : Strengthening of Institutions to Improve Learning Outcomes and**  
**Employability of Graduates**

Activity/Category of Expenditure	Government Funded and Aided Institutions <sup>2</sup>	
	Permitted	Not Permitted
1. Improvements in teaching, training and learning facilities	Civil Works <sup>3</sup> <u>up to about 5%<sup>4</sup> of project allocation for the institution for:</u> <ul style="list-style-type: none"> <li>• Refurbishment, repair works, extension of existing academic buildings such as classrooms, laboratories, workshops, computer center and library</li> <li>• reducing environment degradation and complying with EMF (see Appendix-III).</li> </ul>	<ul style="list-style-type: none"> <li>• Civil Works undertaken for betterment of hostels, staff quarters and non-academic structures</li> </ul>
	New equipment and furniture <sup>5</sup> <u>up to about 50% of project allocation for the institution for:</u> <ul style="list-style-type: none"> <li>• modernizing and strengthening of existing UG and PG laboratories &amp; workshops, computer centre, library and support facilities</li> <li>• Modernization of laboratories in supporting departments</li> <li>• modernizing classrooms</li> <li>• establishing new UG and PG laboratories, if any required for the existing programmes</li> <li>• Faculty research and Institutional consultancy work</li> <li>• Physical education</li> <li>• Campus-wide networking of academic and administrative buildings, hostels and faculty residences, and enhancing internet facilities</li> </ul>	<ul style="list-style-type: none"> <li>• Equipment and furniture for: (a) starting new UG programmes, and (b) improving hostel facilities other than electronic networking</li> <li>• Purchase of Vehicles</li> </ul>
2. Updating of Learning Resources	<ul style="list-style-type: none"> <li>• Procurement of print and digitized books, e-journals and course-specific software</li> <li>• Expenditure for digitization of library books</li> <li>• Establishment of CD bank</li> <li>• Membership of INDEST-AICTE etc.</li> </ul>	

<sup>1</sup> Expenditure is permissible only for the AICTE approved UG and PG teaching programmes, provided that Goods, Civil Works and Consultancy Services (including pedagogical training) are procured in accordance with the procurement methods and procedures given in the Procurement Manual [see Appendix-II in the Project Implementation Plan (PIP) and are not declared ineligible expenditure by the financial auditors.

<sup>2</sup> The term aided institution includes institutions established and operated under Public-Private-Partnership mode.

<sup>3</sup> Expenditure for any Civil Work activity will not be admissible if undertaken with co-financing from any other source.

<sup>4</sup> Institutions may marginally exceed to 5% of their allocation provided this is allowed by the State/MHRD within the aggregated limit of 5% of their total allocation.

<sup>5</sup> Expenditure for procurement of any equipment and furniture will not be admissible if procured with co-financing from any other source.

3. Starting new PG programmes and increasing enrolment in PG programmes	<ul style="list-style-type: none"> <li>Equipment for establishing laboratories for new PG programmes in engineering disciplines provided that admissions to the new programmes are made latest by 2011</li> <li>Teaching Assistanceships and Research Assistanceships<sup>6</sup> for non-GATE qualified Master's and Doctoral students in engineering disciplines</li> <li>Foreign fellowships not exceeding 3 months duration for Doctoral candidates in engineering disciplines subject to BoG approval on case to case basis</li> </ul>	<ul style="list-style-type: none"> <li>Scholarships for GATE qualified students for Masters and Doctoral programmes are to be secured from Central and State agencies</li> </ul>
4. Enhancing faculty research and consultancy	<ul style="list-style-type: none"> <li>Expenditure for securing sponsored projects and consultancy assignments</li> <li>Expenditure for publication of research papers in / peer reviewed journals</li> <li>Expenditure for commercialization of research products</li> <li>Expenditure for patenting of research products</li> </ul>	<ul style="list-style-type: none"> <li>Fiscal incentives for increased participation in research, sponsored projects and consultancy work (<i>the incentives can, however, be given from Institutional resources including IRG</i>)</li> <li>All expenditure including travel and meetings associated with implementation of sponsored projects and consultancy assignments</li> </ul>
5. Faculty <b>Qualification Upgradation</b> as planned through TNA	<ul style="list-style-type: none"> <li>Fees charged for course work and use of research facilities; and consumables by the institution (other than the parent institution) where faculty is enrolled for qualification upgradation either through full-time or part-time or by sandwich arrangement</li> <li>Expenses towards thesis writing and publication of thesis-based research papers</li> <li>Consumables if faculty is registered for qualification upgradation on full-time or part-time basis within the parent institution</li> </ul>	<ul style="list-style-type: none"> <li>Salary, living expenses and travel expenses of faculty registered for qualification upgradation (on full or part time or by sandwich arrangement) either within the parent institution or through deputation to another institution</li> </ul>
6. In-house <b>Basic Pedagogical Training</b> of Faculty from engineering disciplines and supporting departments	<ul style="list-style-type: none"> <li>Full fee (training cost + overheads towards travel, boarding, lodging, travel, training materials, etc.) charged by the Training Provider selected by the SPFU</li> </ul>	<ul style="list-style-type: none"> <li>Any payment to the faculty for attending the training programme</li> </ul>
7. In-house <b>Advanced Pedagogical Training</b> of Faculty from engineering disciplines and supporting departments	<ul style="list-style-type: none"> <li>Full fee (training cost + overheads towards travel, boarding, lodging, travel, training materials, etc.) charged by the Training Provider selected by the SPFU</li> </ul>	<ul style="list-style-type: none"> <li>Any payment to the faculty for attending the training programme</li> </ul>

<sup>6</sup> The amounts of Teaching and Research Assistanceships will be governed by the norms as prescribed by the UGC/AICTE or the State Governments.

<p>8. <b>Subject knowledge and research competence</b> upgradation of Faculty from engineering disciplines and supporting departments as planned through TNA</p>	<ul style="list-style-type: none"> <li>• Course fee; travel expenses, boarding and lodging, and sundry expenses/allowances as per applicable norms and rules when faculty is deputed out-station to another institution (within India or abroad) for the duration of the course, travel time and the time permitted by the BoG for visits to institutions/ organizations of interest and relevance to the faculty in the vicinity of the location of training</li> <li>• Course fee and local travel expenses as per applicable norms and rules when faculty attends a course in-station but at an institution other than the parent institution</li> </ul>	<ul style="list-style-type: none"> <li>• Any other payment to the faculty for attending the course</li> </ul>
<p>9. Participation by faculty in seminars, conferences, workshops, etc.</p>	<ul style="list-style-type: none"> <li>• Registration fee; travel expenses; boarding, lodging, and sundry expenses/allowances as per applicable norms and rules when faculty is deputed outstation to another institution (within India or abroad) for the duration of the seminar, conference or workshop, travel time and the time permitted by the BoG for visits to institutions/organizations of interest and relevance to the faculty in the vicinity of the location of seminar, workshop or conference</li> <li>• Registration fee; and local travel expenses as per applicable norms and rules when participation is within-station but at an institution other than the employer institution</li> </ul>	<p>Any other payment to the faculty for attending seminars, workshops, conferences, etc. if organized within the parent institution or at another institution but within-station</p>
<p>10. Training of senior non-teaching staff, administrative and finance officers, etc. (all not below the rank of a lecturer)</p>	<ul style="list-style-type: none"> <li>• Course fee; travel expenses; boarding, lodging, and sundry expenses/allowances as per applicable norms and rules when the staff is deputed outstation to another institution within India and travel time</li> <li>• Course fee and local travel expenses as per applicable norms and rules when training is attended in-station but at an institution/ organization other than the parent institution</li> </ul>	<ul style="list-style-type: none"> <li>• Any other payment to the staff for attending the training programme</li> </ul>
<p>11. Training of technical support staff</p>	<ul style="list-style-type: none"> <li>• Course fee; travel expenses; boarding, lodging, and sundry expenses/allowances as per applicable norms and rules when the technical support staff is deputed outstation to another institution/ organization within India and travel time</li> </ul>	<ul style="list-style-type: none"> <li>• Any other payment to the staff for attending the training programme</li> </ul>

	<ul style="list-style-type: none"> <li>Course fee and local travel expenses as per applicable norms and rules when training is attended in-station but at an institution other than the parent institution</li> </ul>	
12. Training of administrative and general support staff <sup>7</sup> in functional areas	<ul style="list-style-type: none"> <li>Course fee; travel expenses; boarding, lodging, and sundry expenses/allowances as per applicable norms and rules when the technical support staff is deputed outstation to another institution/organization within India and travel time</li> <li>Course fee and local travel expenses as per applicable norms and rules when training is attended in-station but at an institution other than the parent institution</li> </ul>	<ul style="list-style-type: none"> <li>Any other payment to the staff for attending the training programme</li> </ul>
13. Industry-Institute Interaction	<ul style="list-style-type: none"> <li>Travel cost, hospitality and honorarium paid to industry personnel for participation in curriculum development / revision / restructure, student assessment and Institutional bodies, and for delivering expert lectures</li> <li>Expenditure for increasing I-I through PSAG</li> <li>Expenditure towards inviting industries (excluding travel cost and lodging boarding) for campus interviews and hospitality during campus interviews</li> <li>Arranging tutoring by industry experts to prepare students for on- and off-campus job interviews</li> </ul>	<ul style="list-style-type: none"> <li>Honorarium to faculty member incharge of I-I-I-activity (It can be paid from the Institutions IRG)</li> </ul>
14. Reforms	<p>a) <i>Curricular Reforms:</i></p> <ul style="list-style-type: none"> <li>travel cost, hospitality and honorarium paid to industry personnel for participation in curriculum development/ revision/ restructure and curricular reforms;</li> <li>sundry expenditure on holding meetings of the concerned committees.</li> </ul> <p>b) <i>Incentives to Faculty for Continuing Education Programmes, Consultancy and R&amp;D:</i></p> <ul style="list-style-type: none"> <li>honorarium for organizing and administering CE programmes</li> <li>honorarium for delivering lectures and training in CE programmes as per norms decided by the BoG</li> </ul>	<ul style="list-style-type: none"> <li>Fiscal incentives for increased participation in research, sponsored projects and consultancy work (<i>the incentives can however be given from Institutional resources including IRG</i>)</li> </ul>

<sup>7</sup> Such training should mostly be organized within the Project Institution

	<p>c) <i>Accreditation</i>: Accreditation fee to NBA/NAAC.</p> <p>d) <i>Academic Support for Weak Students</i>:</p> <ul style="list-style-type: none"> <li>• Honorarium to faculty and staff for taking bridge courses, remedial teaching classes and skill development training</li> <li>• Honorarium to faculty, staff, honorarium &amp; TA, DA to outside experts for specialized training in soft components including communication-presentation skills</li> </ul>	<ul style="list-style-type: none"> <li>• Any payment to accreditation committee members in cash or kind.</li> </ul>
15. Institutional Management Capacity Enhancement	<p>a) <u>Training of Institution Officials and Senior Faculty</u>:</p> <ul style="list-style-type: none"> <li>• Course fee; travel expenses, boarding and lodging, and sundry expenses/allowances as per applicable norms and rules when deputed out-station to another institution (within India or abroad) for the duration of the course, travel time and the time permitted by the BoG for visits to institutions/ organizations of interest and relevance to the faculty in the vicinity of the location of training</li> <li>• Trainer's fee and overheads; and sundry expenditure if training programmes organized within the parent institution.</li> </ul> <p>b) <u>Orientation of BoG Members</u>: Travel costs, boarding and lodging expenditure and sitting fee to Board members; sundry expenses on organizing orientation programme.</p> <p>c) <u>Study Tours</u>: Travel expenses, boarding and lodging, and sundry expenses/allowances as per applicable norms and rules when deputed for study tour within India or abroad for the duration of the tour and travel time.</p>	Any other payment to the officials and senior faculty for attending the course
16. Organizing subject area training programmes, workshops, seminars and conferences	<ul style="list-style-type: none"> <li>• Hospitality to participants</li> <li>• Venue and logistic arrangements</li> <li>• Replication of printed training materials</li> <li>• Publication of proceedings</li> <li>• Travel, boarding &amp; lodging for invited experts</li> </ul>	<ul style="list-style-type: none"> <li>• TA&amp;DA to participants</li> </ul>

17. Technical Assistance	Consultancy services engaged for technical assistance related to: <ul style="list-style-type: none"> <li>• procurement of Civil Works and equipment,</li> <li>• pedagogical training</li> <li>• mentoring</li> <li>• hand-holding for project implementation as required by weak institutions</li> <li>• external financial auditing</li> </ul>	
18. Salaries	<ul style="list-style-type: none"> <li>• Salaries of additional full-time regular and contract faculty including adjunct faculty and staff appointed against posts created under the Project</li> </ul>	<ul style="list-style-type: none"> <li>• Salaries to contract faculty and staff appointed against existing vacancies</li> <li>• Salaries of Adjunct faculty appointed against existing vacancies (<i>These are to be borne by the institution</i>)</li> </ul>
19. Maintenance of furniture and equipment including computers and other assets acquired under the Project	<ul style="list-style-type: none"> <li>• Maintenance of furniture</li> <li>• In-house maintenance of existing and new equipment</li> <li>• Maintenance of equipment including computers and related devices through Annual Maintenance Contracts</li> </ul>	<ul style="list-style-type: none"> <li>• Maintenance of buildings (<i>this should be carried out through institution's own budget</i>)</li> </ul>
20. Incremental Operating Cost	Expenditure on: <ul style="list-style-type: none"> <li>• BoG and other committee meetings</li> <li>• Obtaining Autonomous Institution status from the affiliating university and UGC</li> <li>• TA &amp; DA for faculty and staff attending workshops and meetings organized by the NPIU and SPFUs</li> <li>• TA &amp; DA for faculty and staff attending training in the World Bank procedures as arranged by the NPIU and SPFUs</li> <li>• Contract fee for outsourced services</li> <li>• Student training materials and other consumables</li> <li>• Occasional hiring of vehicles for Project related work only</li> <li>• Office operation including stationary, postage, electronic communication, telephone, electricity, water, etc.</li> </ul>	

Table-2

**Permissible<sup>1</sup> and Non-Permissible Expenditure for Project Private Unaided Institutions Participating in Sub-Component 1.1 : Strengthening of Institutions to Improve Learning Outcomes and Employability of Graduates**

Activity/Category of Expenditure	Private Unaided Institutions	
	Permitted -----	Not Permitted Any type of Civil Works
1. Improvements in teaching, training and learning facilities	New equipment for: <ul style="list-style-type: none"> <li>• establishing PG laboratories for new PG programmes</li> <li>• faculty research and Institutional consultancy work</li> <li>• campus-wide networking of academic and administrative buildings, hostels and faculty residences, and enhancing internet facilities</li> </ul>	Equipment and furniture for: <ul style="list-style-type: none"> <li>• starting new UG programmes,</li> <li>• modernizing and strengthening of existing UG and PG laboratories &amp; workshops, computer centre, library and support facilities</li> <li>• modernization of laboratories in supporting departments</li> <li>• modernizing classrooms</li> <li>• establishing new UG laboratories</li> <li>• physical education</li> <li>• improving hostel facilities other than electronic networking</li> <li>• purchase of Vehicles</li> </ul>
2. Updating of Learning Resources	<ul style="list-style-type: none"> <li>• Procurement of print and digitized books, e-journals and course-specific software</li> <li>• Expenditure for digitization of library books</li> <li>• Establishment of CD bank</li> <li>• Membership of INDEST-AICTE etc.</li> </ul>	
3. Starting new PG programmes and increasing enrolment in PG programmes	<ul style="list-style-type: none"> <li>• Equipment for establishing laboratories for new PG programmes in engineering disciplines provided that admissions to the new programmes are made latest by 2011</li> <li>• Teaching Assistanceships and Research Assistanceships<sup>2</sup> for non-GATE qualified Master's and Doctoral students in engineering disciplines</li> </ul> Foreign fellowships not exceeding 3 months duration for Doctoral candidates in engineering disciplines subject to BoG approval on case to case basis	<ul style="list-style-type: none"> <li>• Scholarships for GATE qualified students for Masters and Doctoral programmes are to be secured from Central and State agencies</li> </ul>

<sup>1</sup> Expenditure is permissible only for the AICTE approved PG teaching programmes, provided that Goods, and Consultancy Services (including pedagogical training) are procured in accordance with the procurement methods and procedures given in the Procurement Manual [see Appendix-II in the Project Implementation Plan (PIP) and are not declared ineligible expenditure by the external financial auditors.

<sup>2</sup> The amount of Teaching and Research Assistanceships will be governed by the norms as prescribed by the UGC/AICTE or the State Governments or by the respective Board of Governors.

4. Enhancing faculty research and consultancy	<ul style="list-style-type: none"> <li>• Expenditure for securing sponsored projects and consultancy assignments</li> <li>• Expenditure for publication of research papers in peer reviewed journals</li> <li>• Expenditure for commercialization of research products</li> <li>• Expenditure for patenting of research products</li> </ul>	<ul style="list-style-type: none"> <li>• Fiscal incentives for increased participation in research, sponsored projects and consultancy work (<i>the incentives can, however, be given from Institutional resources including IRG</i>)</li> <li>• All expenditure including travel and meetings associated with implementation of sponsored projects and consultancy assignments</li> </ul>
5. Faculty <b>Qualification Upgradation</b> as planned through TNA as per agreed funding pattern	<ul style="list-style-type: none"> <li>• Fees charged for course work and use of research facilities; and consumables by the institution (other than the parent institution) where faculty is enrolled for qualification upgradation either through full-time or part-time or by sandwich arrangement</li> <li>• Expenses towards thesis writing and publication of thesis-based research papers</li> <li>• Consumables if faculty is registered for qualification upgradation on full-time or part-time basis within the parent institution</li> </ul>	<ul style="list-style-type: none"> <li>• Salary, living expenses and travel expenses of faculty registered for qualification upgradation (on full or part time or by sandwich arrangement) either within the parent institution or through deputation to another institution</li> </ul>
6. In-house <b>Basic Pedagogical Training</b> of Faculty from engineering disciplines and supporting departments as per agreed funding pattern	<ul style="list-style-type: none"> <li>• Training fee charged by the Training Provider selected by the SPFU</li> </ul>	<ul style="list-style-type: none"> <li>• Expenditure towards travel, boarding, lodging, training materials, etc. for training provider.</li> <li>• Rental for training venue, if any.</li> <li>• Any payment to the faculty for attending the training programme</li> </ul>
7. <b>Subject knowledge and research competence</b> upgradation of Faculty from engineering disciplines and supporting departments as planned through TNA	<ul style="list-style-type: none"> <li>• Course fee; travel expenses, boarding and lodging, and sundry expenses/allowances as per applicable norms and rules when faculty is deputed out-station to another institution (within India or abroad) for the duration of the course, travel time and the time permitted by the BoG for visits to institutions/ organizations of interest and relevance to the faculty in the vicinity of the location of training</li> <li>• Course fee and local travel expenses as per applicable norms and rules when faculty attends a course in-station but at an institution other than the parent institution</li> </ul>	<ul style="list-style-type: none"> <li>• Any other payment to the faculty for attending the course</li> </ul>

<p>8. Participation by faculty in seminars, conferences, workshops, etc.</p>	<ul style="list-style-type: none"> <li>• Registration fee; travel expenses; boarding, lodging, and sundry expenses/allowances as per applicable norms and rules when faculty is deputed outstation to another institution (within India or abroad) for the duration of the seminar, conference or workshop, travel time and the time permitted by the BoG for visits to institutions/organizations of interest and relevance to the faculty in the vicinity of the location of seminar, workshop or conference</li> <li>• Registration fee; and local travel expenses as per applicable norms and rules when participation is within-station but at an institution other than the employer institution</li> </ul>	<p>Any other payment to the faculty for attending seminars, workshops, conferences, etc. if organized within the parent institution or at another institution but within-station</p>
<p>9. Training of technical support staff</p>	<ul style="list-style-type: none"> <li>• Course fee; travel expenses; boarding, lodging, and sundry expenses/allowances as per applicable norms and rules when the technical support staff is deputed outstation to another institution/organization within India and travel time</li> <li>• Course fee and local travel expenses as per applicable norms and rules when training is attended in-station but at an institution other than the parent institution</li> </ul>	<ul style="list-style-type: none"> <li>• Any other payment to the staff for attending the training programme</li> </ul>
<p>10. Industry-Institute Interaction</p>	<ul style="list-style-type: none"> <li>• Travel cost, hospitality and honorarium paid to industry personnel for participation in curriculum development/revision / restructure, student assessment and Institutional bodies, and for delivering expert lectures</li> <li>• Expenditure for increasing I-I through PSAG</li> <li>• Expenditure towards inviting industries (excluding travel cost and lodging boarding) for campus interviews and hospitality during campus interviews</li> <li>• Arranging tutoring by industry experts to prepare students for on- and off-campus job interviews</li> </ul>	<ul style="list-style-type: none"> <li>• Honorarium to faculty member incharge of I-I activity (It can be given from the Institution's own IRG)</li> </ul>

11. Reforms	<p>a) <i>Curricular Reforms:</i></p> <ul style="list-style-type: none"> <li>• travel cost, hospitality and honorarium paid to industry personnel for participation in curriculum development / revision / restructure and curricular reforms;</li> <li>• sundry expenditure on holding meetings of the concerned committees.</li> </ul> <p>b) <i>Accreditation:</i> Accreditation fee to NBA/NAAC.</p> <p>c) <i>Academic Support for Weak Students:</i></p> <ul style="list-style-type: none"> <li>• Honorarium to faculty and staff for taking bridge courses, remedial teaching classes and skill development training</li> <li>• Honorarium to faculty, staff, honorarium and TA, DA to outside experts for specialized training in soft components including communication-presentation skills</li> </ul>	<ul style="list-style-type: none"> <li>• Any payment to Accreditation Committee members in cash or kind.</li> </ul>
12. Institutional Management Capacity Enhancement	<p>a) <u>Training of Institution Officials and Senior Faculty:</u></p> <ul style="list-style-type: none"> <li>• Course fee; travel expenses, boarding and lodging, and sundry expenses/allowances as per applicable norms and rules when deputed out-station to another institution (within India or abroad) for the duration of the course, travel time and the time permitted by the BoG for visits to institutions/ organizations of interest and relevance to the faculty in the vicinity of the location of training</li> <li>• Trainer's fee and overheads; and sundry expenditure if training programmes organized within the parent institution.</li> </ul> <p>b) <u>Orientation of BoG Members:</u> Travel costs, boarding and lodging expenditure and sitting fee to Board members; sundry expenses on organizing orientation programme.</p> <p>c) <u>Study Tours:</u> Travel expenses, boarding and lodging, and sundry expenses / allowances as per applicable norms and rules when deputed for study tour within India or abroad for the duration of the tour and travel time.</p>	Any other payment to the officials and senior faculty for attending the course

<p>13. Organizing subject area training programmes, workshops, seminars and conferences</p>	<ul style="list-style-type: none"> <li>• Hospitality to participants</li> <li>• Venue and logistic arrangements</li> <li>• Replication of printed training materials</li> <li>• Publication of proceedings</li> <li>• Travel, boarding &amp; lodging for invited experts</li> </ul>	<ul style="list-style-type: none"> <li>• TA&amp;DA to participants</li> </ul>
<p>14. Technical Assistance</p>	<p>Consultancy services engaged for technical assistance related to:</p> <ul style="list-style-type: none"> <li>• pedagogical training</li> <li>• mentoring</li> <li>• external financial auditing</li> </ul>	
<p>15. Salaries</p>	<ul style="list-style-type: none"> <li>• Salaries of additional full-time regular and contract faculty and staff appointed against posts created under the Project for new PG programmes</li> </ul>	<ul style="list-style-type: none"> <li>• Salaries to contract faculty and staff appointed against existing vacancies</li> <li>• Salaries of Adjunct faculty appointed against existing vacancies (<i>These are to be borne by the institution</i>)</li> </ul>
<p>16. Maintenance of equipment including computers</p>	<ul style="list-style-type: none"> <li>• In-house maintenance of existing and new equipment</li> <li>• Maintenance of equipment including computers and related devices through Annual Maintenance Contracts</li> </ul>	<ul style="list-style-type: none"> <li>• Maintenance of buildings and furniture (<i>this should be carried out through institution's own budget</i>)</li> </ul>
<p>17. Incremental Operating Cost</p>	<p>Expenditure on:</p> <ul style="list-style-type: none"> <li>• Obtaining Autonomous Institution status from the affiliating university and UGC</li> <li>• TA &amp; DA for faculty and staff attending workshops and meetings organized by the NPIU and SPFUs</li> <li>• TA &amp; DA for faculty and staff attending training in the World Bank procedures as arranged by the NPIU and SPFUs</li> <li>• Student training materials and other consumables</li> <li>• Occasional hiring of vehicles for project related work only</li> <li>• Office operation including stationery, postage, electronic communication, telephone, electricity, water, etc. related to the Project</li> </ul>	

Table-3

**Permissible<sup>1</sup> and Non-permissible Expenditure  
for Government Funded and Aided Institutions and Private Unaided Participating in  
Sub-Component 1.2 : Scaling-up Postgraduate Education, Research & Development and  
Innovation**

Activity/Category of Expenditure	Government Funded and Aided Institutions <sup>2</sup> and Private Unaided Institutions	
	Permitted	Not Permitted
1. Improvements in teaching, training and learning facilities for PG programmes	a) Civil Works <sup>3</sup> for: <ul style="list-style-type: none"> <li>• refurbishment of existing structures/ spaces to create new laboratories for PG programmes and research</li> <li>• reducing environment degradation and complying with EMF (see Appendix-III)</li> </ul>	<ul style="list-style-type: none"> <li>• Civil Works undertaken for betterment of academic buildings such as UG classrooms; UG existing laboratories, workshops, computer center and library; constructing new spaces and betterment of hostels,</li> </ul>
	b) New equipment and furniture <sup>4</sup> for: <ul style="list-style-type: none"> <li>• modernizing and strengthening of existing PG laboratories</li> <li>• establishing new PG laboratories for existing programmes</li> <li>• Faculty research and institutional consultancy work</li> <li>• Campus-wide networking of academic and administrative buildings, hostels and faculty residences, and enhancing internet facilities</li> </ul>	<ul style="list-style-type: none"> <li>• Equipment and furniture for: (a) starting new UG programmes, and (b) improving hostel facilities other than electronic networking</li> <li>• Purchase of Vehicles</li> </ul>
	c) Modernization and Strengthening of Libraries: <ul style="list-style-type: none"> <li>• Procurement of print and digitized books, e-journals and course-specific software</li> <li>• Expenditure for digitization of library books</li> <li>• Establishment of CD bank</li> <li>• Membership of INDEST-AICTE etc.</li> </ul>	

<sup>1</sup> Expenditure is permissible only for the AICTE approved UG and PG teaching programmes, provided that Goods, Civil Works and Consultancy Services (including pedagogical training) are procured in accordance with the procurement methods and procedures given in the Procurement Manual [see Appendix-II in the Project Implementation Plan (PIP)] and are not declared ineligible expenditure by the financial auditors.

<sup>2</sup> The term Aided Institution includes institutions established and operated under Public-Private-Partnership mode.

<sup>3</sup> Expenditure for any Civil Work activity will not be admissible if undertaken with co-financing from any other source. It should be generally limited to about 3% of institution's Project allocation.

<sup>4</sup> Expenditure for procurement of any equipment and furniture will not be admissible if procured with co-financing from any other source. Total equipment procurement should be limited to about 50% of the institution's Project allocation.

2. Starting new PG programmes in engineering disciplines and increasing enrolment in PG programmes	<ul style="list-style-type: none"> <li>• Equipment for establishing laboratories for new PG programmes<sup>5</sup> in emerging areas of engineering and technology</li> <li>• Teaching Assistanceships and Research Assistanceships<sup>6</sup> for non-GATE qualified Master's and Doctoral students in engineering disciplines</li> <li>• Foreign fellowships not exceeding 3 months duration for Doctoral candidates in engineering disciplines subject to BoG approval on case to case basis</li> </ul>	<ul style="list-style-type: none"> <li>• Scholarships for GATE qualified students for Masters and Doctoral programmes are to be secured from Central and State agencies</li> </ul>
3. Enhancing faculty research and consultancy	<p>Expenditure for:</p> <ul style="list-style-type: none"> <li>• securing sponsored Projects and consultancy assignments</li> <li>• publication of research papers in peer reviewed journals</li> <li>• commercialization of research products</li> <li>• patenting of research products</li> </ul>	<ul style="list-style-type: none"> <li>• Fiscal incentives for increased participation in research, sponsored projects and consultancy work (<i>the incentives can however be given from institutional resources including IRG</i>)</li> <li>• All expenditure including travel and meetings associated with implementation of sponsored projects and consultancy assignments</li> </ul>
4. Developing research interest among UG students	<ul style="list-style-type: none"> <li>• Fiscal incentive (as per norms approved by the BoG) to students that voluntarily associate with industry oriented R&amp;D projects</li> <li>• Travel cost of students that associate with an industry for about 3-4 weeks during vacations to continue work on R&amp;D projects</li> </ul>	<ul style="list-style-type: none"> <li>• Boarding and lodging and sundry expenses for spending time in industry.</li> </ul>
5. Resource sharing through collaborative arrangements	<ul style="list-style-type: none"> <li>• Travel expenses; boarding, lodging, and sundry expenses/allowances for faculty visiting institutions and industries within India to develop and implement joint projects with well defined deliverables.</li> </ul>	<ul style="list-style-type: none"> <li>• Any other payment to the faculty for visits to institutions and industries for joint projects.</li> </ul>
6. Faculty <b>Qualification Upgradation</b> as planned through TNA	<ul style="list-style-type: none"> <li>• Fees charged for course work and use of research facilities; and consumables by the institution (other than the parent institution) where faculty is enrolled for qualification upgradation either through full-time or part-time or by sandwich</li> </ul>	<ul style="list-style-type: none"> <li>• Salary, living expenses and travel expenses of faculty registered for qualification upgradation (on full or part time or by sandwich arrangement) either within the parent institution or through deputation to another institution</li> </ul>

<sup>5</sup> Provided that admissions to the new programmes are made latest by 2010, more than 50% seats are occupied and there is sufficiency of faculty at all times

<sup>6</sup> The amounts of Teaching and Research Assistanceships will be governed by the norms as prescribed by the UGC/AICTE or the State Governments or by the respective Board of Governors.

	<ul style="list-style-type: none"> <li>arrangement</li> <li>Expenses towards thesis writing and publication of thesis-based research papers</li> <li>Consumables if faculty is registered for qualification upgradation on full-time or part-time basis within the parent institution</li> </ul>	
7. In-house <b>Basic Pedagogical Training</b> of Faculty from engineering disciplines and supporting departments	<ul style="list-style-type: none"> <li>Full fee (training cost + overheads towards travel, boarding, lodging, travel, training materials, etc.) charged by the Training Provider selected by the SPFU</li> </ul>	<ul style="list-style-type: none"> <li>Any payment to the faculty for attending the training programme</li> </ul>
8. In-house <b>Advanced Pedagogical Training</b> of Faculty from engineering disciplines and supporting departments	<ul style="list-style-type: none"> <li>Full fee (training cost + overheads towards travel, boarding, lodging, travel, training materials, etc.) charged by the Training Provider selected by the SPFU</li> </ul>	<ul style="list-style-type: none"> <li>Any payment to the faculty for attending the training programme</li> </ul>
9. <b>Subject knowledge and research competence upgradation</b> of Faculty from engineering disciplines and supporting departments as planned through TNA	<ul style="list-style-type: none"> <li>Course fee; travel expenses, boarding and lodging, and sundry expenses/allowances as per applicable norms and rules when faculty is deputed out-station to another institution (within India or abroad) for the duration of the course, travel time and the time permitted by the BoG for visits to institutions / organizations of interest and relevance to the faculty in the vicinity of the location of training</li> <li>Course fee and local travel expenses as per applicable norms and rules when faculty attends a course in-station but at an institution other than the parent institution</li> </ul>	<ul style="list-style-type: none"> <li>Any other payment to the faculty for attending the course</li> </ul>
10. Participation by faculty in seminars, conferences, workshops, etc.	<ul style="list-style-type: none"> <li>Registration fee; travel expenses; boarding, lodging, and sundry expenses/allowances as per applicable norms and rules when faculty is deputed outstation to another institution (within India or abroad) for the duration of the seminar, conference or workshop, travel time and the time permitted by the BoG for visits to institutions / organizations of interest and relevance to the faculty in the vicinity of the location of seminar, workshop or conference</li> <li>Registration fee; and local travel expenses as per applicable norms and rules when participation is</li> </ul>	<ul style="list-style-type: none"> <li>Any other payment to the faculty for attending seminars, workshops, conferences, etc. if organized within the parent institution or at another institution but within-station</li> </ul>

	within-station but at an institution other than the employer institution	
11. Training of technical support staff	<ul style="list-style-type: none"> <li>• Course fee; travel expenses; boarding, lodging, and sundry expenses/allowances as per applicable norms and rules when the technical support staff is deputed outstation to another institution/ organization within India and travel time</li> <li>• Course fee and local travel expenses as per applicable norms and rules when training is attended in-station but at an institution other than the parent institution</li> </ul>	<ul style="list-style-type: none"> <li>• Any other payment to the staff for attending the training programme</li> </ul>
12. Industry-Institute-Interaction	<ul style="list-style-type: none"> <li>• Travel cost, hospitality and honorarium paid to industry personnel for participation in curriculum development / revision / restructure, student assessment and institutional bodies, and for delivering expert lectures</li> <li>• Expenditure for increasing I-I-I through PSAG</li> <li>• Expenditure towards inviting industries (excluding travel cost and lodging boarding) for campus interviews and hospitality during campus interviews</li> <li>• Arranging tutoring by industry experts to prepare students for on- and off-campus job interviews</li> </ul>	<ul style="list-style-type: none"> <li>• Honorarium to faculty member incharge of I-I-I activity (It can be provided from Institution's IRG).</li> </ul>
13. Reforms	<p>a) <i>Curricular Reforms:</i></p> <ul style="list-style-type: none"> <li>• travel cost, hospitality and honorarium paid to industry personnel for participation in curriculum development/ revision/restructure and curricular reforms;</li> <li>• sundry expenditure on holding meetings of the concerned committees.</li> </ul> <p>b) <i>Incentives to Faculty for Continuing Education Programmes, Consultancy and R&amp;D:</i></p> <ul style="list-style-type: none"> <li>• honorarium for organizing and administering CE programmes</li> <li>• honorarium for delivering lectures and training in CE programmes as per norms decided by the BoG</li> </ul>	<ul style="list-style-type: none"> <li>• Fiscal incentives for increased participation in research, sponsored projects and consultancy work (<i>the incentives can, however, be given from institutional resources including IRG</i>)</li> </ul>

	<p>c) <i>Accreditation</i>: Accreditation fee to NBA/NAAC.</p> <p>d) <i>Academic Support for Weak Students</i>:</p> <ul style="list-style-type: none"> <li>• Honorarium to faculty and staff for taking bridge courses, remedial teaching classes and skill development training</li> <li>• Honorarium to faculty, staff, Honorarium and TA, DA to outside experts for specialized training in soft components including communication-presentation skills</li> </ul>	<ul style="list-style-type: none"> <li>• Any payment to Accreditation Committee members in cash or kind</li> </ul>
14. Institutional Management Capacity Enhancement	<p>a) <u>Training of Institution Officials and Senior Faculty</u>:</p> <ul style="list-style-type: none"> <li>• Course fee; travel expenses, boarding and lodging, and sundry expenses/allowances as per applicable norms and rules when deputed out-station to another institution (within India or abroad) for the duration of the course, travel time and the time permitted by the BoG for visits to institutions/organizations of interest and relevance to the faculty in the vicinity of the location of training</li> <li>• Trainer's fee and overheads; and sundry expenditure if training programmes organized within the parent institution.</li> </ul> <p>b) <u>Orientation of BoG Members</u>: Travel costs, boarding and lodging expenditure and sitting fee to Board members; sundry expenses on organizing orientation programme.</p> <p>c) <u>Study Tours</u>: Travel expenses, boarding and lodging, and sundry expenses/allowances as per applicable norms and rules when deputed for study tour within India or abroad for the duration of the tour and travel time.</p>	Any other payment to the officials and senior faculty for attending the course
15. Organizing subject area training programmes, workshops, seminars and conferences	<ul style="list-style-type: none"> <li>• Hospitality to participants</li> <li>• Venue and logistic arrangements</li> <li>• Replication of printed training materials</li> </ul>	<ul style="list-style-type: none"> <li>• TA&amp;DA to participants</li> </ul>

	<ul style="list-style-type: none"> <li>• Publication of proceedings</li> <li>• Travel, boarding &amp; lodging for invited experts</li> </ul>	
16. Technical Assistance	<p>Consultancy services engaged for technical assistance related to:</p> <ul style="list-style-type: none"> <li>• procurement of Civil Works and equipment</li> <li>• pedagogical training</li> <li>• mentoring</li> <li>• hand-holding for Project implementation as required by weak institutions</li> <li>• external financial auditing</li> </ul>	
17. Salaries	<ul style="list-style-type: none"> <li>• Salaries of additional full-time regular and contract faculty and staff appointed against posts created under the Project</li> </ul>	<ul style="list-style-type: none"> <li>• Salaries to contract faculty and staff appointed against existing vacancies</li> <li>• Salaries of Adjunct faculty appointed against existing vacancies (<i>These are to be borne by the institution</i>)</li> </ul>
18. Maintenance of equipment including computers	<ul style="list-style-type: none"> <li>• In-house maintenance of existing and new equipment</li> <li>• Maintenance of equipment including computers and related devices and assets provided under the Project through Annual Maintenance Contracts</li> </ul>	<ul style="list-style-type: none"> <li>• Maintenance of buildings and furniture (<i>this should be carried out through institution's own budget</i>)</li> </ul>
19. Incremental Operating Cost	<p>Expenditure on:</p> <ul style="list-style-type: none"> <li>• BoG and other Committee meetings</li> <li>• Obtaining Autonomous Institution status from the affiliating university and UGC</li> <li>• TA &amp; DA for faculty and staff attending workshops and meetings organized by the NPIU and SPFUs</li> <li>• TA &amp; DA for faculty and staff attending training in the World Bank procedures as arranged by the NPIU and SPFUs</li> <li>• Contract fee for outsourced services</li> <li>• Student training materials and other consumables</li> <li>• Occasional hiring of vehicles for Project related work only</li> <li>• Office operation including stationery, postage, electronic communication, telephone, electricity, water, etc.</li> </ul>	

**Table-4**  
**Permissible<sup>1</sup> and Non-Permissible Expenditure**  
**for Government Funded and Aided Institutions and Private Unaided Participating in**  
**Sub-Component 1.2.1 : Establishing Centers of Excellence**

Activity/Category of Expenditure	Government Funded and Aided Institutions <sup>2</sup> and Private Unaided Institutions	
	Permitted	Not Permitted
1. Improvements in teaching, training and learning facilities for PG programmes	a) Civil Works for: <ul style="list-style-type: none"> <li>• refurbishment of existing structures/ spaces to create new laboratories for PG programmes and research</li> <li>• reducing environment degradation and complying with EMF (see Appendix-III).</li> </ul>	<ul style="list-style-type: none"> <li>• Civil Works undertaken for betterment of academic buildings such as classrooms; existing laboratories, workshops, computer center and library; constructing new spaces and betterment of hostels,</li> </ul>
	b) New equipment and furniture <sup>3</sup> for: <ul style="list-style-type: none"> <li>• modernizing and strengthening of existing PG laboratories</li> <li>• establishing new PG laboratories for existing programmes</li> <li>• Faculty research and Institutional consultancy work</li> <li>• Campus-wide networking of academic and administrative buildings, hostels and faculty residences, and enhancing internet facilities</li> </ul>	<ul style="list-style-type: none"> <li>• Equipment and furniture for: (a) starting new UG programmes, and (b) improving hostel facilities other than electronic networking</li> <li>• Purchase of Vehicles</li> </ul>
	c) Modernization and Strengthening of Libraries: <ul style="list-style-type: none"> <li>• Procurement of print and digitized books, e-journals and course-specific software</li> <li>• Expenditure for digitization of library books</li> <li>• Establishment of CD bank</li> <li>• Membership of INDEST-AICTE etc.</li> </ul>	
2. Starting new PG programmes in engineering disciplines and increasing enrolment in PG programmes	<ul style="list-style-type: none"> <li>• Equipment for establishing laboratories for new PG programmes<sup>4</sup> in emerging areas of engineering and technology</li> <li>• Teaching Assistanceships and Research Assistanceships<sup>5</sup> for non-GATE qualified Master's and Doctoral students in engineering disciplines</li> <li>• Foreign fellowships not exceeding 3 months duration for Doctoral candidates in engineering disciplines</li> </ul>	<ul style="list-style-type: none"> <li>• Scholarships for GATE qualified students for Masters and Doctoral programmes are to be secured from Central and State agencies</li> </ul>

<sup>1</sup> Expenditure is permissible only for the AICTE approved UG and PG teaching programmes, provided that Goods, Civil Works and Consultancy Services (including pedagogical training) are procured in accordance with the procurement methods and procedures given in the Procurement Manual [see Appendix-II in the Project Implementation Plan (PIP) and are not declared ineligible expenditure by the financial auditors.

<sup>2</sup> The term Aided Institution includes institutions established and operated under Public-Private-Partnership mode.

<sup>3</sup> Expenditure for procurement of any equipment and furniture will not be admissible if procured with co-financing from any other source. Total equipment procurement should be limited to about 50% of the institution's Project allocation.

	subject to BoG approval on case to case basis	
3. Enhancing faculty research and consultancy	Expenditure for: <ul style="list-style-type: none"> <li>• securing sponsored projects and consultancy assignments</li> <li>• publication of research papers in peer reviewed journals</li> <li>• commercialization of research products</li> <li>• patenting of research products</li> </ul>	<ul style="list-style-type: none"> <li>• Fiscal incentives for increased participation in research, sponsored projects and consultancy work (<i>the incentives can however be given from Institutional resources including IRG</i>)</li> <li>• All expenditure including travel and meetings associated with implementation of sponsored projects and consultancy assignments</li> </ul>
4. Developing research interest among UG students	<ul style="list-style-type: none"> <li>• Fiscal incentive (as per norms approved by the BoG) to students that voluntarily associate with industry oriented R&amp;D projects</li> <li>• Travel cost of students that associate with an industry for about 3-4 weeks during vacations to continue work on R&amp;D projects</li> </ul>	<ul style="list-style-type: none"> <li>• Boarding and lodging and sundry expenses for spending time in industry.</li> </ul>
5. External collaboration with national and international research institutions and industries	<ul style="list-style-type: none"> <li>• Travel expenses; boarding, lodging, and sundry expenses/allowances for faculty visiting institutions and industries within India and abroad to develop and implement joint projects with well defined deliverables.</li> </ul>	<ul style="list-style-type: none"> <li>• Any other payment to the faculty for visits to institutions and industries for joint projects.</li> </ul>
6. Faculty <b>Qualification Upgradation</b> as planned through TNA	<ul style="list-style-type: none"> <li>• Fees charged for course work and use of research facilities; and consumables by the institution (other than the parent institution) where faculty is enrolled for qualification upgradation either through full-time or part-time or by sandwich arrangement</li> <li>• Expenses towards thesis writing and publication of thesis-based research papers</li> <li>• Consumables if faculty is registered for qualification upgradation on full-time or part-time basis within the parent institution</li> </ul>	<ul style="list-style-type: none"> <li>• Salary, living expenses and travel expenses of faculty registered for qualification upgradation (on full or part time or by sandwich arrangement) either within the parent institution or through deputation to another institution</li> </ul>
7. In-house <b>Basic Pedagogical Training</b> of Faculty from engineering disciplines and supporting departments	<ul style="list-style-type: none"> <li>• Full fee (training cost+overheads towards travel, boarding, lodging, travel, training materials, etc.) charged by the Training Provider selected by the SPFU</li> </ul>	<ul style="list-style-type: none"> <li>• Any payment to the faculty for attending the training programme</li> </ul>
8. In-house <b>Advanced Pedagogical Training</b> of Faculty from engineering disciplines and supporting departments	<ul style="list-style-type: none"> <li>• Full fee (training cost+overheads towards travel, boarding, lodging, travel, training materials, etc.) charged by the Training Provider selected by the SPFU</li> </ul>	<ul style="list-style-type: none"> <li>• Any payment to the faculty for attending the training programme</li> </ul>

<sup>4</sup> Provided that admissions to the new programmes are made latest by 2010, more than 50% seats are occupied and there is sufficiency of faculty at all times

<sup>5</sup> The amounts of Teaching and Research Assistanceships will be governed by the norms as prescribed by the UGC/AICTE or the State Governments or by the respective Board of Governors.

<p>9. <b>Subject knowledge and research competence upgradation</b> of Faculty from engineering disciplines and supporting departments as planned through TNA</p>	<ul style="list-style-type: none"> <li>• Course fee; travel expenses, boarding and lodging, and sundry expenses/allowances as per applicable norms and rules when faculty is deputed out-station to another institution (within India or abroad) for the duration of the course, travel time and the time permitted by the BoG for visits to institutions/ organizations of interest and relevance to the faculty in the vicinity of the location of training</li> <li>• Course fee and local travel expenses as per applicable norms and rules when faculty attends a course in-station but at an institution other than the parent institution</li> </ul>	<ul style="list-style-type: none"> <li>• Any other payment to the faculty for attending the course</li> </ul>
<p>10. Participation by faculty in seminars, conferences, workshops, etc.</p>	<ul style="list-style-type: none"> <li>• Registration fee; travel expenses; boarding, lodging, and sundry expenses/allowances as per applicable norms and rules when faculty is deputed outstation to another institution (within India or abroad) for the duration of the seminar, conference or workshop, travel time and the time permitted by the BoG for visits to institutions/organizations of interest and relevance to the faculty in the vicinity of the location of seminar, workshop or conference</li> <li>• Registration fee; and local travel expenses as per applicable norms and rules when participation is within-station but at an institution other than the employer institution</li> </ul>	<p>Any other payment to the faculty for attending seminars, workshops, conferences, etc. if organized within the parent institution or at another institution but within-station</p>
<p>11. Training of technical support staff</p>	<ul style="list-style-type: none"> <li>• Course fee; travel expenses; boarding, lodging, and sundry expenses/allowances as per applicable norms and rules when the technical support staff is deputed outstation to another institution/ organization within India and travel time</li> <li>• Course fee and local travel expenses as per applicable norms and rules when training is attended in-station but at an institution other than the parent institution</li> </ul>	<ul style="list-style-type: none"> <li>• Any other payment to the staff for attending the training programme</li> </ul>

12. Industry-Institute-Interaction	<ul style="list-style-type: none"> <li>• Travel cost, hospitality and honorarium paid to industry personnel for participation in curriculum development / revision / restructure, student assessment and Institutional bodies, and for delivering expert lectures</li> <li>• Expenditure for increasing I-I-I through PSAG</li> <li>• Expenditure towards inviting industries (excluding travel cost and lodging boarding) for campus interviews and hospitality during campus interviews</li> <li>• Arranging tutoring by industry experts to prepare students for on- and off-campus job interviews</li> </ul>	<ul style="list-style-type: none"> <li>• Honorarium to faculty member incharge of I-I-I-activity (It can be provided from Institution's IRG)</li> </ul>
13. Reforms	<p>a) <i>Curricular Reforms:</i></p> <ul style="list-style-type: none"> <li>• travel cost, hospitality and honorarium paid to industry personnel for participation in curriculum development/ revision/ restructure and curricular reforms;</li> <li>• sundry expenditure on holding meetings of the concerned committees.</li> </ul>	
	<p>b) <i>Incentives to Faculty for Continuing Education Programmes, Consultancy and R&amp;D:</i></p> <ul style="list-style-type: none"> <li>• honorarium for organizing and administering CE programmes</li> <li>• honorarium for delivering lectures and training in CE programmes as per norms decided by the BoG</li> </ul>	<ul style="list-style-type: none"> <li>• Fiscal incentives for increased participation in research, sponsored projects and consultancy work (<i>the incentives can however be given from Institutional resources including IRG</i>)</li> </ul>
	<p>c) <i>Accreditation:</i> Accreditation fee to NBA/NAAC.</p>	<ul style="list-style-type: none"> <li>• Any payment to Accreditation Committee members in cash or kind.</li> </ul>
	<p>d) <i>Academic Support for Weak Students:</i></p> <ul style="list-style-type: none"> <li>• Honorarium to faculty and staff for taking bridge courses, remedial teaching classes and skill development training</li> <li>• Honorarium to faculty, staff, honorarium and TA, DA to outside experts for specialized training in soft components including communication-presentation skills</li> </ul>	
14. Institutional Management Capacity Enhancement	<p>a) <u>Training of Institution Officials and Senior Faculty:</u></p> <ul style="list-style-type: none"> <li>• Course fee; travel expenses, boarding and lodging, and sundry</li> </ul>	Any other payment to the officials and senior faculty for attending the course

	<p>expenses/allowances as per applicable norms and rules when deputed out-station to another institution (within India or abroad) for the duration of the course, travel time and the time permitted by the BoG for visits to institutions/ organizations of interest and relevance to the faculty in the vicinity of the location of training</p> <ul style="list-style-type: none"> <li>• Trainer’s fee and overheads; and sundry expenditure if training programmes organized within the parent institution.</li> </ul> <p>b) <u>Orientation of BoG Members</u>: Travel costs, boarding and lodging expenditure and sitting fee to Board members; sundry expenses on organizing orientation programme.</p> <p>c) <u>Study Tours</u>: Travel expenses, boarding and lodging, and sundry expenses/allowances as per applicable norms and rules when deputed for study tour within India or abroad for the duration of the tour and travel time.</p>	
15. Organizing subject area training programmes, workshops, seminars and conferences	<ul style="list-style-type: none"> <li>• Hospitality to participants</li> <li>• Venue and logistic arrangements</li> <li>• Replication of printed training materials</li> <li>• Publication of proceedings</li> <li>• Travel, boarding &amp; lodging for invited experts</li> </ul>	<ul style="list-style-type: none"> <li>• TA&amp;DA to participants</li> </ul>
16. Technical Assistance	<p>Consultancy services engaged for technical assistance related to:</p> <ul style="list-style-type: none"> <li>• procurement of Civil Works and equipment,</li> <li>• pedagogical training</li> <li>• mentoring</li> <li>• hand-holding for Project implementation as required by weak institutions</li> <li>• external financial auditing</li> </ul>	
17. Salaries	<ul style="list-style-type: none"> <li>• Salaries of additional full-time regular and contract faculty and staff appointed against posts created under the Project</li> </ul>	<ul style="list-style-type: none"> <li>• Salaries to contract faculty and staff appointed against existing vacancies</li> <li>• Salaries of Adjunct faculty appointed against existing vacancies (<i>These are to be borne by the institution</i>)</li> </ul>
18. Maintenance of equipment including computers	<ul style="list-style-type: none"> <li>• In-house maintenance of existing and new equipment</li> <li>• Maintenance of equipment including computers and related devices through Annual Maintenance Contracts</li> </ul>	<ul style="list-style-type: none"> <li>• Maintenance of buildings and furniture (<i>this should be carried out through institution’s own budget</i>)</li> </ul>

<p>19. Incremental Operating Cost</p>	<p>Expenditure on:</p> <ul style="list-style-type: none"> <li>• BoG and other committee meetings</li> <li>• Obtaining Autonomous Institution status from the affiliating university and UGC</li> <li>• TA &amp; DA for faculty and staff attending workshops and meetings organized by the NPIU and SPFUs</li> <li>• TA &amp; DA for faculty and staff attending training in the World Bank procedures as arranged by the NPIU and SPFUs</li> <li>• Contract fee for outsourced services</li> <li>• Student training materials and other consumables</li> <li>• Occasional hiring of vehicles for Project related work only</li> <li>• Office operation including stationery, postage, electronic communication, telephone, electricity, water, etc.</li> </ul>	
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Table-5

**Permissible<sup>1</sup> and Non-Permissible Expenditure  
for the National Project Implementation Unit (NPIU)**

Activity/ Expenditure Category	Permitted	Not Permitted
1. Civil Works	<ul style="list-style-type: none"> <li>• Refurbishment of office building</li> </ul>	-----
2. Equipment and Furniture	<ul style="list-style-type: none"> <li>• All equipment and furniture required for an efficient and modern offices of the NPIU and National Project Directorate</li> </ul>	-----
3. Training of senior and support staff in functional areas	<ul style="list-style-type: none"> <li>• Course fee; travel expenses; boarding, lodging, and sundry expenses/allowances as per applicable norms and rules when the staff is deputed outstation to another institution/ organization within India and travel time</li> <li>• Course fee and local travel expenses as per applicable norms and rules when training is attended in-station but at an institution/organization other than the parent institution</li> </ul>	<ul style="list-style-type: none"> <li>• Any other payment to the staff for attending the training programme</li> </ul>
4. Participation of staff in meetings, workshops, etc.	<ul style="list-style-type: none"> <li>• Travel expenses; boarding, lodging, and sundry expenses/allowances as per applicable norms and rules and travel time</li> <li>• Local travel expenses as per applicable norms and rules when participation is within-station but at a place other than the office</li> </ul>	Any payment other than local travel expenses to the staff for attending meetings and workshops within-station
5. Meetings of various committees (NSC, NEC, pedagogy curriculum development, etc.)	<ul style="list-style-type: none"> <li>• Travel expenses; boarding, lodging, and sundry expenses/allowances for out-station non-official members as per applicable norms and rules</li> <li>• Local travel expenses for in-station non-official members as per applicable norms and rules</li> <li>• Sitting fee to non-official members</li> <li>• Operational cost</li> </ul>	
6. National Private Sector Advisory Group	<ul style="list-style-type: none"> <li>• Travel expenses; boarding, lodging, and sundry expenses/allowances for out-station members as per Central Government applicable norms and rules</li> <li>• Local travel expenses for in-station non-official members as per applicable norms and rules</li> <li>• Salaries of support staff in PSAG secretariat (hosted by either CII or FICCI) after one year experience of PSAG functioning</li> <li>• Operational cost of PSAG meetings</li> </ul>	<ul style="list-style-type: none"> <li>• Sitting fee for PSAG members</li> <li>• Rental for PSAG secretariat office</li> <li>• Salaries of support staff in PSAG secretariat during the First Year of the Project</li> <li>• PSAG meeting venue rental</li> </ul>

<sup>1</sup> Expenditure is permissible only for Goods, Civil Works and Consultancy Services that are procured in accordance with the procurement methods and procedures given in the Procurement Manual [see Appendix-II in the Project Implementation Plan (PIP)] and are not declared ineligible expenditure by the financial auditors.

7. Organizing 2 regional workshops each year for sharing good academic and governance practices and innovations	<ul style="list-style-type: none"> <li>Operational expenditure for organizing and hosting workshops</li> <li>Travel expenses; boarding, lodging, and sundry expenses/allowances for non-official out-station experts from academia and industry including foreign experts as per Central Government applicable norms and rules</li> <li>Local travel expenses for invited non-official local experts from academia and industry as per applicable norms and rules</li> </ul>	<ul style="list-style-type: none"> <li>TA&amp;DA to members of PSAG, officials of industry associations, other officials and representatives from SPFUs and project and non-project institutions</li> </ul>
8. System Management Capacity Enhancement (to be financed solely through the Innovation Fund)	<p>a) Study Tours:</p> <ul style="list-style-type: none"> <li>Operational cost for organizing study tours of Vice-Chancellors, policy planners and senior administrators at the national and State levels including senior officials of NPIU and SPFUs</li> <li>Travel, boarding, lodging and sundry expenditure for the duration of the tour and travel time for national level policy planners and implementers, central university Vice-Chancellors and officials of NPIU</li> </ul>	<ul style="list-style-type: none"> <li>Travel, boarding, lodging and sundry expenditure for the duration of the tour and travel time for State level policy planners and senior administrators, and State universities' Vice-Chancellors and SPFU officials</li> </ul>
	<p>b) Professional Training Programmes:</p> <ul style="list-style-type: none"> <li>Operational cost for organizing thematic training programmes for Vice-Chancellors, policy planners and senior administrators at the national and State levels including senior officials of NPIU and SPFUs</li> <li>Travel, boarding, lodging and sundry expenditure for the duration of the training programme and travel time for national level policy planners and senior administrators, central university Vice-Chancellors and officials of NPIU</li> </ul>	<ul style="list-style-type: none"> <li>Travel, boarding, lodging and sundry expenditure for the duration of the training programme and travel time for State level policy planners and senior administrators, and State universities' Vice-Chancellors and SPFU officials</li> </ul>
9. Technical Assistance	<p>Consultancy services engaged for technical assistance related to:</p> <ul style="list-style-type: none"> <li>MIS and PMSS</li> <li>studies and surveys</li> <li>development and web-hosting of Annual Training Calendar for faculty</li> <li>mentoring</li> <li>performance and technical auditing</li> <li>external financial auditing</li> <li>Other tasks</li> </ul>	
10. Salaries	<ul style="list-style-type: none"> <li>Salaries of full-time regular and contract officials and staff against posts created under the Project</li> </ul>	
11. Maintenance of office space, furniture and equipment including computers and buildings	<ul style="list-style-type: none"> <li>Maintenance of office building and furniture</li> <li>Maintenance of equipment including computers and related devices through Annual Maintenance Contracts</li> </ul>	

<p>12. Incremental Operating Cost</p>	<p>a) Operational Expenditure on:</p> <ul style="list-style-type: none"> <li>• Joint Review Missions</li> <li>• Training programmes for officials from SPFU</li> <li>• Orientation meetings for evaluation committee members and mentors, performance, technical and fiduciary auditors</li> <li>• National Task Force for developing guidelines for effective functioning of Institutional BoGs</li> <li>• Consultation meetings</li> <li>• Post-procurement audits of CFIs</li> </ul> <p>b) Maintenance of NPIU's website</p> <p>c) Rental of office space</p> <p>d) Contract fee for outsourced services</p> <p>e) Occasional hiring of vehicles for Project related work only</p> <p>f) Office operation including stationery, printing of various documents, postage, electronic communication, advertising, telephone, electricity, water, TA&amp;DA, etc.</p>	
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**Table-6**  
**Permissible<sup>1</sup> and Non-Permissible Expenditure**  
**for the State Project Facilitation Units (SPFUs)**

Activity/ Expenditure Category	Permitted	Not Permitted
1. Civil works	<ul style="list-style-type: none"> <li>• Refurbishment of office building</li> </ul>	-----
2. Equipment and Furniture	<ul style="list-style-type: none"> <li>• All equipment and furniture required for an efficient and modern SPFU office</li> </ul>	-----
3. Training of senior and support staff in functional areas	<ul style="list-style-type: none"> <li>• Course fee; travel expenses; boarding, lodging, and sundry expenses / allowances as per applicable norms and rules when the staff is deputed outstation to another institution/ organization within India and travel time</li> <li>• Course fee and local travel expenses as per applicable norms and rules when training is attended in-station but at an institution/organization other than the parent institution</li> </ul>	<ul style="list-style-type: none"> <li>• Any other payment to the staff for attending the training programme</li> </ul>
4. Participation of staff in meetings, workshops, etc.	<ul style="list-style-type: none"> <li>• Travel expenses; boarding, lodging, and sundry expenses/allowances as per applicable norms and rules and travel time</li> <li>• Local travel expenses as per applicable norms and rules when participation is within-station but at a place other than the office</li> </ul>	Any payment other than local travel expenses to the staff for attending meetings and workshops within-station
5. Meetings of State Steering Committee	<ul style="list-style-type: none"> <li>• Travel expenses; boarding, lodging, and sundry expenses/allowances for out-station non-official members as per applicable norms and rules</li> <li>• Local travel expenses for in-station non-official members as per applicable norms and rules</li> <li>• Sitting fee to non-official members</li> <li>• Operational cost</li> </ul>	
6. State Private Sector Advisory Group (optional)	<ul style="list-style-type: none"> <li>• Travel expenses; boarding, lodging, and sundry expenses/allowances for out-station members as per applicable norms and rules</li> <li>• Local travel expenses for in-station non-official members as per applicable norms and rules</li> <li>• Salaries of support staff in State-PSAG secretariat (hosted by either CII or FICCI) after one year experience of PSAG functioning</li> <li>• Operational cost of State-PSAG meetings</li> </ul>	<ul style="list-style-type: none"> <li>• Sitting fee for State-PSAG members</li> <li>• Rental for State-PSAG secretariat office</li> <li>• Salaries of support staff in State-PSAG secretariat during the First Year of the Project</li> <li>• State-PSAG meeting venue rental</li> </ul>

<sup>1</sup> Expenditure is permissible only for Goods, Civil Works and Consultancy Services that are procured in accordance with the procurement methods and procedures given in the Procurement Manual [see Appendix-II in the Project Implementation Plan (PIP) and are not declared ineligible expenditure by the financial auditors.

7. System Management Capacity Enhancement (to be financed solely through the Innovation Fund)	a) Study Tours: <ul style="list-style-type: none"> <li>• Travel, boarding, lodging and sundry expenditure for the duration of the tour and travel time for State level policy planners and implementers, university Vice-Chancellors and officials of SPFU</li> </ul>	
	b) Professional Training Programmes: <ul style="list-style-type: none"> <li>• Travel, boarding, lodging and sundry expenditure for the duration of the training programme and travel time for State level policy planners and senior administrators, university Vice-Chancellors and officials of SPFU</li> </ul>	
	c) Establishment of Quality Assurance Practices: <ul style="list-style-type: none"> <li>• Refurbishment of existing space, furniture and office equipment for the secretariat of the Quality Assurance Cell (<i>to be preferably located in the premises of either the State Technical University or the Directorate of Technical Education</i>)</li> <li>• Salaries of full time officers and staff</li> <li>• Expenditure towards development of quality assurance criteria, and quality assurance mechanism and the associated MIS</li> <li>• Travel, boarding, lodging and sundry expenditure for the duration of the tour and travel time for the QA Cell officials and experts during inspection visits to institutions</li> <li>• Travel, boarding, lodging and sundry expenses and sitting-fee to non-official members of QA team during its meetings</li> <li>• Operational expenses for the QA Cell</li> </ul>	
	d) Establishing a Task Force for strategic planning for Technical Education: <ul style="list-style-type: none"> <li>• Travel, boarding, lodging and sundry expenses and sitting-fee to non-official members of the Task Force team during its meetings</li> <li>• Operational expenses for the meetings of the Task Force</li> </ul>	

	<p>e) Spreading best practices to non-project institutions:</p> <ul style="list-style-type: none"> <li>• Cost training fee only for Basic pedagogical training of faculty in non-project institutions</li> <li>• Cost of subject area training fee and travel of faculty in select specializations on cost-sharing basis</li> <li>• Cost towards delivery of bridge courses, extra classes and special coaching for weak students on cost sharing basis</li> </ul>	
	<p>f) Industry-Institute-Partnership-Promotion (IIPP) Cells:</p> <ul style="list-style-type: none"> <li>• Operational expenses of IIPP Cell established by CII or FICCI in its Headquarters</li> <li>• Salary of 2 full-time officials</li> <li>• Travel, boarding, and lodging expenses for the IIPP Cell officials on visits to industries as per State approved norms and rules</li> </ul>	
	<p>g) Workshops for sharing best academic and governance practices:</p> <ul style="list-style-type: none"> <li>• Operational expenditure for organizing and hosting workshops</li> <li>• Travel expenses; boarding, lodging, and sundry expenses/allowances for non-official out-station experts from academia and industry including foreign experts as per applicable norms and rules</li> <li>• Local travel expenses for invited non-official local experts from academia and industry as per applicable norms and rules</li> </ul>	<ul style="list-style-type: none"> <li>• TA&amp;DA to members of State-PSAG, officials of industry associations representatives from project and non-project institutions</li> </ul>
	<p>h) Establishment of Curriculum Development Cells in universities affiliating Project Institutions:</p> <ul style="list-style-type: none"> <li>• Refurbishment of existing space, furniture and office equipment for the Secretariat of the CD Cell</li> <li>• Travel, boarding, lodging and sundry expenses and sitting-fee to non-official members of CD Committees during its meetings</li> <li>• Honorarium to faculty serving in CD Cell as per host university norms</li> </ul>	

	<ul style="list-style-type: none"> <li>• Sitting fee to faculty participating in curriculum development exercises as per host university norms</li> <li>• Operational expenses of the CD Cell and for the meetings of the CD Committees</li> </ul>	
8. Technical Assistance	<p>Consultancy services engaged for technical assistance related to:</p> <ul style="list-style-type: none"> <li>• Experts to guide institutions carry out high quality SWOT and TNA</li> <li>• Experts for helping institutions prepare proposals and implement Institutional Projects (<b>permitted for new States only</b>)</li> <li>• Experts for helping / guiding institutions to implement EAP and EMF</li> <li>• Pedagogical training of faculty from project and non-project institutions</li> <li>• Professional training of technical and administrative support staff</li> <li>• Studies and surveys, if any</li> <li>• Mentoring</li> <li>• Performance and technical auditing</li> <li>• Post-procurement audits of institutions</li> <li>• External financial auditing</li> <li>• Other tasks</li> </ul>	<ul style="list-style-type: none"> <li>• Hiring of experts to help institutions prepare proposals and implement Institutional Projects (<b>not permitted for old States</b>)</li> </ul>
9. Salaries	<ul style="list-style-type: none"> <li>• Salaries of full-time regular and contract officials and staff against posts created under the Project</li> </ul>	
10. Maintenance of office space, furniture and equipment including computers and buildings	<ul style="list-style-type: none"> <li>• Maintenance of office building and furniture</li> <li>• Maintenance of equipment including computers and related devices through Annual Maintenance Contracts</li> </ul>	
11. Incremental Operating Cost	<p>a) Operational Expenditure on:</p> <ul style="list-style-type: none"> <li>• Workshops for training institutions in the preparation of eligibility and development proposals</li> <li>• Joint Review Missions</li> <li>• Training programmes for faculty and staff from institutions</li> <li>• Orientation meetings for mentors, performance, technical and fiduciary auditors</li> </ul>	

	<ul style="list-style-type: none"><li>• Field visits to institutions for monitoring Project Implementation</li><li>• Consultation meetings</li><li>• Post-procurement audits of Project Institutions</li></ul> <p>b) Maintenance of SPFU's website</p> <p>c) Contract fee for outsourced services</p> <p>d) Occasional hiring of vehicles for Project related work only</p> <p>e) Office operation including stationery, printing of various documents, postage, electronic communication, advertising, telephone, electricity, water, TA&amp;DA, etc.</p>	
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## Section – VIII

# PROCUREMENT MANAGEMENT

### **8.1 Procurement Guidelines:**

Procurement of all Goods and Works under the Project will be carried out in accordance with the World Bank "Guidelines: Procurement Under IBRD Loans and IDA Credits" May 2004 and revised October 2006 (Procurement Guidelines); and the agreed procedures and limits described in the financing agreement. The World Bank Norms and Guidelines should be strictly followed under the Project to avoid penalties.

### **8.2 Procurement Arrangements:**

The Institutions must form separate (i) Procurement Committee and (ii) Building & Works Committee to manage all Institutional procurement activities for Goods and Works. The Committees will seek approval, and will function under the supervision of BoG. The institutions must also nominate a coordinator for all procurement activities under the Project.

### **8.3 Procurement Management Support System (PMSS):**

A web based Procurement Management Support System (PMSS) will be used in the Project. This system will be used to monitor the procurement activities of the selected institutions in the Project. PMSS will help the procurement activities by reducing time, standardizing the processes followed, ensuring transparency, improved monitoring, support decision-making and compliance with agreed norms.

The PMSS is expected to generate status reports regarding procurement activities at the Institutional level, SPFUs and NPIU/MHRD. It will help in monitoring the procurement at each level.

### **8.4 Procurement Manual:**

The "Procurement Manual" developed for the Project provides the essential information and step-by-step procedures in brief, about procurement of Goods, Civil Works and Services to facilitate procurement under the Project.

The manual is intended for procurement officials to achieve a uniform system of procurement in all institutions under the Project. It is also intended to guide the implementation agencies to understand the procedures to be followed for procurement (for details refer Appendix-II).

### **8.5 Institutional Procurement Plan:**

A Procurement Plan should be prepared clearly laying down the budget required by the institutions for procurement activities. It is an essential tool for proper monitoring and execution of the procurement activities. The Procurement Plan should cover Goods, Civil Works, and Consultancy Services for the whole of the Project life.

The institution will initially submit an eighteen-month Procurement Plan along with the Institutional Development Proposal. The details of the procurement activities will include their estimated cost. The format of 18 months Procurement Plan for Goods, Works and Services is given in Table-1 and Table-2 respectively.

**8.6 Procurement of Goods:**

The Procurement of Goods by the Project Institutions includes three components: (i) Equipment (ii) Furniture (iii) Books & Learning Resources.

**8.7 Procurement of Works:**

The Project does not envisage large scale Civil Works but has provision to meet essential requirements of developmental plans of institutions for acquiring excellence. Civil Works in Project Institution include (i) Repair works (ii) Refurbishment works and (iii) Extension of existing buildings.

**8.7.1 Civil Works Manual (inclusive of Environment Management Framework):**

The "Civil Works Manual" provides the essential information and step-by-step procedures about the designing, preparing and implementation of Civil Works under the Project.

The manual is intended to guide the implementation agencies in understanding the procedures to be followed while preparing the designs of various works and the checks that need to be made during the implementation of such works. The objective is to have a uniform system of Civil Works planning and implementation in the participating States/ institutions and CFIs.

The manual also provides guidance on the various environmental aspects that need to be integrated into the design and construction of Civil Works under the Project. This will help in improving the over-all learning, working and living environment in the campus (for details refer Appendix-III).

**8.8 Employment of Consultants / Services:**

The Project Institutions for the specialised requirements can avail support and services of consultants to achieve institution's goal. The Procurement of Services under the Project will be carried out in accordance with the World Bank "Guidelines: Selection and Employment of Consultants by the World Bank Borrowers" May 2004 and revised October 2006 (Consultancy Guidelines) and the agreed procedures and limits described in the financing agreement. The World Bank Norms and Guidelines should be strictly followed under the Project to avoid penalties.

**8.9 Procurement Audits:**

The World Bank will appoint auditors to monitor the procurement activities periodically. Additionally, teams from NPIU and SPFUs will also visit the institutions to monitor the procurement activities undertaken in the Project.

Yearly self-audits are to be conducted at Institutional level by the SPFUs and Institutional officials for procurement activities, and reports on the findings are to be sent to the NPIU along with remedial actions taken to make improvement for the deviations noticed.

**Table-1 : 18 MONTHS PROCUREMENT PLAN FOR WORKS / GOODS\* FOR PROJECT**

Package No.	SL No.	Description of Works/ Goods	Estimated Cost (Rs)	Method of Procurement	Design/ Investigation completed/ Specification finalization (Date)	Estimate Sanctioned (Date and Value)	Preparation of Bid Document (Date)	Bank's No Objection to Bidding Document (Date)**	Bids		Contract Award (Date/ Value)	Date of completion of Contract
									Invitation (Date)	Opening (Date)		
1	2	3	4	5	6	7	8	9	10	11	12	13
1												
2												
3												

\* Goods covers Equipment, Furniture and Books & Learning Resources

\*\* Applicable in case of 'Prior Review' by Bank.

Note: For Column 5, state ICB/NCB/Direct Contracting/Shopping as appropriate

**Table-2 : 18 MONTHS PROCUREMENT PLAN FOR CONSULTANCY SERVICES FOR PROJECT**

SL No.	Description of Services	Estimated Cost (Rs)	Methods of Selection @	TOR Finalization (Date)	Advertisement (Date)	◆ RFP Final Draft to be forwarded to the Bank (Date)**	No Objection from Bank for RFP (Date)**	RFP Issued (Date)	Proposals Received (Date)	Evaluation (Date)	No Objection by the Bank (Date)**	Contract Value & Date of award	Contract Completion (Date)
1	2	3	4	5	6	7	8	9	10	11	12	13	14

◆ RFP (Request for Proposal): Same as 'Bid Document' #Technical and Financial

\*\* Applicable in case of 'Prior Review' by Bank

@ State whether (i) Single firm or individual; or (ii) Competitive. If Competitive, then state whether Quality and Cost Based Selection (QCBS) or Quality Based Selection (QBS)

## Section – IX

### EQUITY ACTION PLAN

#### 9.1 Objective:

To ensure that all students and faculty in the Project Institutions have equal opportunity to avail the benefits of the Project with substantial improvement in the performance of weak students.

#### 9.2 Scope:

All Project Institutions will be responsible to ensure adherence to the Equity Action Plan (EAP).

#### 9.3 Strategy:

NPIU and SPFUs will assess the efforts of Project Institutions in the implementation of the Equity Action Plan to ensure equity at all levels in the institutions under the Project. All institution should include Institutional EAP in their Institutional Development Proposals. The EAP should be the part of each institution's MoU with the concerned Project authorities.

#### 9.4 Activities on Equity Action Plan:

The following table gives the Equity Action Plan for the Project:

## TEQIP-II

S. No.	Items	Actions	Implementation Agency	Frequency	Monitoring Indicators
(i)	To identify weaknesses in all students and take remedial steps	Institutions to plan and execute bridge courses/remedial teaching (e.g. extra classes, tutorials) to bring all students to the required level of proficiency to cope with main courses	Project Institutions	Diagnostic tests and plans completed within first month of each academic year; remedial measures carried out continuously thereafter	Percent of students transiting from first to second year with all first year subjects passed
(ii)	Institution to improve communication-presentation skills through their wide use in curriculum and, where needed, to provide special skills training to students with priority to the weak students	To be decided by the Institution	Project Institutions	Continuous	Improvement in job placement of students, especially among those with disadvantaged backgrounds
(iii)	Give under-qualified teachers priority in opportunities to upgrade qualifications	Institutions to identify needs and indicate in their proposals how they would build equity into their plans to upgrade faculty qualifications	Project Institutions and SPFUs	Yearly	Increase in the percentage of teachers with M.Tech reported yearly

S. No.	Items	Actions	Implementation Agency	Frequency	Monitoring Indicators
(iv)	Training of teachers in subject matter and pedagogy	Training needs analysis (TNA) to be carried out for all teachers in all Project Institutions by appropriately qualified/ trained experts	Project Institutions and SPFUs	TNA to be done before the preparation of Institutional Development Proposals; reporting every six months.	Percent of planned training completed as reported/aggregated 6 monthly
		All Institutions to prepare Faculty Development Plan for the 4 year Project period (using identified providers for pedagogy or national training calendar for subject training), giving priority to the teachers with the most significant gaps in knowledge and skills as diagnosed by the TNA	Project Institutions and SPFUs		
		All teachers are to be covered by training in pedagogy	Project Institutions and SPFUs		
		Domain training are to be done on the basis of need	Project Institutions and SPFUs		
		Institutions to report to SPFUs on progress in training plan every 6 months (by name, department, individual characteristics (including SC/ST/OBC, M/F, age, years of service, level, degree qualifications), type and duration of training received, etc., and SPFUs to send aggregated reports to NPIU			
		Training providers to furnish pre- and post-training evaluation results (which indicate the extent to which the gaps in a trainee's knowledge or skills have been addressed) to institutions and SPFUs	Project Institutions and SPFUs		
		In addition the Project would carry out satisfaction surveys to assess training achievements	Project Institutions and SPFUs		

**TEQIP-II**

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<b>S. No.</b>	<b>Items</b>	<b>Actions</b>	<b>Implementation Agency</b>	<b>Frequency</b>	<b>Monitoring Indicators</b>
(v)	Make campuses physically and socially gender-friendly; esp. provide adequate and suitable facilities to women students and faculty	Institutions to specify in their proposals what actions they would take to ensure a gender-friendly campus-both 'soft' actions, and Civil Works where necessary	Project Institutions	At time of proposals and actions implemented as proposed	Institutions to provide descriptive reports of actions taken including number of beneficiaries
(vi)	Selection of State and Institutions from weak regions	Already discussed extensively and included in the selection process	MHRD/SPFUs/ NPIU	At the time of selection	
(vii)	Hold knowledge workshops yearly to improve knowledge sharing and information	SPFUs and Institutions to plan workshops and organize with thematic focus	SPFUs / Groups of Project Institutions	Yearly	

## Section – X

# ENVIRONMENT MANAGEMENT FRAMEWORK

### 10.1 Objective:

To ensure the compliance of Environment Management Framework (EMF) in the Project Institutions.

### 10.2 Scope:

Project Institutions will be responsible to ensure adherence to the Environment Management Framework (EMF).

### 10.3 Strategy:

NPIU and SPFUs will ensure the implementation of the Environment Management Framework (EMF) in all Project Institutions.

### 10.4 Environment Management Framework:

The EMF seeks to reduce environmental degradation that may arise due to the Project activities and would also help in compliance with various regulations and norms. It lays out various options/ measures for enhancing environmental performance during the planning, designing, implementation and operation stage of the proposed Civil Works.

The EMF will ensure safer and environmental friendly designing of the infrastructure as per applicable norms for water supply arrangements, sanitation arrangements, waste water discharge arrangements, with adoption of relevant code/s applicable for earthquake, cyclone, flood, landslides and as per the recommendations of National Disaster Management Authority (NDMA), etc. It will also ensure other arrangements/ facilities such as barrier free access for the physically challenged, signage inside and outside of the building, notice boards for display of information, fire and electrical safety arrangements, provision of alarms or hooters to alert building occupiers in case of emergency, clear demarcation of escape routes and assembly points for emergency situations, provision of parking, preservation of existing trees, to the extent possible, etc.

In addition, this policy will also encourage the Project institutions to adopt various environment augmentative measures like rain water harvesting, use of heat reflecting glass, promotion of energy efficient lighting, use of renewable energy, minimization of paved area, appropriate use of colors for buildings and walkways, use of locally available materials, etc for all works undertaken in the Project.

The EMF has been integrated and made a part of the “Civil Works Manual” prepared for the Project to ensure compliance with various environment management aspects (for details refer Appendix-III).

## Section – XI

### DISCLOSURE MANAGEMENT FRAMEWORK

**11.1 Objective:**

To ensure accountability and transparency in Project implementation and its achievements including those related to Fiduciary Aspects, Environmental Management Framework (EMF) and Equity Action Plan (EAP).

**11.2 Scope:**

NPIU, SPFU and the Project Institutions will be responsible to ensure adherence to Disclosure Management policies.

**11.3 Strategy:**

NPIU, SPFUs and Project Institutions will implement the Disclosure Management Framework under the Project to ensure high level of transparency and accountability. Information on Project progress in all areas such as academic, procurement, financial, EMF, EAP etc. will be made available to the public through website.

**11.4 Activities on Disclosure Management Framework:**

The following table gives in brief the mechanism on Disclosure Management policies of the Project:

**TEQIP-II**

<b>S. No.</b>	<b>Items</b>	<b>Actions</b>	<b>Implementation Agency</b>	<b>Frequency</b>	
1.	Procurement Management  Transparency and Accountability in Procurement in conformity to the World Bank guidelines	Procurement manual has been prepared for guidance of institutions. In addition, NPIU will organize workshops to train the Institutional and SPFU's officials	NPIU	Initially cover all States and all Institutions in a span of 3 months  Will conduct workshops once in 6 months	
		All data related to procurement, made by Institutions will be maintained through PMSS.	NPIU/SPFU/Project Institutions	Continuous	
		Making of the following information publicly available on the website of SPFUs/ Project Institutions/ NPIU:			
		(i) Information relating to physical and financial progress under each contract awarded on the basis of NCB procedures. Such information to be made available within 30 days from the end of each calendar quarter	Project Institutions/ SPFUs	To be implemented from Project effectiveness	
		(ii) All general and specific procurement notices, notices inviting tenders expressions of interest, request for proposals, NCB documents and agenda/corrigenda to bids.	Project Institutions/ SPFUs	To be implemented from Project effectiveness	
		(iii) All information on bids received, and details of contracts awarded for NCB	Project Institutions/ SPFUs	To be implemented from Project effectiveness	
		(iv) Project Review Reports and Mid Term Review Reports	NPIU/SPFU	After each Joint Review Mission	
2.	Complaint Mechanism	Handling complaints relating to procurement, fraud and corruption and quality of construction in accordance with GoI and participating States administrative procedures	NPIU/SPFU/ Project Institutions	To be implemented from Project effectiveness	
		A procurement complaints monitoring database shall be maintained	NPIU/SPFUs/ Project Institutions	To be implemented from project effectiveness	

		Submitting yearly reports to the World Bank	SPFUs/NPIU	Within 30 days of the end of the year
3.	Financial Management  Progress in use of Funds and submission of timely reports for monitoring, facilitation and accounting purposes	NPIU will organize workshops to train the officials. Financial Management Manual has been prepared for guidance of the SPFU/Institutions	NPIU	Initially cover all States and all Institutions in span of 3 months.  Will conduct workshops once in 6 months
		Quarterly Financial Management Reports to be submitted by State/ Institution	Project Institution/ SPFUs/ NPIU	Quarterly
		Yearly Audit Certificates to be submitted by the State/ Institution		Yearly
4.	Selection of State, Institutions, and monitoring the implementation of Project	The minutes of all NSC meetings on selection and other matters, summary of evaluation reports of all institutions and all details regarding the Project including all announcements / documents etc. will be published on NPIU website. The minutes of State Steering Committee meetings will also be published on the SPFU's website.	NPIU	As and when occurs
5.	Accountability on Project achievements	Performance Audit To assess performance of Institution by auditors	SPFUs/ NPIU	Twice annually
		To assess progress made at SPFU and Institutional level. The following documents would be put on Institutional/ SPFU website:  a) Performance Audit b) Student/Faculty satisfactory surveys c) Employer satisfactory survey d) Minutes of the BoGs meetings at the Institution	Project Institution/SPFUs/ NPIU	As and when occurs

## TEQIP-II

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6.	<p>Environmental Management Framework (EMF)</p> <p>To create awareness among Institutions to take actions related to Environment Management.</p>	<p>Ensuring compliance with requirements of EMF in Civil Works undertaken in the Institution.</p>	<p>Project Institutions/ SPFUs</p>	<p>To be implemented from project effectiveness</p>
7.	<p>Equity Action Plan</p> <p>To ensure that all students and faculty have equal opportunity to avail the benefits of the Project and improve performance of weak students.</p>	<p>Ensuring compliance with requirements of EAP in the Project Institution.</p>	<p>Project Institutions/ SPFUs</p>	<p>To be implemented from Project effectiveness</p>

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# **ANNEXES**

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## GUIDELINES ON IMPLEMENTATION OF REFORMS

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### 1. Exercise of autonomies:

Affiliated Colleges have to be given autonomous college status for the purposes of this Project. Autonomous Colleges under a University shall exercise full academic autonomy except for the award of degrees, which are conferred by the University. All institutions are required to have a Board of Governors. All powers pertaining to meet the objectives of the Institution will be vested in the BoG subject to the Government/Legal Regulations and as per the Memorandum of Association / Government Orders/ Government Regulations.

Brief description on autonomies is as follows:

#### (i) Managerial Autonomy:

- (a) Powers for Institutional management through exercising each of the 4 autonomies is to be vested in the BoG (subject to Government Rules/Regulations and as per terms of MoA), which in turn will suitably delegate these to various committees/ functionaries.

The BoG will:

- delegate suitable Academic, Financial and Administrative Powers to various Institutional functionaries to streamline the running of the Institution. The BoG will frame Rules for accountability at each level.
  - form Committees, Sub-committees or Advisory Committees in appropriate areas to support functioning of the BoG. The BoG may empower the Director to do so.
  - have Financial Autonomy with regard to preparation, sanctioning and spending the budget to achieve the objectives of the Institution.
  - have the powers to appropriate the funds and to re-appropriate the same under certain circumstances.
  - evolve proper set of Rules and Regulations for exercise of its powers as per the MoA/Govt Orders.
  - delegate the Financial Powers to various levels of functionaries for efficient functioning.
  - delegate power to the faculty concerned for operating the R&D Projects, consultancies, CEP, conferences/seminars etc.
  - evolve norms for operating the four Funds and operating recurring expenditure.
- (b) All academic, administrative, financial procedures and decisions should be transparent and care should be taken to involve maximum participation of stakeholders viz. faculty, staff, students, parents of students, industry etc. in the decision making process.

#### (ii) Administrative Autonomy:

- All actions of the Director in connection with Continuing Education Programmes, faculty consultancy, and faculty development programmes, industrial consultancy programmes, approval of seminars and conferences should be reported to BoG.

- On the recommendation of the Head of the Department, the Director will approve the deputation of faculty to attend seminars, conferences, and industrial training programmes. BoG shall evolve the norms for the same.
- It is suggested that Directors may delegate some of his/her powers to the Deans, Heads of Department and Professors as the case may be.

**(iii) Financial Autonomy:**

- For day-to-day functioning adequate financial powers to the Director and other functionaries are to be delegated by the BoG. The suggested minimum financial powers to be delegated are as under:
  - Director/Principal/Dean (In case of University colleges)-Rs. 50.00 lac for single purchase order
  - Head of the Department or equivalent: Rs.1.00 lac for single purchase order
  - All expenditure above Rs. 50.00 Lac would need to be approved by the BoG. Similarly all expenditure above Rs.1.00 lac by the Head of the Department shall be approved by the Director
- Re-appropriation upto 10% of the sanctioned Budget Heads within the Budgeted amount may be done by the Director with concurrence of the Finance Committee.
- Re-appropriation above 10% in the Budget Heads has to be taken to the Finance Committee and BoG for approval.

**(iv) Academic Autonomy:**

The Project Institutions are required to possess / obtain academic autonomy and carry out all the functions listed below:

S. No.	Parameters / functions
1	Admission of students based on merit as per State Policy on common entrance examination, counselling, and reservation
2	Determine own curricula, course content, curricula implementation and methods of training
3	Develop credit based curriculum
4	Permit credit exemption for previous attainments
5	Introduce flexibility in the curriculum with choice of electives
6	Evolve new methods of summative evaluation and their frequency, conducting examinations and declaring results
7	Develop new methods of formative and internal evaluation as per advice from experts
8	Add value addition courses as per market demand
9	Develop an effective system for faculty evaluation by students.
10	Start new courses, new programmes and re-orient and restructure or delete existing programmes
11	Introduce innovations in teaching/learning processes through controlled experimentation
12	Freedom to run Continuing Education, distance learning and e-learning and skill enhancement programmes as per market needs
13	Enter into collaborative arrangements with outside bodies /experts for curricula development, employment oriented value addition courses, new teaching learning methodologies and innovations
14	Power to depute faculty for academic advancement
15	Develop faculty training needs assessment scheme in line with academic requirements and institutional objectives
16	Inviting Experts including industry for special lectures

## 2. Governance system with participation of stake-holders:

Stakeholders in Technical Education institutions are : students and their parents, faculty, staff, employers, community leaders, government, quality assurance bodies, University, Industry etc. It may not be possible to include all stakeholders in the governance of an Institution but mechanism should be evolved for interacting with those who find no direct representation in the governance system.

It is suggested that the following Committees may be formed for governance of Institutions:

**Board of Governors (BoG):** The BoG is to be constituted with the relevant structure according to UGC guidelines as given in Annex-II. Minor adjustment in number of Board members & composition can be made. However, the Chairman of BoG must be an educationist, industrialist, or professional from outside the government. **The BoG should meet at least four times in a year.**

The BoG will carry out the following functions:

- Fix the fees and other charges payable by the students on the recommendations of the Finance Committee.
- Institution scholarships, fellowships, studentships, medals, prizes and certificates on the recommendations of the Academic Council.
- Approve starting of new programmes of study leading to degrees / diplomas.
- Determine pay packages to attract and retain quality faculty and staff.
- Perform such other functions and Institution committees, as may be necessary and deemed fit for the proper development, and fulfilment of the objectives for which the institution has been declared as autonomous.
- Assessment of justification / necessity of foreign travel by faculty.

The BoG may constitute following Committees for taking decisions on its behalf.

1. **Academic Council/Committee** : As per Act / MoA
2. **Finance Committee** : As per Act / MoA  
(These two Committees will have representatives of faculty as its members)
3. **Building and Works Committee**
4. **Purchase Committee**
5. **Disciplinary Committee**
6. **Institution Development Committee**
7. **Students Affairs Committee**
8. **Library Committee**
9. **Grievance Committee**
10. **Anti Sexual Harassment Committee (ASH)**
11. **Any other Advisory Committees (as per need)**

The Committees at 3,4,5,6,7,8,9,10 can be formed by the Director with approval of the BoG. These Committees will consist of representatives of stakeholders, functionaries of the University including students in some of the Committees where their presence is required.

**The Director should ensure that opinion of all stakeholders on the issues related to Institution governance is available to the BoG / management through their representation in concerned committee.**

Proper formulation and functioning of these Committees would lead to transparent, congenial, fair and participative management based on mutual trust.

- 3. Use of Block Grant:** Block Grant for at least the non-salary non-plan grant to institutions is an eligibility condition to be complied with by all States for participation in the Project.

The BoG will:

- Allocate/reallocate the block grant to expenditure categories except “Salaries” in the best interest of the Institution.
- Take fiscal decisions for better financial management of the Institution based on broad guidelines agreed with the State Government.
- Special grants shall be provided by States as ‘force majeure’ in the event of revision of scales of pay and other unforeseen events.

#### 4. Establishment of four Funds:

- **Creation and establishment of Four Funds is an eligibility condition to be complied with by all Institutions:**
- **Separate Bank Account has to be opened for each of the Four Funds namely;**
  - I. Corpus Fund
  - II. Faculty Development Fund
  - III. Equipment Replacement Fund
  - IV. Maintenance Fund

The purpose of these funds is to ensure sustainability of the reform process beyond the Project period. The funds have to be created as given below. Sources could be a definite percentage of fee collection from students, savings from block grant, donations from alumni and charitable organizations, IRG including commercial use of facilities, consultancy earnings (Institution share), and matching grants from Government/management on IRG etc.

**These funds should not be used during the Project period as funds for various activities are available under the Project.**

- The authority for opening these accounts will be with the BoG of the institution.
- Each Project Institution is to build these funds with annual contribution into each fund equal to at least 0.5% (total 2%) of annual total recurring expenditure of the institution.
- Each institution may additionally contribute from annual savings to the Corpus Fund.

## 5. Revenue Generation:

1. In order that faculty and staff feel encouraged to develop and take up revenue raising activities and programmes over and above their routine academic and other duties in the institution, they should be given an appropriate share of the revenue earned as an incentive.
2. The department/college/institution should recognize performance faculty and staff in such activities through awards, rewards or promotions.
3. The concerned persons should be given due freedom to utilize part of the earnings to develop office and laboratory facilities, purchase of literature and attendance at conferences.
4. Revenue generation activities could include:
  - Consultancy Projects sponsored by private or public sector industry
  - Sponsored research Projects
  - Offering specially tailored Continuing Education programmes
  - Offering specially designed degree programmes for candidates from public sector undertakings
  - Industry-Institute interactive programmes ensuring mutual benefits including revenue generation for the institution
  - Commercial activities e.g. commercial use of facilities, earning from Incubation Centres and Scientific and Technology Entrepreneurship Programmes (STEP).
5. Improving facilities for personal academic research and travel for attending conferences could be permitted from the sponsored project funds as per rules of the sponsoring organisation.

## 6. Filling up Faculty and Staff Vacancies:

Vacancies must be filled subject to any rationalization of cadre necessitated by student increase/decrease, and curricula compulsions as per AICTE norms. Ban on filling vacancies, if any, needs to be lifted by the concerned Government / Management. Till such time regular appointments are made by the concerned Government / management, BoGs need to be empowered to appoint faculty and staff with the required qualifications and experience on contract basis for 11 months or longer terms.

- Re-assess and rationalise the requirement of the total faculty (including Physics, Chemistry and Mathematics) by following the norms of AICTE.
- The faculty to student ratio recommended by AICTE is 1:15. This requirement is **Mandatory** and has to be followed by all institutions under TEQIP. It is suggested that an attempt should be made to have a preferred ratio of 1:10 for UG programme. For the Post Graduate courses the recommended ratio of faculty to student is 1:10 but preferably it should be 1:8.
- The posts equivalent to faculty is not to be considered for the calculation of faculty student ratio.

## 7. Student Performance Evaluation:

Student Performance Evaluation is generally of two types: summative and formative. The summative ones carry marks/grades and lead to the student's final performance grading, while the formative ones are used to encourage the student to do better by pointing out their weakness / mistakes and advising them how to perform better. Such evaluations are instrumental in real learning promotion since these are not used for grading purposes although grades/marks are given to keep track of improvement in performance. To make the summative evaluation robust and reliable, a number of tests must be taken as one annual or semester examination may not give reliable evaluation.

### Salient Points :

- Student performance up-gradation is the basic goal for any good Institution
- The present practice of merely evaluating is not sufficient. It is basically inspection focused. The Quality emphasis must inspire a marked improvement-focused approach.
- Thus a new process must be evolved with this focus in mind. This may be adapted to bring about improvement-focused reform.
- Students and faculty will benefit largely from this reformation of student evaluation process. It must be re-designed to improve formative inputs as well. The faculty may decide to lead by example by giving examples of how to answer some mock tests.
- The examples of using formative approach are giving mock tests, mock assignments, mock quizzes, mock presentations, etc. Note that these are not meant for student evaluation for grading. These are to be used for identifying the areas for improvement.
- The faculty may identify improvement directions through formative efforts and then counsel the students as to how they may improve their performance.
- While summative evaluation involves marks and/or grade assessment (present practice), the formative ones must be used to encourage the students to perform better.
- The formative evaluation must be used to help the students to improve their performance by pointing out the areas of potential improvement, related to various deficiencies and weaknesses identified by the faculty in various forms of tests/assessments.
- Such formative evaluations are useful in real learning promotion, as it is not used for grading purposes. A brainstorming by faculty with students can help to identify various formative options that may add significant value addition. It should be made amply clear to the students that formative tests are for improvement only.
- A combination of formative and summative (grading/marks) will help to keep track of improvement in performance. The faculty and students need to self-assess how the formative inputs are beneficial.
- For a reliable and robust evaluation process a number of summative tests must be taken (> 3 suggested) during each semester.
- Transparency, fairness, consistency and accountability in grading must be ensured. The aggrieved student may be allowed to see the evaluation.
- Tests may include open book, surprise test, mock test, closed book, oral, take-home, group test, assignments, tutorials, etc. Proper emphasis to group work must be promoted.

- The tests must have components like fundamentals of academics, industry relevant problems and innovative questionnaire/creativity development challenges. More the variety of tests, the greater will be the robustness of evaluation.
- Weak students should be given every opportunity to improve. This will develop a greater respect for the Institution by the students.
- Many a times the student does not have an idea of how he/she can perform better, though he/she possesses the knowledge. The formative approach will help achieve this.
- As an education system, the aim is to improve the quality product from the institution. So, a combination of summative and formative tests to judge various attributes of students is very important.

### Steps

- Organize regular workshops for the faculty, to sensitize them towards Total Quality Management as applied to Education. It is important to change the conventional mindset from inspection to a quality improvement mindset. Performance evaluation is both summative (measure) and formative (improve).
- There should be some summative and many (greater variety of) formative evaluations. The variety may include identifying how students approach various types of problems (quantitative, qualitative, logical reasoning, etc). Even the presentation approach may be tested. Then the faculty may identify how to improve these based on student performance.
- Set new goals for a fair, consistent, transparent and accountable evaluation. Evaluation of students' performance should be disclosed to the students.
- Ensure, at least three summative evaluations in a semester. Starting one at 4 weeks followed by a mid-semester evaluation. These are for the purpose of mid-semester corrections and also in identifying critically where the faculty/students need more improvement in the teaching/learning process.
- Facilitate faculty efforts to help students to improve their performance through improved knowledge and by better presentations.
- Develop modus operandi for various types of assessments including open book tests / closed book tests /take home tests / assignment / tutorial / group work test /oral presentation, etc. Brainstorming with students will give more inputs.
- The evaluation must test not only the fundamentals taught but also the innovative skills of the students. Promote a healthy culture for dealing with some challenging and industry relevant problems.
- Identify mistakes and achievement of desired levels of performance. Develop a detailed academic improvement plan. This can be made mandatory in case of weak students. Their performance improvement must be closely monitored.
- Set a process of monitoring the improvement in the performance of all students. A self-assessment by the faculty and the resulting counselling sessions with academically weak students must be encouraged.

**Benefits:**

- Improvement in students' knowledge, abilities and competencies.
- Improvement in students' self- directed learning and innovative thinking.
- **Weak students will get adequate guidance and opportunity to improve.**
- **Academics will be closely related to industrial relevance and will prepare students in solving challenging semi-structured problems (industry cases etc).**
- Standardization of the evaluation improvement processes.
- Development of a knowledge base for improvement and its documentation for future use. Interim change in faculty will have minimal effect in the performance.
- **A quality improvement focused education system will thus evolve.**

## 8. Performance appraisal of faculty by students and faculty counselling:

This is a very useful tool in improving teaching effectiveness. The purpose of this evaluation should be clearly understood. The main purpose should be to help a faculty to improve his/her teaching/learning management skills. Both the assessment by students and the counselling followed by such assessment are to help a faculty recognize his/her weakness and remedy them to improve the learning of students. There are various variations of the frequency of such assessments. Weaknesses in delivery, lack of interactivity, emphasis on self-learning and choice of assignments can all be remedied if the assessment is done during the early part of the course, say after 10 lectures. An exit assessment taken at the end of the course gives an insight to the total effectiveness of the course and the learning achievement and deficiencies. This assessment is useful both for the faculty who is going to take the next level of the course with the same batch of students (to ascertain the level of knowledge and skills gained in the prerequisite course) and the faculty who delivered the course to rectify his/her shortcomings for the next batch of students taking the same course (by noting what portions require more emphasis, what additional knowledge skills and applications to be included). A combination of an initial assessment and an exit assessment along with a mid-term assessment would be the ideal solution as this would allow self-correction by the faculty as the course progresses and would enhance teaching /learning effectiveness.

Faculty must be taken into confidence for these assessments and the instruments so designed as to eliminate casual, bogus or faulty assessment. The faculty should share the results of the assessment only with his/her Head of Department. Some Institutions publish the assessment to reward good teaching in form of best faculty awards, etc. Faculty is always apprehensive that these assessments could affect their promotion or vertical mobility. They must be assured that this is not the purpose and in any case since promotion opportunities occur only in five years, counselling would have improved the assessment grading of even the poorest faculty over this period.

- This is a very useful tool in improving teaching effectiveness. It is important to re-emphasize, that the basic purpose is to help the faculty improve without feeling threatened about job loss or promotion, etc.
- Preferably there must be three stages for faculty evaluation- 1. Early (by 1 month), 2. Mid-Course (by 2-3 months) and 3. Final (by End of Course).
- The first two should be utilized for mid-course corrections to help faculty to become more effective.
- The final assessment is aimed at both assessing the improvements as well as collecting feedback that may be useful for future delivery of the course by the faculty.
- Faculty must be taken into confidence during each assessment and the benefits to the faculty/ student and the improvement in quality of education should be well explained.
- Process must be designed for effective data collection for faculty evaluation.
- Each faculty must be motivated for regular self assessment. This will give the faculty a clear perspective of what is expected and in what priority for providing quality education.
- Student feedback and self assessment must be shared only with HoD (for purely facilitative purposes and towards improvements).
- The Institution Management must ensure that its purpose is to help in self-improvement and not promotion/incentives, etc.

- The HoD may appoint a suitable counsellor (e.g. some one senior enough/ highly respectful with good teaching qualities) to help the faculty.
- Improvement in teaching may be monitored and results shared with the faculty.

#### **Steps:**

- Develop Forms for student feedback regarding the assessment of a faculty on a course. Some benchmarks of IIT system feedback Forms may be suitably adapted to individual contexts.
- Similarly develop the faculty self-assessment Forms. This should have important teaching parameters including use of teaching aids, development of course file, accessibility of faculty, summary of formative work done by him, syllabus covered, beyond syllabus efforts, types of tests given, man-days devoted to formative efforts, etc.
- Promote faculty self-assessment and facilitate faculty's self-improvement efforts. This may need sharing of improvement areas, joining special courses, etc. But never use negative methods to pressurize faculty. The focus must remain self-improvement. So approach must be motivational and constructive.
- Plan to collect the comprehensive students' feedback for faculty evaluation (at least three times per semester):
  - Early (by 1 month) i.e. macro level feedback on the basis of knowledge, skills, attitude and values.
  - Mid-Course (by 2-3 months) detailed feedback on the basis of total effectiveness of the course contents, delivery and teaching-learning process. Student suggestions may help in mid-semester corrections.
  - Final (by End of Course) detailed feedback regarding achievement of objectives, knowledge skills and applications further needed.
- Counselling recommendation on the basis of class performance of students and their feedback. The management skills and participation in other Institutional activities must also be taken into account. These inputs are not for promotion, etc. Ensure that the assessment is for the purpose of improvement and not for promotions / increments, etc.
- Student feedback and self-assessment must be shared with HoD.
- Assessment of achievement and deficiency, if any must be counselled by HoD. It may be useful to nominate a respectful and widely acceptable faculty as a counsellor. Further the counsellor should be enough senior to the faculty concerned.

#### **Benefits:**

Information through this concept can be used to:

- Help faculty to improve either by themselves or through proper counsellors
- Improve the quality of the teaching-learning process and its effectiveness
- Help to improve the course content, industrial relevance and instructional delivery
- Help continuous improvement in teaching quality and learning objectives
- Help to improve the performance of students and the quality of teaching
- Continually motivate faculty for greater quality and encourage them to do better. This will ensure a proper mix of proficiency and efficiency in the quality of instruction offered to students.

## 9. Faculty incentive for Continuing Education, Consultancy, Research & Development etc.:

All faculty should be encouraged to participate in organizing and/or attending Continuing Education (CE) programmes, to offer consultancy to industry and to take part in research & development (R&D) activities in the Institution. The Institution should prepare at the beginning of every semester a faculty engagement chart which should indicate not only the faculty's teaching commitments, but also his/her expected involvement in administration, Continuing Education, network activities, research and development activities including curriculum and laboratory development, consultancy and services to community and economy. At the beginning of the next semester, every faculty should fill in the Faculty Achievement Chart the undertaken activities, which would indicate the actual hours spent in these activities in the previous semester including the vacation period (if used for some of these activities). The reasons for over or under achievement from planned hours should be explained. He/She should also indicate his/her achievements during the period e.g. publications, recognition and awards, patents, invited lectures, participation in national policy making bodies, student assessment grading, consultancy earnings, etc.

### Highlights:

- Faculty should take active interest in organizing and/or attending CE programmes. The institution must facilitate such positive efforts.
- Promote resource generation and knowledge dissemination activities, and the benefits must be shared with other faculty.
- Facilitate better working conditions and promote critical and innovative thinking initiatives. Develop a culture for improved earning through value added efforts for running State of art education programmes in new areas/fields.
- Institutional efforts for consulting to industry and involvement in R&D should be adequately encouraged.
- The emphasis should be laid on motivating faculty for these activities.
- A balance has to be maintained between a faculty's teaching commitments and his/her involvement in administration, CE, networking, R&D activities, etc.
- Active involvement in each of these activities can be measured by the number of hours spent on these tasks in a semester.
- Due recognition for involvement in these activities must be given to the faculty. Both monetary and non-monetary awards must be given for significant contributions.

### Steps:

- Identify academic and career progression needs of the faculty.
- Management should become a facilitator to the faculty's career growth and in supporting various CE, consultancy, R&D activities, etc.
- Motivate faculty for CE. Full Institutional support must be extended for attending conferences, workshops, seminars, etc outside India. The CE programmes within the campus or within India can be 1 or 2 in a two year timeframe. A budget may be set aside for this every year.
- Faculty motivation for consultancy (industry problem solving) must be encouraged. This should include Institutional as well as individual effort through higher benefit sharing. Similarly the CE programmes coordinated by faculty must be given due weightage. The benefits must be adequately shared with each faculty.

- Motivate faculty for R&D by providing books and journal allowance. Encourage and support faculty for obtaining higher qualifications such as PhD. Faculty may be rewarded for publishing quality papers in journals of high repute.
- Facilitate an increased research interaction in the network for acquiring wider benefits.
- Systematic assessment of faculty teaching commitments and his/her expected involvement in administration, Continuing Education, network activities, etc., should be carried out.
- Each faculty should be required to submit a self assessment chart every semester. A plan for various activities, goals, objectives during each year may also be encouraged.
- Motivate the development of quality improvement proposals and support these wherever feasible. Promote innovation and industry relevant enrichments in the academic programmes. Also facilitate the professional career growth of faculty.
- Bestow awards and merit to the deserving faculty for excellent overall performance.

**Benefits:**

- Greater opportunities for academic and professional growth for deserving faculty.
- Faculty can earn more and create more value for community and industry.
- Better academic reputation and ranking of the institution. All stakeholders will benefit adequately.
- Increase in innovation potential (R&D) and industrial relevance (Consultancy, CE etc.) to improve the value/quality of academics. This will result in immense benefits for students also.
- Job enrichment and opportunities to create more value will act as an additional incentive to attract best faculty in the increasingly competitive market.

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## UNIVERSITY GRANTS COMMISSION (UGC) GUIDELINES FOR SCHEMES OF AUTONOMOUS COLLEGES

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### 1. Objective:

The National Policy on Education (1986-92) formulated the following objectives for autonomous colleges. An autonomous college will have the freedom to:

- Determine and prescribe its own courses of study and syllabi, and restructure and redesign the courses to suit local needs; and
- Prescribe rules for admission in consonance with the reservation policy of the State Government;
- Evolve methods of assessment of students' performance, the conduct of examinations and notifications of results;
- Use modern tools of educational technology to achieve higher standards and greater creativity; and promote healthy practices such as community service, extension activities, Project for the benefit of the society at large, neighborhood programmes, etc.

### 2. Relationship with the parent University, the State Government and other educational institutions:

Autonomous colleges are free to make use of the expertise of University departments and other institutions to frame their curricula, devise methods of teaching, examination and evaluation. They can recruit their faculty according to the existing procedures (for Private and Government colleges).

The parent University will accept the methodologies of teaching, examination, evaluation and the course curriculum of its autonomous colleges. It will also help the colleges to develop their academic programmes, improve the faculty and to provide necessary guidance by participating in the deliberations of the different bodies of the colleges.

The role of the parent University will be:

- To bring more autonomous colleges under its fold;
- To promote academic freedom in autonomous colleges by encouraging introduction of innovative academic programmes;
- To facilitate new courses of study, subject to the required minimum number of hours, instruction content and standards;
- To permit them to issue their own provisional, migration and other certificates;
- To do everything possible to foster the spirit of autonomy;
- To ensure that degrees / diplomas / certificates issued indicate the name of the college;
- To depute various nominees of the University to serve in various committees of the autonomous colleges and get the feedback on their functioning; and
- To create separate wings wherever necessary to facilitate the smooth working of the autonomous colleges.

The State Government will assist the autonomous colleges by:

- Avoiding, as far as possible, transfer of faculty, especially in colleges where academic innovation and reforms are in progress, except for need based transfers;
- Conveying its concurrence for the extension of autonomy of any college to the Commission within the stipulated time of 90 days after receipt of the Review Committee report, failing which it will be construed that the State Government has no objection to the college continuing to be autonomous; and
- Deputing nominees on time to the governing body of government colleges and other bodies wherever their nominees are to be included.

### **3. Requirement:**

The parent University will confer the status of autonomy upon a college that is permanently affiliated, with the concurrence of the State Government and the University Grants Commission.

The Act and Statutes of the University may need to be amended to provide for the grant of autonomy of affiliated colleges.

Before granting autonomy, the University will ensure that the management structure of the applicant college is adequately participatory and provides ample opportunities for academicians to make a creative contribution.

### **4. Procedure for Approval by the UGC:**

The approval for the grant of autonomous status will be done in two stages. At stage-I, a Screening Committee will be constituted by the UGC. The composition of the Committee will be as follows :

- (a) Three to five experts nominated by the UGC (one of the experts will be nominated as Convener)
- (b) Secretary of Higher Education or his/her nominee
- (c) Chairman, State Council for Higher Education or his / her nominee
- (d) Director of Collegiate Education or his / her nominee
- (e) Vice-Chancellor or his / her nominee
- (f) Joint Secretary (Autonomous Colleges), Member Secretary

The Convener will chair the Committee. The cases of short-listed colleges shall be sent to the State Government for approval, wherever required. If no response is received from the State Government within a period of six weeks, it will be assumed that it has no objection to the proposal.

At Stage-II, short listed colleges will be visited by another Expert Committee constituted by the UGC. The Committee will submit its report with its findings and recommendations to the UGC. Thereafter, the UGC may send its recommendation to the University concerned for conferment of autonomy.

The University will notify the colleges concerned. Autonomy will be conferred initially for a period of six years.

5. UGC guidelines for composition and functions of Board of Governing Body:

(i) Constitution of Governing Body of Government Funded / Aided Autonomous College

Number	Category	Nature
3 members, one of them to be chairperson	Educationist, industrialist, professional	Nominated by the State Government. Persons of proven academic interest with at least PG level qualification
2 members	Faculty of the College	Nominated by the Principal, based on seniority
1 member	Educationist or industrialist	Nominated by the Principal, based on seniority for two years
1 member	UGC nominee	Nominated by the UGC
1 member	State Government nominee	Nominated by the State Government
1 member	University nominee	Nominated by the University
1 member	Principal of college	Ex-officio

(ii) Constitution of Governing Body of Private Unaided Autonomous College

Number	Category	Nature
5 members	Management	Trust or management as per the constitution or byelaws, with the Chairman or President / Director as the Chairperson.
2 members	Faculty of the College	Nominated by the Principal, based on seniority
1 member	Educationist or industrialist	Nominated by the Management
1 member	UGC nominee	Nominated by the UGC
1 member	State Government nominee	Academician not below the rank of Professor or State Government official of Directorate of Higher Education / State Council of Higher Education
1 member	University nominee	Nominated by the University
1 member	Principal of college	Ex-officio

(iii) Constitution of Governing Body of University Constituent Autonomous Institution

Number	Category	Nature
3 members, one of them to be chairperson	Educationist, industrialist, professional	Nominated by the University, persons of proven academic interest with at least PG level qualification
2 members	Faculty of the College	Nominated by the Principal, based on seniority
1 member	State Government nominee	Nominated by the State Government
1 member	University nominee	Nominated by the UGC
1 member	State Government nominee	Nominated by the State Government
1 member	Principal of college	Ex-officio

**Term** : Two years, except for the UGC nominee whose term will be a full six years.

**Functions:**

Subject to the existing provision in the bye-laws of respective college and rules laid down by the State Government, the Governing Body\* of the above colleges shall have powers to:

- Fix the fees and other charges payable by the students of the college on the recommendations of the Finance Committee.
- Institution scholarships, fellowships, studentships, medals, prizes and certificates on the recommendations of the Academic Council.
- Approve institution of new programmes of study leading to degrees and / or diplomas.
- Perform such other functions and Institution Committees, as may be necessary and deemed fit for the proper development, and fulfill the objectives for which the college has been declared as autonomous.

**\*Governing Body / Governing Board / Board of Management / Executive Committee / Management Committee, as may be named.**

**MEMORANDUM OF UNDERSTANDING  
BETWEEN  
MINISTRY OF HUMAN RESOURCE DEVELOPMENT (MHRD)  
GOVERNMENT OF INDIA  
AND  
(THE STATE OF \_\_\_\_\_)  
FOR IMPLEMENTATION OF PROJECT (TEQIP-II) UNDER  
TECHNICAL EDUCATION QUALITY IMPROVEMENT PROGRAMME**

THIS MEMORANDUM OF UNDERSTANDING is made on this \_\_\_\_ day of \_\_\_\_\_ 2010 between \_\_\_\_\_ the President of India acting through Shri \_\_\_\_\_ Education Secretary/ Additional Secretary, Ministry of Human Resource Development (MHRD), Government of India (hereinafter called the 'THE FIRST PARTY') and the Governor/Administrator of the State/UT of (name of the State) through Shri \_\_\_\_\_, Secretary, State of \_\_\_\_\_ (hereinafter called the 'THE SECOND PARTY').

WHEREAS it has been the concern of the 'THE FIRST PARTY' to scale up and support ongoing efforts to improve quality of technical education and enhance existing capacities of the institutions to become dynamic, demand-driven, quality conscious, efficient and forward looking, responsive to rapid economic and technological developments occurring both at National and International levels. Accordingly, the Government of India launched a Technical Education Quality Improvement Programme (TEQIP) as a long term programme of 10-12 years duration to be implemented in three phases. The first phase of the Technical Education Quality Improvement Programme (TEQIP) commenced in March 2003 and ended in March 2009. In continuation, the second phase of the TEQIP is now planned as Project TEQIP-II.

- AND WHEREAS in pursuance of this concern, the project objectives are:
  - Strengthening Institutions to produce high quality engineers for better employability
  - Scaling-up PG education and Demand-Driven Research & Development and Innovation
  - Establishing Centers of Excellence for focused applicable research
  - Training of faculty for effective Teaching
  - Enhancing Institutional and System Management effectiveness
- AND WHEREAS the comprehensive description and operating conditions for the Project are contained in the document entitled the Project Implementation Plan (hereinafter called 'THE PIP').

THE PARTIES AGREE AS FOLLOWS:

**SECTION A:**

As conditions for participation in 'THE PROJECT', 'THE SECOND PARTY' agrees to:

- establish the State Project Facilitation Unit (hereinafter called 'THE SPFU') in the Department of State Government responsible for Technical Education / State Directorate of Technical Education, Headed by Director of Technical Education or the equivalent officer responsible for Technical Education in that department. He/She will be assisted by an academician in Technical Education with adequate staff to facilitate implementation and supervision of the Project activities, in the State with 4 Units, namely Academic Unit, Procurement Unit, Financial Management Unit, and Monitoring & Evaluation Unit [States with less than 5 Project Institutions to establish two number of Units namely: (a) Academic and M&E Unit, and (b) Procurement and Financial Management Unit] and sustain it with continuity throughout the Project period. The SPFU will supervise the Project in the State Project Institutions and will facilitate its supervision by 'THE FIRST PARTY' and the World Bank.

- establish State Evaluation Committee and any other relevant Committee as and when necessary.
- establish a 9-10 member State Steering Committee (SSC), with the composition as below:
  - Principal Secretary/ Secretary responsible for Higher Technical Education, as the Chairperson;
  - Financial Controller of the State Department concerned with Higher Technical Education in the State/UT or his/her nominee;
  - Director, Department of Higher Education, MHRD or his/her nominee
  - Two industry members, nominated by major industry Associations;
  - Three members having recognized expertise and interest in engineering education, nominated by the State Government;
  - One nominee of the State Private Sector Advisory Group (S-PSAG)<sup>1</sup>;
  - Director for Technical Education in the State (Head of the State Project Facilitation Unit (SPFU)), as the Member-Secretary.
- follow the project guidelines and procedures prescribed in the PIP and as may be prescribed from time to time by the Government of India for implementation of the Project in pursuance of the obligations set forth or referred to in the Financing Agreement dated ---- between IDA and Government of India.
- follow the procedures for Procurement of all Goods, Works and Services in accordance with the World Bank Guidelines: Procurement under IBRD Loans and IDA Credits May 2004 and revised October 2006 (Procurement Guidelines); and Guidelines: Selection and Employment of Consultants by World Bank Borrowers May 2004 and revised October 2006 (Consultancy Guidelines) and the agreed procedures and limits described in the Legal agreement.
- establish a State Private Sector Advisory Group in the State (optional).
- comply with the following:
  - to issue orders to Project Institutions to seek and obtain autonomous status as per the UGC norms and procedures.
  - to continue the funding to Project Institutions beyond the second year of the Project subject to their obtaining the autonomous status (applicable to new institutions from old States).
  - to adopt a Block Grant pattern for fund releases of at least the non-salary non-Plan component of grants to the Project Institutions.
  - to permit Project Institutions to retain and utilize the revenue generated, including 100% of tuition and other fee and charges from students without adjusting the revenue retained in their non-Plan grants.
  - to direct the Project Institutions to establish 4 funds each in a separate Bank account, namely the Corpus Fund, Faculty Development Fund, Equipment Replacement Fund and Maintenance Fund (for maintenance of buildings and equipment).
  - to direct each Project Institution to build these funds with annual contribution into each fund equal to at least 0.5% (total 2%) of annual recurring expenditure of the institution.

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<sup>1</sup> Formation of S-PSAG is optional for a State. If the S-PSAG is constituted for a State, then only the nomination from S-PSAG will be there in the SSC.

- to direct each Institution to additionally contribute the amount of annual savings into the Corpus Fund; and to issue guidelines for proper management of these funds after closure of this Project.
  - to authorize each Project Institution to fill up the faculty vacancies (over and above the benchmark value) to 100% on 11 month or longer contracts till such time that these vacancies are filled on a regular basis.
  - to constitute Board of Governors at each Project Institution and ensure that the Board of Governors meet at least 4 times in a year.
  - to ensure implementation of both academic and non-academic reforms by all Project Institutions.
  - to ensure that Project Institutions will secure pedagogical training to their faculty.
  - to extend the benefit of pedagogical training to faculty from non-Project Institutions allocated under sub-component 1.3.
  - to sponsor and support Private unaided institutions.
  - to seek allocation of funds under Innovation Fund and Pedagogical Training as per the provisions made.
  - to support and participate in the support systems developed for the Project like MIS, PMSS etc.
  - to follow the guidelines as per the various manuals developed for the Project like Procurement Manual, Civil Works Manual, Financial Management Manual etc.
- sign MoUs with the Government funded/ Government aided and Private unaided institutions in the formats suggested in PIP.
  - implement the Disclosure Management Framework under the Project to ensure high level of transparency and accountability.
  - comply with the terms and conditions for the release of first and subsequent grant by 'THE FIRST PARTY' as described at Section C and release its matching share of grant accordingly.
  - submit to 'THE FIRST PARTY' all reports and documents relating to progress of the Project, Accounts, Audit, Procurement, Disbursement and Annual Work Plan, as specified in the PIP and at such frequency as may be required by 'THE FIRST PARTY'.
  - maintain a separate account and record of the Project grant received from 'THE FIRST PARTY' through the State treasury and render annual accounts and Utilization Certificates.
  - furnish to 'THE FIRST PARTY' quarterly the Financial Management Reports (FMRs) in the prescribed format in accordance with the procedures as mentioned in the Financial Management Manual.
  - get the accounts of the SPFU at (Name of the Project State) audited as indicated in the PIP. The audited accounts along with a copy of the audit report shall be furnished to 'THE FIRST PARTY' every year as per the schedule indicated in the PIP.
  - submit necessary Utilization Certificates to 'THE FIRST PARTY' for release of subsequent grant.
  - meet all necessary and incidental expenses for the performance of responsibilities like expenses for meetings, travel, professional fees, cost for pre-project activities etc. and will not be the liability of the 'THE FIRST PARTY', unless specifically mentioned under this MoU or otherwise agreed in writing.

## SECTION B:

'THE FIRST PARTY' agrees to:

- release the grant as described at Section C.
- render or arrange to render such technical assistance and guidance as may be needed by 'THE SECOND PARTY', from time to time for an effective and efficient implementation of the Project.
- take corrective actions with regard to the non-performing Institutions in States/UTs.
- review the findings of audits and maintain the policy reforms and conduct evaluation studies.

## SECTION C:

- 'THE FIRST PARTY' and 'THE SECOND PARTY' will jointly share expenditure as approved by the National Steering Committee for 'THE PROJECT'. 'THE FIRST PARTY' in each project year will release the share of grant for funding Government funded/ Government aided institutions towards the approved project cost of 'THE SECOND PARTY', in the ratio of 75:25 between 'THE FIRST PARTY' and 'THE SECOND PARTY' for all States except in the special category States, for which the ratio will be 90:10.
- For private unaided institutions the project cost will be shared in the ratio of 20:20:60 i.e 20% funding from Institutions, 20% funding as grant from 'THE SECOND PARTY' and 60% funding as grant from 'THE FIRST PARTY' for private unaided institutions selected under sub-component 1.1 and for private unaided institutions selected under sub-component 1.2, it will be in the ratio of 75:25 between 'THE FIRST PARTY' and 'THE SECOND PARTY' for all States except in the special category States, the ratio will be 90:10.
- 'THE FIRST PARTY' will release the grant as described above to 'THE SECOND PARTY' in four instalments during each project year in a timely manner for the anticipated expenditures of 'THE SECOND PARTY' for implementation of eligible activities, provided 'THE SECOND PARTY' releases its matching share as required to be provided by 'THE SECOND PARTY' as the case may be under intimation to 'THE FIRST PARTY'. Disbursement of grant to 'THE SECOND PARTY' will be based on Quarterly Financial Management Reports (FMRs).
- 'THE SECOND PARTY' will make 100 percent provision in their budget and will certify that this has been done when making a request for release of each instalment of Central share.
- 'THE SECOND PARTY' will be responsible for release of grant to the respective institutions as per the agreement between the State and the institution and will certify that this has been done when making a request for the release of each instalment of Central share.
- 'THE FIRST PARTY' and 'THE SECOND PARTY' agree to accept the following Key Performance Indicators (KPIs):
  - Percentage of programmes that are accredited
  - Percentage of institutions with academic autonomy
  - Percentage of faculty with a Master or a PhD degree
  - Number of Master and PhD students enrolled
  - Percentage of externally funded R&D
  - Total revenue generated through consultancy
  - Increase in the number of publications in refereed journals
  - Transition rate for students from disadvantaged background and by gender

**SECTION D:**

- 'THE FIRST PARTY' will provide all necessary support to 'THE SECOND PARTY' in particular, through a National Project Implementation Unit (hereinafter called 'THE NPIU'). The functions of 'THE NPIU' are indicated in Section-V of 'THE PIP'.
- 'THE SECOND PARTY' will mainly be responsible for implementing and monitoring the Project in the State/UT of ----- with the assistance of 'THE SPFU'. The functions of 'THE SPFU' are indicated in Section-V of 'THE PIP'.

**SECTION E:**

The Project implementation schedule:

- The Project will become effective in April 2010, as soon as practicable after the Government of India and the 'IDA' have signed a Development Credit Agreement.
- The Project is expected to proceed at uniform rate over four years commencing in April 2010, and expected to be completed in 2014. Preparatory activities carried out after signing of MoUs will be financed retroactively.

**SECTION F:**

- If, as a result of slow implementation by 'THE SECOND PARTY' , 'THE FIRST PARTY' incurs commitment charges in respect of the Development Agreement, 'THE FIRST PARTY' shall seek compensation from 'THE SECOND PARTY' for these charges.

**SECTION G:**

- By this Memorandum of Understanding both parties affirm their commitment to carry out the activities and achieve the objectives mutually agreed upon.
- Any dispute between the parties shall always be resolved by mutual consultation without any resort to arbitration or other form of legal remedy including resort to court of law.
- This Memorandum of Understanding will continue to be effective up to the closure of the Project.
- Adherence to the implementation of the MoU will be monitored bi-annually.
- Amendment to this MoU, if required, shall be carried out in writing duly authenticated and executed by both the parties.

Signed at New Delhi on -----this day of -----2010.

FOR AND ON BEHALF OF  
The Governor/ Administrator  
State/UT Government of  
-----

(Shri -----)  
Principal Secretary/Secretary  
FOR AND ON BEHALF OF  
(Name of the Project State)

FOR AND ON BEHALF OF  
The President of India

(Shri -----)  
Education Secretary/Additional Secretary  
Department of Higher Education,  
Ministry of Human Resource Development  
Government of India

Witness 1 \_\_\_\_\_

Witness 2 \_\_\_\_\_

**MEMORANDUM OF UNDERSTANDING  
BETWEEN  
MINISTRY OF HUMAN RESOURCE DEVELOPMENT (MHRD)  
GOVERNMENT OF INDIA  
AND  
(NAME OF CENTRALLY FUNDED INSTITUTION)  
FOR IMPLEMENTATION OF PROJECT (TEQIP-II) UNDER  
TECHNICAL EDUCATION QUALITY IMPROVEMENT PROGRAMME**

THIS MEMORANDUM OF UNDERSTANDING is made on this \_\_\_\_ day of \_\_\_\_\_ 2010 between \_\_\_\_\_ the President of India acting through Shri \_\_\_\_\_ Education Secretary/ Additional Secretary, Ministry of Human Resource Development (MHRD), Government of India (hereinafter called the 'THE FIRST PARTY') and (name of Centrally Funded Institution) through Prof \_\_\_\_\_, the Director \_\_\_\_\_ (hereinafter called the 'THE SECOND PARTY').

WHEREAS it has been the concern of the 'THE FIRST PARTY' to scale up and support ongoing efforts to improve quality of Technical Education and enhance existing capacities of the institutions to become dynamic, demand-driven, quality conscious, efficient and forward looking, responsive to rapid economic and technological developments occurring both at National and International levels. Accordingly, the Government of India launched a Technical Education Quality Improvement Programme (TEQIP) as a long term programme of 10-12 years duration to be implemented in three phases. The first phase of the Technical Education Quality Improvement Programme (TEQIP) commenced in March 2003 and ended in March 2009. In continuation, the second phase of the TEQIP is now planned as Project TEQIP-II.

- AND WHEREAS in pursuance of this concern, the project objectives are:
  - Strengthening Institutions to produce high quality engineers for better employability
  - Scaling-up PG education and Demand-Driven Research & Development and Innovation
  - Establishing Centers of Excellence for focused applicable research
  - Training of faculty for effective Teaching
  - Enhancing Institutional and System Management effectiveness
- AND WHEREAS the comprehensive description and operating conditions for the project are contained in the document entitled the Project Implementation Plan (hereinafter called 'THE PIP').

THE PARTIES AGREE AS FOLLOWS:

**SECTION A:**

As conditions for participation in 'THE PROJECT', 'THE SECOND PARTY' agrees to:

- follow the project guidelines and procedures prescribed in the PIP and as may be prescribed from time to time by the Government of India for implementation of the Project in pursuance of the obligations set forth or referred to in the Financing Agreement dated ---- between IDA and Government of India.
- follow the procedures for Procurement of all Goods, Works and Services in accordance with the World Bank Guidelines: Procurement under IBRD Loans and IDA Credits May 2004 and revised October 2006 (Procurement Guidelines); and Guidelines: Selection and Employment of Consultants by World Bank Borrowers May 2004 and revised October 2006 (Consultancy Guidelines) and the agreed procedures and limits described in the Legal agreement.
- obtain autonomous institutional status within a period of two years from the start of the Project for institutions selected under sub-component 1.1.

- achieve targets given in Institutional Development Plan (IDP).
- implement all academic and non-academic reforms as committed under the Project and contained in Project Implementation Plan, 'THE PIP'.
- comply with Environment Management Framework (EMF).
- adhere to Equity Action Plan (EAP).
- constitute an Institutional Project Unit with senior faculty experienced in their respective functional areas and sustain it with continuity throughout the period of the Project.
- implement the Disclosure Management Framework under the Project to ensure high level of transparency and accountability.
- secure pedagogical training to all the institutions faculty.
- comply with the terms and conditions for the release of first and subsequent grant by 'THE FIRST PARTY' as described at Section C.
- to seek allocation of funds under Innovation Fund and Pedagogical Training as per the provisions made.
- to support and participate in the support systems developed for the Project like MIS, PMSS etc.
- to follow the guidelines as per the various manuals developed for the Project like Procurement Manual, Civil Works Manual, Financial Management Manual etc.
- submit to THE FIRST PARTY all reports and documents relating to progress of the Project, Accounts, Audit, Procurement, Disbursement and Annual Work Plan, as specified in the PIP and at such frequency as may be required by 'THE FIRST PARTY'.
- maintain a separate account and record of the Project grant received from 'THE FIRST PARTY' and render annual accounts and utilization certificates.
- furnish to 'THE FIRST PARTY' quarterly the Financial Management Reports (FMRs) in the prescribed format in accordance with the procedures as mentioned in the Financial Management Manual.
- get the accounts of 'THE SECOND PARTY' (Name of the Centrally Funded Institution) audited as indicated in the PIP. The audited accounts along with a copy of the audit report shall be furnished to 'THE FIRST PARTY' every year as per the schedule indicated in the PIP.
- submit necessary Utilization Certificates to 'THE FIRST PARTY' for release of subsequent grant.
- meet all necessary and incidental expenses for the performance of responsibilities like expenses for meetings, travel, professional fees, cost for pre-project activities etc. and will not be the liability of 'THE FIRST PARTY', unless specifically mentioned under this MoU or otherwise agreed in writing.

#### **SECTION B:**

'THE FIRST PARTY' agrees to:

- release the grant as described at Section C.
- render or arrange to render such technical assistance and guidance as may be needed by 'THE SECOND PARTY', from time to time for an effective and efficient implementation of the Project.
- supervise the Project in the Centrally Funded Institutions.
- take corrective actions with regard to the non-performing Centrally Funded Institutions.
- review the findings of audits and maintain the policy reforms and conduct evaluation studies.

**SECTION C:**

- 'THE FIRST PARTY' will release funds towards the approved project cost of the Centrally Funded Institutions in four instalments during each project year in a timely manner for the anticipated expenditures for implementation of eligible activities. Disbursement of grant to the CFIs will be based on Quarterly Financial Management Reports (FMRs).
- 'THE FIRST PARTY' and 'THE SECOND PARTY' agree to accept the following Key Performance Indicators (KPIs):
  - Percentage of programmes that are accredited
  - Percentage of institutions with academic autonomy
  - Percentage of faculty with a Master or a PhD degree
  - Number of Master and PhD students enrolled
  - Percentage of externally funded R&D
  - Total revenue generated through consultancy
  - Increase in the number of publications in refereed journals
  - Transition rate for students from disadvantaged background and by gender

**SECTION D:**

- 'THE FIRST PARTY' will provide all necessary support to 'THE SECOND PARTY' in particular, through a National Project Implementation Unit (hereinafter called 'THE NPIU'). The functions of 'THE NPIU' are indicated in Section-V of 'THE PIP'.

**SECTION E:**

The Project implementation schedule:

- The Project will become effective in April 2010, as soon as practicable after the Government of India and the 'IDA' have signed a Development Credit Agreement.
- The Project is expected to proceed at uniform rate over four years commencing in April 2010 and expected to be completed in 2014. Preparatory activities carried out after signing of MoUs will be financed retroactively.

**SECTION F:**

- By this Memorandum of Understanding both parties affirm their commitment to carry out the activities and achieve the objectives mutually agreed upon.
- Any dispute between the parties shall always be resolved by mutual consultation without any resort to arbitration or other form of legal remedy including resort to court of law.
- This Memorandum of Understanding will continue to be effective up to the closure of the Project.
- Adherence to the implementation of the MoU will be monitored bi-annually.
- Amendment to this MoU, if required, shall be carried out in writing duly authenticated and executed by both the parties.

Signed at New Delhi on -----this day of -----2010.

FOR AND ON BEHALF OF  
Chairman, Board of Governors  
(Name of the Centrally Funded Institution)

(Prof -----)  
Director  
(Name of the Centrally Funded Institution)

FOR AND ON BEHALF OF  
The President of India

(Shri -----)  
Education Secretary/Additional Secretary  
Department of Higher Education  
Ministry of Human Resource Development  
Government of India

Witness 1 \_\_\_\_\_

Witness 2 \_\_\_\_\_

**MEMORANDUM OF UNDERSTANDING  
BETWEEN  
(THE STATE OF \_\_\_\_\_ )  
AND  
(NAME OF THE GOVERNMENT FUNDED/ GOVERNMENT AIDED INSTITUTION  
UNDER SUB-COMPONENT 1.1 & 1.2 / PRIVATE UNAIDED INSTITUTION UNDER SUB-  
COMPONENT 1.2)  
FOR IMPLEMENTATION OF PROJECT (TEQIP-II) UNDER  
TECHNICAL EDUCATION QUALITY IMPROVEMENT PROGRAMME**

THIS MEMORANDUM OF UNDERSTANDING is made on this \_\_\_\_ day of \_\_\_\_\_ 2010 between the Governor/ Administrator of the State/UT of (name of the State) through Shri \_\_\_\_\_, Secretary, State of \_\_\_\_\_ (hereinafter called the 'THE FIRST PARTY') and (name of Institution) through Prof \_\_\_\_\_, the Director \_\_\_\_\_ (hereinafter called the 'THE SECOND PARTY') owned and supervised by (Name of Society) \_\_\_\_\_ Under Act \_\_\_\_\_ Name of the place, Registration Number \_\_\_\_.

WHEREAS it has been the concern of the Government of India to scale up and support ongoing efforts to improve quality of Technical Education and enhance existing capacities of the institutions to become dynamic, demand-driven, quality conscious, efficient and forward looking, responsive to rapid economic and technological developments occurring both at National and International levels. Accordingly, the Government of India launched a Technical Education Quality Improvement Programme (TEQIP) as a long term programme of 10-12 years duration to be implemented in three phases. The first phase of the Technical Education Quality Improvement Programme (TEQIP) commenced in March 2003 and ended in March 2009. In continuation, the second phase of the TEQIP is now planned as Project TEQIP-II.

- AND WHEREAS in pursuance of this concern, the project objectives are:
  - Strengthening Institutions to produce high quality engineers for better employability
  - Scaling-up PG education and Demand-Driven Research & Development and Innovation
  - Establishing Centers of Excellence for focused applicable research
  - Training of faculty for effective Teaching
  - Enhancing Institutional and System Management effectiveness
- AND WHEREAS the comprehensive description and operating conditions for the project are contained in the document entitled the Project Implementation Plan (hereinafter called 'THE PIP').

THE PARTIES AGREE AS FOLLOWS:

**SECTION A:**

As conditions for participation in 'THE PROJECT', 'THE SECOND PARTY' agrees to:

- follow the project guidelines and procedures prescribed in the PIP and as may be prescribed from time to time by the Government of India for implementation of the Project in pursuance of the obligations set forth or referred to in the Financing Agreement dated ---- between IDA and Government of India.

- follow the procedures for Procurement of all Goods, Works and Services in accordance with the World Bank Guidelines: Procurement under IBRD Loans and IDA Credits May 2004 and revised October 2006 (Procurement Guidelines); and Guidelines: Selection and Employment of Consultants by World Bank Borrowers May 2004 and revised October 2006 (Consultancy Guidelines) and the agreed procedures and limits described in the Legal agreement.
- obtain autonomous institutional status within a period of two years from the start of the Project for institutions selected under sub-component 1.1.
- achieve targets given in Institutional Development Plan (IDP).
- implement all academic and non-academic reforms as committed under the Project and contained in Project Implementation Plan, 'THE PIP'.
- comply with Environment Management Framework (EMF).
- adhere to Equity Action Plan (EAP).
- constitute an Institutional Project Unit with senior faculty experienced in their respective functional areas and sustain it with continuity throughout the period of the Project.
- implement the Disclosure Management Framework under the Project to ensure high level of transparency and accountability.
- secure pedagogical training to all the institutions faculty.
- comply with the terms and conditions for the release of first and subsequent grant by 'THE FIRST PARTY' as described at Section C.
- to seek allocation of funds under Innovation Fund and Pedagogical Training as per the provisions made.
- to support and participate in the support systems developed for the Project like MIS, PMSS etc.
- to follow the guidelines as per the various manuals developed for the Project like Procurement Manual, Civil Works Manual, Financial Management Manual etc.
- submit to 'THE FIRST PARTY' all reports and documents relating to progress of the Project, Accounts, Audit, Procurement, Disbursement and Annual Work Plan, as specified in the PIP and at such frequency as may be required by 'THE FIRST PARTY'.
- maintain a separate account and record of the Project grant received from 'THE FIRST PARTY' through State treasury and render annual accounts and Utilization Certificates.
- furnish to 'THE FIRST PARTY' quarterly the Financial Management Reports (FMRs) in the prescribed format in accordance with the procedures as mentioned in the Financial Management Manual.
- get the accounts of the (Name of the Project Institution) audited as indicated in the PIP. The audited accounts along with a copy of the audit report shall be furnished to 'THE FIRST PARTY' every year as per the schedule indicated in the PIP.
- submit necessary Utilization Certificates to SPFU/ State for release of subsequent grant.
- meet all necessary and incidental expenses for the performance of responsibilities like expenses for meetings, travel, professional fees, cost for pre-project activities etc. and will not be the liability of 'THE FIRST PARTY', unless specifically mentioned under this MoU or otherwise agreed in writing.

**SECTION B:**

'THE FIRST PARTY' agrees to:

- release the grant as described at Section C.
- render or arrange to render such technical assistance and guidance as may be needed by 'THE SECOND PARTY', from time to time for an effective and efficient implementation of the Project.
- take corrective actions with regard to the non-performing Institutions.
- review the findings of audits and maintain the policy reforms and conduct evaluation studies.

**SECTION C:**

- The MHRD will release the grant to 'THE FIRST PARTY' in four instalments based on Quarterly Financial Management Reports (FMRs) during each project year in a timely manner for the anticipated expenditures of 'THE FIRST PARTY' for implementation of eligible activities, provided 'THE FIRST PARTY' releases its matching share as required to be provided by 'THE FIRST PARTY' as the case may be under intimation to the MHRD. 'THE FIRST PARTY' in each project year will release funds to 'THE SECOND PARTY' towards the approved project cost of 'THE SECOND PARTY' in four instalments, in the ratio of 75:25 between MHRD and 'THE FIRST PARTY' for all States except in the special category States, for which the ratio will be 90:10.
- 'THE FIRST PARTY' and 'THE SECOND PARTY' agree to accept the following Key Performance Indicators (KPIs):
  - Percentage of programmes that are accredited
  - Percentage of institutions with academic autonomy
  - Percentage of faculty with a Master or a PhD degree
  - Number of Master and PhD students enrolled
  - Percentage of externally funded R&D
  - Total revenue generated through consultancy
  - Increase in the number of publications in refereed journals
  - Transition rate for students from disadvantaged background and by gender
  - Institutions found to be charging capitation fee or indulging in any other malpractice will face punitive action amounting to either their exclusion from the Project and recovery of Central and State funds provided to them till the date of their exclusion or curtailment of project funding.

**SECTION D:**

- 'THE FIRST PARTY' will provide all necessary support to 'THE SECOND PARTY' in particular, through a State Project Facilitation Unit (hereinafter called 'THE SPFU'). The functions of 'THE SPFU' are indicated in Section-V of 'THE PIP'.

**SECTION E:**

The Project implementation schedule:

- The Project will become effective in April 2010, as soon as practicable after the Government of India and the 'IDA' have signed a Development Credit Agreement.

- The Project is expected to proceed at uniform rate over four years commencing in April 2010 and expected to be completed in 2014. Preparatory activities carried out after signing of MoUs will be financed retroactively.

**SECTION F :**

- By this Memorandum of Understanding both parties affirm their commitment to carry out the activities and achieve the objectives mutually agreed upon.
- Any dispute between the parties shall always be resolved by mutual consultation without any resort to arbitration or other form of legal remedy including resort to court of law.
- This Memorandum of Understanding will continue to be effective up to the closure of the Project.
- Adherence to the implementation of the MoU will be monitored bi-annually.
- Amendment to this MoU, if required, shall be carried out in writing duly authenticated and executed by both the parties.

Signed at New Delhi on -----this day of -----2010.

FOR AND ON BEHALF OF  
Chairman, Board of Governors  
(Name of the Institution)

Prof-----  
Director  
(Name of the Institution)  
(Name of the Project State/UT)

Witness 1 \_\_\_\_\_

Witness 2 \_\_\_\_\_

FOR AND ON BEHALF OF  
Governor of State

Shri -----  
Principal Secretary/-----Secretary  
(Name of the Project State/UT)

**MEMORANDUM OF UNDERSTANDING  
BETWEEN  
(THE STATE OF \_\_\_\_\_)  
AND  
(NAME OF THE PRIVATE UNAIDED INSTITUTION UNDER SUB-COMPONENT 1.1)  
FOR IMPLEMENTATION OF PROJECT (TEQIP-II) UNDER  
TECHNICAL EDUCATION QUALITY IMPROVEMENT PROGRAMME**

THIS MEMORANDUM OF UNDERSTANDING is made on this \_\_\_\_ day of \_\_\_\_\_ 2010 between the Governor/ Administrator of the State/UT of (name of the State) through Shri \_\_\_\_\_, Secretary, State of \_\_\_\_\_ (hereinafter called the 'THE FIRST PARTY') and (name of Institution) through Prof \_\_\_\_\_, the Director \_\_\_\_\_ (hereinafter called the 'THE SECOND PARTY') owned and supervised by (Name of Society) \_\_\_\_\_ Under Act \_\_\_\_\_ Name of the place, Registration Number \_\_\_\_.

WHEREAS it has been the concern of the Government of India to scale up and support ongoing efforts to improve quality of Technical Education and enhance existing capacities of the institutions to become dynamic, demand-driven, quality conscious, efficient and forward looking, responsive to rapid economic and technological developments occurring both at National and International levels. Accordingly, the Government of India launched a Technical Education Quality Improvement Programme (TEQIP) as a long term programme of 10-12 years duration to be implemented in three phases. The first phase of the Technical Education Quality Improvement Programme (TEQIP) commenced in March 2003 and ended in March 2009. In continuation, the second phase of the TEQIP is now planned as Project TEQIP-II.

- AND WHEREAS in pursuance of this concern, the project objectives are:
  - Strengthening Institutions to produce high quality engineers for better employability
  - Scaling-up PG education and Demand-Driven Research & Development and Innovation
  - Establishing Centers of Excellence for focused applicable research
  - Training of faculty for effective Teaching
  - Enhancing Institutional and System Management effectiveness
- AND WHEREAS the comprehensive description and operating conditions for the Project are contained in the document entitled the Project Implementation Plan (hereinafter called 'THE PIP').

THE PARTIES AGREE AS FOLLOWS:

**SECTION A:**

As conditions for participation in 'THE PROJECT', 'THE SECOND PARTY' agrees to:

- follow the project guidelines and procedures prescribed in the PIP and as may be prescribed from time to time by the Government of India for implementation of the Project in pursuance of the obligations set forth or referred to in the Financing Agreement dated ---- between IDA and Government of India.

- follow the procedures for Procurement of all Goods, Works and Services in accordance with the World Bank Guidelines: Procurement under IBRD Loans and IDA Credits May 2004 and revised October 2006 (Procurement Guidelines); and Guidelines: Selection and Employment of Consultants by World Bank Borrowers May 2004 and revised October 2006 (Consultancy Guidelines) and the agreed procedures and limits described in the Legal agreement.
- obtain autonomous institutional status within a period of two years from the start of the Project for institutions selected under sub-component 1.1.
- achieve targets given in Institutional Development Plan (IDP).
- implement all academic and non-academic reforms as committed under the Project and contained in Project Implementation Plan, 'THE PIP'.
- comply with Environment Management Framework (EMF).
- adhere to Equity Action Plan (EAP).
- constitute an Institutional Project Unit with senior faculty experienced in their respective functional areas and sustain it with continuity throughout the period of the Project.
- contribute 20% of the project cost for the implementation of Project activities as per Project Implementation Plan (PIP).
- implement the Disclosure Management Framework under the Project to ensure high level of transparency and accountability.
- secure pedagogical training to all the institutions faculty.
- comply with the terms and conditions for the release of first and subsequent grant by 'THE FIRST PARTY' as described at Section C.
- to seek allocation of funds under Innovation Fund and Pedagogical Training as per the provisions made.
- to support and participate in the support systems developed for the Project like MIS, PMSS etc.
- to follow the guidelines as per the various manuals developed for the Project like Procurement Manual, Civil Works Manual, Financial Management Manual etc.
- submit to 'THE FIRST PARTY' all reports and documents relating to progress of the Project, Accounts, Audit, Procurement, Disbursement and Annual Work Plan, as specified in the PIP and at such frequency as may be required by 'THE FIRST PARTY'.
- maintain a separate account and record of the Project grant received from 'THE FIRST PARTY' through State treasury and render annual accounts and utilization certificates.
- furnish to 'THE FIRST PARTY' quarterly the Financial Management Reports (FMRs) in the prescribed format in accordance with the procedures as mentioned in the Financial Management Manual.
- get the accounts of the (Name of the Project Institution) audited as indicated in the PIP. The audited accounts along with a copy of the audit report shall be furnished to 'THE FIRST PARTY' every year as per the schedule indicated in the PIP.
- submit necessary Utilization Certificates to SPFU/ State for release of subsequent grant.
- meet all necessary and incidental expenses for the performance of responsibilities like expenses for meetings, travel, professional fees, cost for pre-project activities etc. and will not be the liability of 'THE FIRST PARTY', unless specifically mentioned under this MoU or otherwise agreed in writing.

## SECTION B:

'THE FIRST PARTY' agrees to:

- release the grant as described at Section C.
- render or arrange to render such technical assistance and guidance as may be needed by 'THE SECOND PARTY', from time to time for an effective and efficient implementation of the Project.
- take corrective actions with regard to the non-performing Institutions.
- review the findings of audits and maintain the policy reforms and conduct evaluation studies.

## SECTION C:

- The MHRD will release the grant to 'THE FIRST PARTY' in four instalments based on Quarterly Financial Management Reports (FMRs) during each project year in a timely manner for the anticipated expenditures of 'THE FIRST PARTY' for implementation of eligible activities, provided 'THE FIRST PARTY' releases its matching share as required to be provided by 'THE FIRST PARTY' under intimation to the MHRD. 'THE FIRST PARTY' in each project year will release funds to 'THE SECOND PARTY' towards the approved project cost of 'THE SECOND PARTY' in four instalments in the ratio of 20:20:60 i.e 20% funding from 'THE SECOND PARTY', 20% funding as grant from 'THE FIRST PARTY' and 60% funding as grant from the MHRD.

The private unaided institutions selected under sub-component 1.1 will be funded for carrying out the following activities:

- Procurement of Learning Resources
  - Starting new PG programmes
  - Curricular reforms
  - Faculty and Staff Development for improved competence
  - Enhanced interaction with industry
  - Institutional management capacity enhancement
  - Implementation of Institutional reforms
  - Academic support for weak students
- 'THE FIRST PARTY' and 'THE SECOND PARTY' agree to accept the following Key Performance Indicators (KPIs):
    - Percentage of programmes that are accredited
    - Percentage of institutions with academic autonomy
    - Percentage of faculty with a Master or a PhD degree
    - Number of Master and PhD students enrolled
    - Percentage of externally funded R&D
    - Total revenue generated through consultancy
    - Increase in the number of publications in refereed journals
    - Transition rate for students from disadvantaged background and by gender
    - Institutions found to be charging capitation fee or indulging in any other malpractice will face punitive action amounting to either their exclusion from the Project and recovery of Central and State funds provided to them till the date of their exclusion or curtailment of project funding.

**SECTION D:**

- 'THE FIRST PARTY' will provide all necessary support to 'THE SECOND PARTY' in particular, through a State Project Facilitation Unit (hereinafter called 'THE SPFU'). The functions of 'THE SPFU' are indicated in Section-V of 'THE PIP'.

**SECTION E:**

The Project implementation schedule:

- The Project will become effective in April 2010, as soon as practicable after the Government of India and the 'IDA' have signed a Development Credit Agreement.
- The Project is expected to proceed at uniform rate over four years commencing in April 2010 and expected to be completed in 2014. Preparatory activities carried out after signing of MoUs will be financed retroactively.

**SECTION F:**

- By this Memorandum of Understanding both parties affirm their commitment to carry out the activities and achieve the objectives mutually agreed upon.
- Any dispute between the parties shall always be resolved by mutual consultation without any resort to arbitration or other form of legal remedy including resort to court of law.
- This Memorandum of Understanding will continue to be effective up to the closure of the Project.
- Adherence to the implementation of the MoU will be monitored bi-annually.
- Amendment to this MoU, if required, shall be carried out in writing duly authenticated and executed by both the parties.

Signed at New Delhi on -----this day of -----2010.

FOR AND ON BEHALF OF  
Chairman, Board of Governors  
(Name of the Institution)

Prof-----  
Director  
(Name of the Institution)  
(Name of the Project State/UT)

Witness 1 \_\_\_\_\_

Witness 2 \_\_\_\_\_

FOR AND ON BEHALF OF  
Governor of State

Shri -----  
Principal Secretary/-----Secretary  
(Name of the Project State/UT)

**TECHNICAL EDUCATION QUALITY IMPROVEMENT PROGRAMME (TEQIP)**

**PHASE – II**

**FORMAT FOR  
SELECTION OF STATES AND UTs**

## Eligibility Criteria for Selection of State

The States<sup>1</sup> will be selected based on merit of the proposals and on meeting the following eligibility criteria:

S. N.	Attainment Parameters
1.	<p><b>Autonomous Status</b> : The States encourage the Project Institutions participating in sub-component 1.1 to obtain autonomous institution status as per UGC norms to enable them to improve quality and relevance of the knowledge and skills of the graduates through betterment in curriculum and assessment methods. The States need to issue orders to Project Institutions before signing of MoU with MHRD (refer Annex-III (a)) to seek and obtain autonomous status as per UGC norms and procedures (refer Annex-II).</p> <p><b>Continuation of funding to any Project Institution beyond the second year of the Project will be subject to its obtaining autonomous institution status.</b></p>
2.	<p><b>Decentralization of financing framework</b> : The States need to create an enabling financing framework that decentralizes a reasonable share of financial discretion to the institution's leadership, incentivizes the institution to increase its internally generated revenue, and establish funds to allow for mid-term financial planning. The State need to:</p> <ul style="list-style-type: none"> <li>▪ <b>Adopt a Block Grant pattern</b> : (as described in Annex-I) for fund release of, at least, the <b>non-salary non-Plan component</b> of grants to the funded (and aided as the case may be) Project Institutions. The funds' utilization is to be left to the decision of the Project Institution as it deems fit during each financial year to achieve its mission, respecting regular Government purchasing and accounting guidelines</li> <li>▪ <b>Retention of IRG</b> : Permit Project Institutions to retain and utilize the revenue generated, including 100% of tuition and other fee and charges from students without adjusting the revenue retained in their non-Plan grants.</li> <li>▪ <b>Establishment of four funds</b> : Permit the funded and aided Project Institutions to establish 4 funds (as recommended in Annex-I), each in a separate Bank account, namely the Corpus Fund, Faculty Development Fund, Equipment Replacement Fund and Maintenance Fund (for maintenance of buildings and equipment). <ul style="list-style-type: none"> <li>➤ Direct Project Institutions to build these funds with annual contribution into each fund equal to at least 0.5% (total 2%) of annual recurring expenditure of the institution, and direct each Project Institution to additionally contribute from savings into the Corpus Fund;</li> <li>➤ Issue guidelines for proper management of four funds after closure of this Project.</li> </ul> </li> </ul>
3.	<p><b>Filling-up the faculty vacancies</b> : The benchmark value for the faculty positions on regular full time basis for institutions under sub-component 1.1 and 1.2 are mentioned in Section 4.3.1 and 4.3.2 respectively. The States need to authorize each Project Institution to fill up the all faculty vacancies (over and above the benchmark value), with appointments on 11 month or longer contracts till such time that these vacancies are filled on a regular basis.</p>
4.	<p><b>Establishment of SPFUs</b> : Establish an SPFUs, located in the Department of the State Government responsible for Technical Education. The Head of SPFU shall be the Director or the equivalent officer responsible for Technical Education in that Department and will be designated as the State Project Advisor (SPA). The SPA will be assisted by a Project Coordinator who will be an academican. State should be willing to take a decision not to transfer / change the SPFU officials for the duration of the Project.</p>
5.	<p><b>Constitution of BoG in each Project Institution</b>: Establish a governance model that will hold each government funded and government aided institution accountable towards government, civil society, and industry. In particular, the States need to constitute/ensure formation of a Board of Governors in each Project Institution as suggested in Section-V and ensure that the Board of Governors meet at least 4 times in a year.</p>
6.	<p><b>Reforms Implementation</b> : Each State is to implement the Project according to the Project Implementation Plan. This includes support and facilitation to implement both academic and non-academic reforms prescribed for implementation by all Project Institutions. (Refer Annex-I)</p>
7.	<p><b>Conduct of Pedagogical Training</b> : Each State has to ensure that each Project Institution imparts pedagogical training to all the faculty members. The benefit of pedagogical training is also to be extended to faculty to non -TEQIP institutions on cost sharing basis.</p>

Note: Release of the first instalment of Central Project funds to a State for its institutions will be subject to receipt by the NPIU of the necessary documentation in respect of compliance with the eligibility criteria 1-5.

<sup>1</sup> Throughout the PIP, the word "State" implies both the State Governments and the Union Territory Governments.

## SELECTION OF STATES

### PART – I

- 2.1 Name of the State / UT: \_\_\_\_\_
- 2.2 Name of Secretary/Principal Secretary dealing with higher education: \_\_\_\_\_
- 2.3 Location of Directorate of Technical Education (DTE) / Department of State Government responsible for Technical Education: \_\_\_\_\_
- Name of the Director of Technical Education (DTE) / Responsible officer in the Department of State Government responsible for Technical Education: \_\_\_\_\_
- 2.4 Furnish the baseline data in Table-1.
- 2.5 Briefly explain the key policy objectives and challenges for Technical Education in the State and how the participation in the Project will help in enhancing quality of Technical Education as whole in the State? [Maximum 2 pages]
- 2.6 Summarize the main steps and challenges to implement increased academic autonomy to institutions participating in component 1.1. [eligibility criteria 1] and establishing a Board of Governors [eligibility criteria 5]. Has the State consulted with affiliating Universities regarding this proposal? [Maximum 1 page]
- 2.7 Summarize the main steps and challenges to implement the enabling financing framework [eligibility criteria 2 and 3]. Has the State Financing Department been consulted and has it agreed to this framework? [Maximum 1 page]
- 2.8 Briefly explain the State plan for sustaining the gains from the Project after the closing of it. [Maximum ½ page]

**Table – 1**

**State/ UT Level Data (please give totals for the respective type of institutions in the State/UT and the gross total for the academic year 2009-2010)**

Level of Program in Engineering Disciplines	State/UT Government Funded Institutions including Universities/ Deemed Universities				State/UT Government Aided Institutions including Universities/ Deemed Universities				Private Unaided Institutions including Universities/ Deemed Universities				Gross Total (totals in the State/UT excluding those in the centrally-funded institutions/ Universities and Deemed Universities)			
	No. of Institutions	No. of Programs	Total Sanctioned Seats	Total No. of Students Admitted	No. of Institutions	No. of Programs	Total Sanctioned Seats	Total No. of Students Admitted	No. of Institutions	No. of Programs	Total Sanctioned Seats	Total No. of Students Admitted	No. of Institutions	No. of Programs	Total Sanctioned Seats	Total No. of Students Admitted
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
Bachelors Degree																
Masters Degree																
Doctoral Degree <sup>2</sup>		X	X			X	X			X	X			X	X	

(X indicates the information not required)

<sup>2</sup> For Doctoral programs, please give the total number of PhD registrants during 2009-2010 in columns 4, 8, 12 and 16.

## PART - II

### Essential commitments from the State:

S. No.	Item	State's Commitment (Yes/No)
1	<b>Does the State agree to:</b> share the project cost of the Government funded and aided institutions with MHRD in the ratio of 25:75 (10:90 in case of special category States)?	
2	submit proposals from private unaided institutions and provide grant to these private unaided institutions on cost sharing basis as recommended in PIP?	
3	conduct the pedagogy training for faculty of non-Project Institutions?	
4	consider applying for innovation fund?	
5	implement the project according to the Project Implementation Plan?	
6	ensure implementation of both academic and non-academic reforms by all Project Institutions?	
7	encourage the Project Institutions participating in sub-component 1.1 to obtain autonomous institution status within two years, and accordingly issue orders to Project Institutions to seek and obtain autonomous institutions status as per UGC norms and procedures?	
8	dis-continue the funding to any Project Institution beyond the second year of the Project, if the Project Institution fails in obtaining the autonomous institution status or neglects project implementation?	
9	adopt a Block Grant pattern for fund release of at least the non-salary non-Plan component of grants to the Project Institutions?	
10	permit Project Institutions to retain and utilize the revenue generated, including 100% of tuition and other fee and charges from students without adjusting the revenue retained in their non-Plan grants?	
11	permit the Project Institutions to establish 4 funds each in a separate Bank account, namely the Corpus Fund, Faculty Development Fund, Equipment Replacement Fund and Maintenance Fund (for maintenance of buildings and equipment) as recommended in PIP?	
12	authorize each Project Institution to fill up the faculty vacancies (over and above the benchmark value) to 100% on 11 month period or longer contracts till such time that these vacancies are filled on regular basis?	
13	establish "State Project Facilitation Unit" (SPFU) located in State Directorate of Technical Education / the department responsible for Technical Education with adequate staff and maintain the staffing with stability?	
14	constitute Board of Governors at each Project Institution as suggested in Annex-II of PIP and ensure that the Board of Governors meet at least 4 times in a year and makes available the main proceedings of the meetings on the internet?	
15	comply with Financial Management guidelines as described in Section-VI?	
16	follow Procurement guidelines as described in Section – VIII of PIP?	
17	comply with the Equity Action Plan as described in Section – IX of PIP?	
18	comply with the Environment Management Framework as described in Section–X of PIP?	
19	comply with the Disclosure Management Framework as described in Section–XI of PIP?	

**TECHNICAL EDUCATION QUALITY IMPROVEMENT PROGRAMME  
(TEQIP)**

**PHASE-II**

**FORMAT FOR  
INSTITUTIONAL ELIGIBILITY PROPOSAL  
for**

**Sub-component 1.1 : Strengthening Institutions to improve learning  
outcomes and employability of graduates**

# 1. INSTITUTIONAL BASIC INFORMATION

## 1.1 Institutional Identity

- Name of the Institution: \_\_\_\_\_
- Is the institution AICTE approved? : Yes/No
- Furnish AICTE approval No : \_\_\_\_\_
- Type of Institution : Govt. funded/ Govt. aided/ private unaided/ autonomous / other
- Status of Institution : Autonomous Institute as declared by University / Non Autonomous / Deemed University / Constituent College
- Name of Head of the institution : \_\_\_\_\_

## 1.2 Academic Information:

- **Engineering UG and PG Programmes offered in Academic year 2009-10**

S. No	Title of Programme	Level (UG, PG, PhD)	Duration (Years)	Year of starting	AICTE Sanctioned Annual intake	Total Student Strength

- **Accreditation Status of UG Programmes:**

Title of UG Programmes being offered	Whether eligible for accreditation or not	Whether accredited as on 31 <sup>st</sup> Dec. 2009	Whether "Applied for" as on 31 <sup>st</sup> Dec 2009

- **Accreditation Status of PG Programmes:**

Title of PG Programmes being offered	Whether eligible for accreditation or not	Whether accredited as on 31 <sup>st</sup> Dec. 2009	Whether "Applied for" as on 31 <sup>st</sup> Dec 2009

## 1.3 Faculty Status (Regular/On-Contract Faculty as on December 31, 2009)

Faculty Rank	No. of Sanctioned Regular Post	Present Status : Number in Position by Highest Qualification												Total Number of regular faculty in Position	Total Number of Vacancies	Total Number of contract faculty in Position
		Doctoral Degree				Masters Degree				Bachelor Degree						
		Engg. Disciplines		Other Disciplines		Engg. Disciplines		Other Disciplines		Engg. Disciplines		Other Disciplines				
		R	C	R	C	R	C	R	C	R	C	R	C			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15= (3+5+7+9+11+13)	16= (2-15)	17= (4+6+8+10+12+14)
Prof																
Asso Prof																
Asst Prof																
Lec																
<b>Total</b>																

Prof = Professor, Asso Prof = Associate Professor, Asst Prof = Assistant Professor, Lec=Lecturer, R=Regular, C=Contract

## 2. ELIGIBILITY PROPOSAL

The eligibility proposals will be evaluated in meeting the “eligibility criteria” and capacity for implementation of key reforms.

### 2.1 Eligibility Criteria

Institutions to be eligible under the sub-component 1.1 should fulfill the following benchmarks:

**Table-1**

S. No.	Attainment Parameters	Bench-mark values	Institution's response (Yes/No)
1.	Does the institution agree to implement all academic and non-academic reforms given below : <ul style="list-style-type: none"> <li>• Implementation of Curricular Reforms</li> <li>• Exercise of autonomies</li> <li>• Establishment of Corpus Fund, Faculty Development Fund, Equipment Replacement Fund and Maintenance Fund</li> <li>• Generation, retention and utilization of revenue generated through variety of activities</li> <li>• Filling up all existing teaching and staff vacancies</li> <li>• Delegation of decision making powers to senior functionaries with accountability</li> <li>• Improve Student Performance Evaluation</li> <li>• Implement performance appraisal of faculty by students</li> <li>• Provide faculty incentive for continuing education (CE), consultancy and R&amp;D</li> <li>• Obtaining accreditation</li> </ul>	Yes	
2.	Age of the Institution from the start of its first academic session (in years) <ul style="list-style-type: none"> <li>a) Regular States</li> <li>b) New States lagging in Technical Education</li> </ul>	6 4	
3.	Total number of UG & PG programmes currently conducted	4	
4.	Faculty positions filled on regular full time basis as percentage of the total faculty positions sanctioned in accordance with the AICTE prescribed student to faculty ratio	50%	
5.	Presence of Board of Governors (as per recommended structure given in Section-V) with an eminent academician or industrialist as the Chairperson	Yes	

2.2 Provide summary of SWOT analysis [Maximum 2 pages]

2.3 State the general objectives of your proposal and elaborate the specific objectives and expected results of the proposal in terms of Institutional strengthening and improvements in employability and learning outcomes of graduates. These objective and results should be linked to the SWOT analysis [Maximum 2 pages]

- 2.4 Provide the Action Plan to achieve the results and implement the proposal. [Maximum 2 pages]
- 2.5 Describe the capacity and steps for Implementation of key reforms: [Maximum 2 pages in total]
- a. How will the institution obtain autonomous status in two years and what are the main challenges?
  - b. How will the institution obtain accreditation of its programmes and what are the main challenges?
  - c. How will the Institution be able to plan utilization of Block Grant effectively and efficiently?
  - d. How will the institution be able to increase its non-tuition revenue?
- 2.6 Provide information related to special academic achievements of the institution that will add to the qualification of institution to join the project. [Maximum ½ page]  
(Enclose supporting document: AICTE Mandatory Disclosure for 2009)

**TECHNICAL EDUCATION QUALITY IMPROVEMENT PROGRAMME (TEQIP)**

**PHASE-II**

**FORMAT FOR  
INSTITUTIONAL DEVELOPMENT PROPOSAL**

**for**

**Sub-Component 1.1 : Strengthening Institutions to improve learning  
outcomes and employability of graduates**

**(To be submitted after obtaining the clearance for the Eligibility Proposal)**

## 1. INSTITUTIONAL BASIC INFORMATION

### 1.1 Institutional Identity

- Name of the Institution: \_\_\_\_\_
- Is the institution AICTE approved ? : Yes/No
- Furnish AICTE approval no. :
- Type of Institution : Govt. funded/ Govt. aided/ Private unaided / Autonomous / Other
- Status of Institution : Autonomous Institute as declared by University / Non-Autonomous / Deemed University / Constituent College
- Name of Head of Institution and Project Nodal Officers

Head & Nodal Officer	Name	Phone Number	Mobile Number	Fax Number	E-mail Address
Head of the Institution					
Project Nodal Officers for:					
Academic Activities					
Civil Works including Environment Management					
Procurement					
Financial Aspects					
Equity Assurance Plan					

### 1.2 Academic Information

- **Engineering Programmes offered in Academic year 2009-10**

S. No	Title of Programme	Level (UG, PG, PhD)	Duration (Years)	Year of starting	AICTE Sanctioned Annual Intake	Total Student strength

- **Accreditation Status of UG Programmes:**

Title of UG Programmes being offered	Whether eligible for accreditation or not	Whether accredited as on 31 <sup>st</sup> Dec. 2009	Whether "Applied for" as on 31 <sup>st</sup> Dec 2009

- **Accreditation Status of PG Programmes:**

Title of PG Programmes being offered	Whether eligible for accreditation or not	Whether accredited as on 31 <sup>st</sup> Dec. 2009	Whether "Applied for" as on 31 <sup>st</sup> Dec 2009

### 1.3 Faculty Status (Regular/On-Contract Faculty as on December 31, 2009)

Faculty Rank	No. of Sanctioned Regular Post	Present Status : Number in Position by Highest Qualification												Total Number of regular faculty in Position	Total Vacancies	Total Number of contract faculty in Position
		Doctoral Degree				Masters Degree				Bachelor Degree						
		Engg. Discipline		Other Discipline		Engg. Discipline		Other Discipline		Engg. Discipline		Other Discipline				
		R	C	R	C	R	C	R	C	R	C	R	C			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15= (3+5+7+ 9+ 11+13)	16= (2- 15)	17= (4+6+8+1 0+12+14)
Prof																
Asso Prof																
Asst Prof																
Lec																
Total																

Prof = Professor, Asso Prof = Associate Professor, Asst Prof = Assistant Professor, Lec=Lecturer, R=Regular, C=Contract

### 1.4 Baseline Data

S. No.	Parameters	
1	Total strength of students in all programmes and all years of study in the year 2009-2010	
2	Total women students in all programmes and all years of study in the year 2009-2010	
3	Total SC students in all programmes and all years of study in the year 2009-2010	
4	Total ST students in all programmes and all years of study in the year 2009-2010	
5	Total OBC students in all programmes and all years of study in the year 2009-2010	
6	Number of fully functional P-4 and above level computers available for students in the year 2009-10	
7	Total number of syllabus Text books and Reference books available in library for UG & PG students in the year 2009-10	
8	% of UG students placed through campus interviews in the year 2008-09	
9	% of PG students placed through campus interviews in the year 2008-09	
10	% of High quality under graduates (>75% marks) passed out in the year 2008-09	
11	% of High quality post graduates (>75% marks) passed out in the year 2008-09	
12	Number of research publications in Indian refereed Journals in the year 2008-09	
13	Number of research publications in International refereed Journals in the year 2008-09	
14	Number of Patents obtained in the year 2008-09	
15	Number of Patents filed in the year 2008-09	
16	Number of sponsored research projects completed in the year 2008-09	
17	The transition rate of students in percentage from 1 <sup>st</sup> year to 2 <sup>nd</sup> year in the year 2008-09 for : (i) all students (ii) SC (iii) ST (iv) OBC	
18	IRG from students fee and other charges in the year 2008-09 (Rs. In lacs)	
19	IRG from commercialization of R & D products, consultancy & other sources in the year 2008-09 (Rs. in lacs)	
20	Total IRG in the year 2008-09 (Rs. in lacs)	
21	Total recurring expenditure in the year 2008-09 (Rs. in lacs)	

## 2. INSTITUTIONAL DEVELOPMENT PROPOSAL (IDP)

- 2.1 Give the executive summary of the IDP (maximum ½ page)
- 2.2
- Provide the details of SWOT analysis carried out.
  - Based on SWOT analysis, provide the strategic plan developed for Institutional development.
  - Attach the summary of SWOT analysis and show how the results of SWOT analysis are linked to the key activities proposed in the proposal.
- 2.3 State the specific objectives and expected results of your proposal in terms of, “Institutional strengthening and improvements in employability and learning outcomes of graduates”. These objective and results should be linked to the SWOT analysis.
- 2.4 Provide an Action Plan for : (max 1 page each)
- (a) Improving employability of graduates
  - (b) Increased learning outcomes of the students
  - (c) Obtaining autonomous institution status within 2 years
  - (d) Achieving the targets of 60% of the eligible UG programmes accredited by the end of two years and 100% accreditation obtained and applied for by the end of the Project of the eligible UG & PG programmes
  - (e) Implementation of academic and non academic reforms (details given in Annex-I)
  - (f) Improving interaction with industry
  - (g) Enhancement of research and consultancy activities
- 2.5 Provide an Action Plan for improving the academic performance of SC/ST/OBC/academically weak students through innovative methods, such as remedial and skill development classes for increasing the transition rate and pass rate with the objective of improving their employability.
- 2.6 Provide an Action Plan for strengthening of PG programmes, if any and starting of new PG Programmes.
- 2.7 Provide Faculty Development Plan for the first 18 months for improving their teaching, subject area and research competence based on Training Needs Analysis (TNA) in the following areas. Attach the summary of Training Needs Analysis carried out.
- Basic and advanced pedagogy
  - Subject / domain knowledge enhancement
  - Attendance in activities such as workshops, seminars
  - Improvement in faculty qualifications
  - Improving research capabilities
- 2.8 Provide an Action Plan for training technical and other staff in functional areas.
- 2.9 Describe the relevance and coherence of Institutional Development Proposal with State’s/National (in case of CFIs) Industrial /Economic Development Plan.
- 2.10 Describe briefly the participation of departments/faculty in the proposal preparation and implementation.
- 2.11 Describe the Institutional project implementation arrangements.
- 2.12 Provide an Institutional budget in Table-1

**Table-1 : INSTITUTIONAL BUDGET**

(Rs. In Crore)

S. No	Activities	Project Life Allocation	Project Financial year			
			2010-11	2011-12	2012-13	2013-14
1	Faculty and Staff Development					
2	Institutional management capacity enhancement					
3	Academic support for weak students					
4	Modernization and strengthening of laboratories					
5	Establishment of new laboratories for existing programmes					
6	Modernization of classrooms					
7	Update of Learning Resources					
8	Establishment / Upgradation of central and departmental Computer centers					
9	Modernization and strengthening of libraries and / or access to knowledge source					
10	Providing assistanceship for Masters & Doctoral Students					
11	Establishing laboratory for new PG programmes					
12	Enhancement of research activities					
13	Refurbishment of infrastructure					
14	Enhanced Interaction with Industries					
15	Implementation of Institutional reforms					
16	Incremental Operating Cost					
<b>TOTAL</b>						

2.13 Provide category wise expenditure details in Table-2.

**Table-2 : CATEGORY WISE EXPENDITURE DETAILS**

(Rs. In Crore)

S. No	Components	Project Life Allocation	Project Financial year			
			2010-11	2011-12	2012-13	2013-14
1	Equipment					
2	Furniture					
3	Books & LR&S & Softwares					
4	Civil Works					
5	Assistanceship					
6	Training / workshops to be conducted					
7	Faculty Development					
8	Institutional management capacity enhancement					
9	Consultancies secured					
10	Incremental Operating Cost					
<b>TOTAL</b>						

**Note :** Total cost per year in Table 1 & Table 2 should match with each other.

2.14 Provide the targets against the deliverables listed in Table-3.

**Table-3 : INSTITUTIONAL PROJECT TARGETS**

S. No.	Deliverables	Baseline	Targets to be achieved	
			At the end of 2 years	By Project closing
1	Number of students registered for (a) Masters in Engineering programme (b) Doctoral programme in engineering			
2	Revenue from externally funded R&D projects and consultancies in total revenue (Rs. in lacs)			
3	Number of publications in refereed journals (a) National (b) International			
4	Number of co-authored publications in refereed journals (a) National (b) International			
5	Student credentials (a) campus placement rate of <ul style="list-style-type: none"> <li>• UG students</li> <li>• PG students</li> </ul> (b) average salary of placement package for (Rs. in lacs) <ul style="list-style-type: none"> <li>• UG students</li> <li>• PG students</li> </ul>			
6	Number of collaborative programmes with industry			
7	Accreditation status		Minimum 60% required	100% eligible UG & PG programme obtained and applied for
8	Vacancy position for faculty and staff		Vacancy reduced to 10% or less	
9	Number of regular faculty having a Master degree or a doctorate degree in engineering disciplines		Increased by 20% and 10% respectively	
10	Transit rate from 1 <sup>st</sup> to 2 <sup>nd</sup> year for the following : <ul style="list-style-type: none"> <li>• All Students</li> <li>• SC &amp; ST Students</li> <li>• OBC Students</li> <li>• Women Students</li> </ul>			
11	Autonomy status		Required to be obtained	
12	Enrollment of faculty with only Bachelor degree for qualification upgradation		50% at the institution or 25% at other institution	
13	Any other academic deliverables (maximum 3)			
(i)				
(ii)				
(iii)				

2.15 Indicate the action plan to ensure that the Project activities would be sustained after the end of the Project.

2.16 Provide procurement plan for the first 18 months for Goods / Civil Works in Table-4 and Consultancy Services including Pedagogical Training in Table-5 with budget and timeframe.

**Table-4 : 18 MONTHS PROCUREMENT PLAN FOR WORKS/ GOODS\* FOR PROJECT**

Package No.	SL No.	Description of Works/ Goods	Estimated Cost (Rs)	Method of Procurement	Design/ Investigation completed/ Specification finalization (Date)	Estimate Sanctioned (Date and Value)	Preparation of Bid Document (Date)	Bank's No Objection to Bidding Document (Date)**	Bids		Contract Award (Date/ Value)	Date of completion of Contract
									Invitation (Date)	Opening (Date)		
1	2	3	4	5	6	7	8	9	10	11	12	13
1												
2												
3												

\* Goods covers Equipment, Furniture and Books & Learning Resources

\*\* Applicable in case of 'Prior Review' by Bank.

Note: For Column 5, state ICB/NCB/Direct Contracting/Shopping as appropriate

**Table-5 : 18 MONTHS PROCUREMENT PLAN FOR CONSULTANCY SERVICES FOR PROJECT**

SL No.	Description of Services	Estimated Cost (Rs)	Methods of Selection @	TOR Finalization (Date)	Advertisement (Date)	◆ RFP Final Draft to be forwarded to the Bank (Date)**	No Objection from Bank for RFP (Date)**	RFP Issued (Date)	Proposals Received (Date)	Evaluation (Date)	No Objection by the Bank (Date)**	Contract Value & Date of award	Contract Completion (Date)
1	2	3	4	5	6	7	8	9	10	11	12	13	14

◆ RFP (Request for Proposal): Same as 'Bid Document' #Technical and Financial

\*\* Applicable in case of 'Prior Review' by Bank

@ State whether (i) Single firm or individual; or (ii) Competitive. If Competitive, then state whether Quality and Cost Based Selection (QCBS) or Quality Based Selection (QBS)

2.17 Provide any other information related to special academic achievements as given in eligibility proposal of the Institution.

**TECHNICAL EDUCATION QUALITY IMPROVEMENT PROGRAMME (TEQIP)  
(PHASE-II)**

**FORMAT FOR  
INSTITUTIONAL DEVELOPMENT PROPOSAL  
for**

**Sub-Component 1.2 : Scaling-up Post Graduate education and  
demand-driven R&D&I**

## 1. INSTITUTIONAL BASIC INFORMATION

### 1.1 Institutional Identity

- Name of the Institution: \_\_\_\_\_
- Is the institution AICTE approved ? : Yes/No
- Furnish AICTE approval no. :
- Type of Institution : Govt. funded/ Govt. aided/Private unaided / Autonomous / other
- Status of Institution : Autonomous Institute as declared by University / Non-Autonomous / Deemed University / Constituent College
- Names of Head of Institution and Project Nodal Officers

Head & Nodal Officer	Name	Phone Number	Mobile Number	Fax Number	E-mail Address
Head of the Institution					
Project Nodal Officers for:					
Academic Activities					
Civil Works including Environment Management					
Procurement					
Financial Aspects					
Equity Assurance Plan					

### 1.2 Academic Information

- **Engineering Programmes offered in Academic year 2009-10**

S. No	Title of Programme	Level (UG, PG, PhD)	Duration (Years)	Year of starting	AICTE Sanctioned Annual Intake	Total Student strength

- **Accreditation Status of UG Programmes:**

Title of UG Programmes being offered	Whether eligible for accreditation or not	Whether accredited as on 31 <sup>st</sup> Dec. 2009	Whether "Applied for" as on 31 <sup>st</sup> Dec 2009

- **Accreditation Status of PG Programmes:**

Title of PG Programmes being offered	Whether eligible for accreditation or not	Whether accredited as on 31 <sup>st</sup> Dec. 2009	Whether "Applied for" as on 31 <sup>st</sup> Dec 2009

**1.3 Faculty Status (Regular/On-Contract Faculty as on December 31, 2009)**

Faculty Rank	No. of Sanctioned Regular Post	Present Status : Number in Position by Highest Qualification												Total Number of regular faculty in Position	Total Vacancies	Total Number of contract faculty in Position
		Doctoral Degree				Masters Degree				Bachelor Degree						
		Engg. Discipline		Other Discipline		Engg. Discipline		Other Discipline		Engg. Discipline		Other Discipline				
		R	C	R	C	R	C	R	C	R	C	R	C			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15= (3+5+7+9+11+13)	16= (2-15)	17= (4+6+8+10+12+14)
Prof																
Asso Prof																
Asst Prof																
Lec																
Total																

Prof = Professor, Asso Prof = Associate Professor, Asst Prof = Assistant Professor, Lec=Lecturer, R=Regular, C=Contract

**1.4 Baseline Data**

S. No.	Parameters	
1	Total strength of students in all programmes and all years of study in the year 2009-10	
2	Total women students in all programmes and all years of study in the year 2009-10	
3	Total SC students in all programmes and all years of study in the year 2009-10	
4	Total ST students in all programmes and all years of study in the year 2009-10	
5	Total OBC students in all programmes and all years of study in the year 2009-10	
6	Number of fully functional P-4 and above level computers available for students in the year 2009-10	
7	Total number of syllabus Text books and Reference books available in library for UG & PG students in the year 2009-10	
8	% of UG students placed through campus interviews in the year 2008-09	
9	% of PG students placed through campus interviews in the year 2008-09	
10	% of High quality undergraduates (>75% marks) in the year 2008-09	
11	% of High quality post graduates (>75% marks) in the year 2008-09	
12	Number of research publications in Indian refereed Journals in the year 2008-09	
13	Number of research publications in International refereed Journals in the year 2008-09	
14	Number of Patents obtained in the year 2008-09	
15	Number of Patents filed in the year 2008-09	
16	Number of sponsored research projects completed in the year 2008-09	
17	The transition rate of students in percentage from 1 <sup>st</sup> year to 2 <sup>nd</sup> year in the year 2008-09 for : (i) all students (ii) SC (iii) ST (iv) OBC	
18	IRG from students fee and other charges in the year 2008-09 (Rs. in lacs)	
19	IRG from commercialization of R & D products, consultancy & other sources in the year 2008-09 (Rs. in lacs)	
20	Total IRG in the year 2008-09 (Rs. in lacs)	
21	Total recurring expenditure in the year 2008-09 (Rs. in lacs)	
22	Number of Joint publications with National authors in the year 2008-09	
23	Number of Joint publications with International authors in the year 2008-09	
24	Number of R & D products commercialized in the year 2008-09	
25	Number of Joint M.Tech programmes with institutions undertaken in the year 2008-09	
26	Number of joint M.Tech programmes with Industry undertaken in the year 2008-09	
27	Number of joint Ph. D with institutions undertaken in the year 2008-09	
28	Number of Joint Ph. D. with Industry undertaken in the year 2008-09	
29	Number of Joint consultancies undertaken with Institutions in the year 2008-09	
30	Number of Joint consultancies undertaken with Industry in the year 2008-09	

**1.5 Institutions to be eligible for participation in the project under the sub-component 1.2 must fulfill the following benchmarks:**

S. No.	Attainment Parameters	Bench-mark values	Institution's response (Yes/No)
1.	Does the Institution agree to implement all academic and non-academic reforms given as below: <ul style="list-style-type: none"> <li>• Implementation of Curricular Reforms</li> <li>• Exercise of autonomies</li> <li>• Establishment of Corpus Fund, Faculty Development Fund, Equipment Replacement Fund and Maintenance Fund</li> <li>• Generation, retention and utilization of revenue generated through variety of activities</li> <li>• Institutions to fill-up all existing teaching and staff vacancies</li> <li>• Delegation of decision making powers to senior functionaries with accountability</li> <li>• Improve Student Performance Evaluation</li> <li>• Improvement performance appraisal of faculty by students</li> <li>• Provide faculty incentive for continuing education (CE), consultancy and R&amp;D</li> <li>• Obtaining accreditation</li> </ul>	Yes	
2.	Availability of academic autonomy as recognized by UGC for both UG and PG programmes	Yes	
3.	Presence of Board of Governors with an eminent academican or industrialist as the Chairperson	Yes	
4.	Percentage of eligible UG programmes accredited or applied for	60%	
5.	Percentage of eligible PG programmes accredited or applied for	40%	
6.	Cumulative number of Ph.Ds produced in the last three academic years (2006-07, 2007-08, 2008-09) or Cumulative number of MTech. produced in the last three academic years (2006-07, 2007-08, 2008-09)	5  50	
7.	Faculty positions filled on regular full time basis as percentage of total faculty positions sanctioned in accordance with the AICTE prescribed student to faculty ratio	65%	
8.	Percentage of regular faculty with PhD in engineering* as percentage of total faculty	15%	

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\* PhD in engineering and science for Special Category States

## 2. INSTITUTIONAL DEVELOPMENT PROPOSAL (IDP)

- 2.1 Give the executive summary of the IDP (maximum ½ page)
- 2.2
  - Provide the details of SWOT analysis carried out.
  - Based on SWOT analysis, provide the strategic plan developed for Institutional development.
  - Attach the summary of SWOT analysis and show how the results of SWOT analysis are linked to the key activities proposed in the proposal.
- 2.3 State the specific objectives and expected results of your proposal in terms of, “Scaling-up post graduate education and demand-driven R&D&I”. These objective and results should be linked to the SWOT analysis.
- 2.4 Provide an Acton Plan for scaling-up enrollment into Masters and Doctoral Programmes (include measures to attract qualified students and maintain high quality standards)
- 2.5 Provide an Action Plan for improving collaboration with industry.
- 2.6 Provide an Action Plan for :
  - quantitatively increasing and qualitatively improving research by their faculty individually, jointly and collaboratively,
  - developing research interest among undergraduate students, and
  - collaborating with Indian and foreign institutions in academic and research area through MoUs
- 2.7 Provide Faculty Development Plan from the first 18 months to achieve improved competence based on Training Needs Analysis (TNA) in the following areas. Attach the summary of Training Needs Analysis carried out.
  - Basic and advanced pedagogy training
  - Subject / domain knowledge enhancement
  - Attendance in activities such as workshops, seminars, etc.
  - Improvement in faculty qualifications.
  - Improving research capabilities
- 2.8 Provide an Action Plan for training technical and other staff in functional areas.
- 2.9 Describe the relevance and coherence of Institutional Development Proposal with State’s/National (in case of CFIs) Industrial / Economic Development Plan.
- 2.10 Describe briefly the participation of departments/faculty in the proposal preparation and implementation.
- 2.11 Describe the Institutional Project implementation arrangements.
- 2.12 Provide an Institutional budget in Table No.1

**Table-1 : INSTITUTIONAL BUDGET**

(Rs. In Crore)

S. No	Activities	Project Life Allocation	Project Financial year			
			2010-11	2011-12	2012-13	2013-14
1	Faculty and Staff development					
2	Institutional management capacity enhancement					
3	Academic support for weak students					
4	Modernization and strengthening of PG laboratories					
5	Providing Assistanceship for Masters and Doctoral students					
6	Establishing Laboratory for new PG Programmes					
7	Enhancement of Research and Development activities					
8	Modernization and strengthening of Libraries and / or access to knowledge source					
9	Enhanced interaction with industry					
10	Implementation of Institutional reforms					
11	Refurbishment of infrastructure					
12	Incremental Operating Cost					

2.13 Provide categorywise expenditure details in Table 2.

**Table-2 : CATEGORYWISE EXPENDITURE DETAILS**

(Rs. In Crore)

S. No	Components	Project Life Allocation	Project Financial year			
			2010-11	2011-12	2012-13	2013-14
1	Equipment					
2	Furniture					
3	Books & LR's & Softwares					
4	Civil Works					
5	Assistanceship					
6	Training / workshops to be conducted					
7	Faculty Development					
8	Institutional management capacity enhancement					
9	Consultancies secured					
10	Incremental Operating Cost					
	<b>TOTAL</b>					

**Note :** Total cost per year in Table-1 & Table-2 should match with each other.

2.14 (a) Provide the targets against the deliverables given in Table 3.

**Table-3 : INSTITUTIONAL PROJECT TARGETS**

S. No.	Deliverables	Baseline	Targets to be achieved	
			At the end of 2 years	By Project closing
1	Number of students registered for (a) Masters in Engineering Programme (b) Doctoral Programme in Engineering			
2	Revenue from externally funded R&D projects and consultancies in total revenue (Rs. in lacs)			
3	Number of (a) research publications in refereed • National journals • International journals (b) citations (c) patents obtained / filed (d) books (e) No. of R&D projects commercialized			
4	Number of co-authored publication in refereed journals (a) National (b) International			
5	Student credentials (a) campus placement rate of • UG students • PG students (b) average salary of placement package for (Rs. in lacs) • UG students • PG students			
6	Number of collaborative programmes with industry			
7	Accreditation Status		75% of eligible UG programmes and 60% of eligible PG programmes	100% accreditation for UG & PG programmes
8	Vacancy position for faculty and staff		Vacancy reduced to 5% or less	Zero vacancy
9	Number of regular faculty with PhD in engineering disciplines			
10	Any other (maximum three)			
(i)				
(ii)				
(iii)				

(b) Describe the plan in detail for achievement of the above targets enumerated in Table-3.

2.15 Indicate the action plan to ensure that the Project activities would be sustained after the end of the Project.

2.16 Provide procurement plan for the first 18 months for Goods / Civil Works in Table-4 and Consultancy Services including Pedagogical Training in Table-5 with budget and timeframe.

**Table-4 : 18 MONTHS PROCUREMENT PLAN FOR WORKS / GOODS\* FOR PROJECT**

Package No.	SL No.	Description of Works/ Goods	Estimated Cost (Rs)	Method of Procurement	Design/ Investigation completed/ Specification finalization (Date)	Estimate Sanctioned (Date and Value)	Preparation of Bid Document (Date)	Bank's No Objection to Bidding Document (Date)**	Bids		Contract Award (Date/ Value)	Date of completion of Contract
									Invitation (Date)	Opening (Date)		
1	2	3	4	5	6	7	8	9	10	11	12	13
1												
2												
3												

\* Goods covers Equipment, Furniture and Books & Learning Resources

\*\* Applicable in case of 'Prior Review' by Bank.

Note: For Column 5, state ICB/NCB/Direct Contracting/Shopping as appropriate

**Table-5 : 18 MONTHS PROCUREMENT PLAN FOR CONSULTANCY SERVICES FOR PROJECT**

SL No.	Description of Services	Estimated Cost (Rs)	Methods of Selection @	TOR Finalization (Date)	Advertisement (Date)	◆ RFP Final Draft to be forwarded to the Bank (Date)**	No Objection from Bank for RFP (Date)**	RFP Issued (Date)	Proposals Received (Date)	Evaluation (Date)	No Objection by the Bank (Date)**	Contract Value & Date of award	Contract Completion (Date)
1	2	3	4	5	6	7	8	9	10	11	12	13	14

◆ RFP (Request for Proposal): Same as 'Bid Document' #Technical and Financial

\*\* Applicable in case of 'Prior Review' by Bank

@ State whether (i) Single firm or individual; or (ii) Competitive. If Competitive, then state whether Quality and Cost Based Selection (QCBS) or Quality Based Selection (QBS)

2.17 Provide any other information related to special academic achievements as given in eligibility proposal of the Institution.

**TECHNICAL EDUCATION QUALITY IMPROVEMENT PROGRAMME (TEQIP)  
(PHASE-II)**

**PROPOSAL FORMAT  
for  
Sub-Sub-Component 1.2.1 : Establishing Centers of Excellence (CoE)  
(Applicable for institutions selected under sub-component 1.2)**

Name of the Institution : \_\_\_\_\_

Name of the Center of Excellence to be established : \_\_\_\_\_

Specific Area(s) of excellence : \_\_\_\_\_

**Note :** Institutions desirous for having more than one Centers of Excellence should submit the separate proposals accordingly.

## PROPOSAL FOR ESTABLISHING CoEs

### 1. Institutional Identity

1.1 Name of the Institution: \_\_\_\_\_

1.2 Type of Institution : Govt. funded/ Govt. aided/ Private unaided / Autonomous / Other

1.3 Status of Institution: Autonomous Institute as declared by University / Non-Autonomous / Deemed University / Constituent College

1.4 Does the institution have any CoEs?: Yes/No

If yes, write the name of the department and specific areas of excellence:

\_\_\_\_\_

1.5 Name of the CoE to be established : \_\_\_\_\_

1.6 Specific Area of excellence: \_\_\_\_\_

1.7 Names of Head of Institution and CoE Coordinator

Head & Coordinator	Name	Phone Number	Mobile Number	Fax Number	Email Address
Head of the Institution					
CoE Coordinator					

### 2. Eligibility Criteria

Institutions to be eligible under the sub-sub-component 1.2.1 must fulfill the following benchmarks:

S. No.	Attainment Parameters	Benchmark values	Institutional Response (Yes / No)
1	Availability of academic autonomy	Yes	
2	Percentage of eligible UG programmes accredited or applied for	75%	
3	Percentage of eligible PG programmes accredited or applied for	60%	
4	Cumulative Number of PhDs produced in the last three academic years (2007-08, 2008-09, 2009-10) in the departments participating for establishing CoEs	12	
5	Faculty positions filled on regular full time basis as percentage of total faculty positions sanctioned in accordance with the AICTE prescribed student to faculty ratio in the departments participating for establishing CoEs	70%	
6	Percentage of regular faculty with PhD in engineering as percentage of total faculty	20	
7	Number of sponsored Research projects completed in the last three academic years (2007-08, 2008-09, 2009-10)	07	

### 3. Institutional plan for establishing CoEs

- 3.1 Give the executive summary of the proposal for establishing CoE (maximum ½ page)
- 3.2
- Provide the details of SWOT analysis carried out.
  - Based on SWOT analysis, provide the strategic plan for establishment of CoE.
  - Describe academic and research achievements / credentials of faculty to be involved in CoE activities.
  - Give a brief review of literature on the specific areas of CoE.
- 3.3 State the specific objectives and expected results of your proposal in terms of, “Establishing Centers of Excellence”. These objective and results should be linked to the SWOT analysis.
- 3.4 Give the generic and specific areas selected for CoE.
- 3.5 Give an Action Plan for the proposed research areas and the results to be achieved, indicate the collaborative arrangements made / under discussion with industries and research institutions / organizations within India and abroad. Attach MoU, already signed.
- 3.6 Give an Action Plan how you will seek to ensure that the CoE research and/or activities would be sustained after the end of the project.
- 3.7 Give an Action Plan how you intend to communicate the research findings, R&D outcome, and the use of CoE facilities to a wider audience.
- 3.8 Describe the benefits likely to accrue to the institution and the society out of CoEs.
- 3.9 Provide budget for establishing Center of Excellence in Table-1.

**Table-1 : INSTITUTIONAL BUDGET**

(Rs. In Crore)

S. No	Activities	Project Life Allocation	Project Financial year			
			2010-11	2011-12	2012-13	2013-14
1	Industry collaborations for applicable thematic research					
2	Converting innovative ideas into projects in close collaboration with both private and public sector industries					
3	Collaborative activities with national/international associations					
	<b>TOTAL</b>					

- 3.10 Give an Action Plan for valorization and commercialization of research results that may lead to innovation.

3.11 Provide category wise expenditure details in Table-2.

**Table-2 : CATEGORY WISE EXPENDITURE DETAILS**

(Rs. In Crore)

S. No	Components	Project Life Allocation	Project Financial year			
			2010-11	2011-12	2012-13	2013-14
1	Equipment					
2	Furniture					
3	Books & LR&S & Softwares					
4	Civil Works					
5	Assistanceship					
6	Training / workshops to be conducted					
7	Faculty Development					
8	Institutional management capacity enhancement					
9	Consultancies secured					
10	Incremental Operating Cost					
	<b>TOTAL</b>					

**Note :** Total cost per year in Table 1 & Table 2 should match with each other.

3.12 Provide a plan for achieving the incremental Institutional project targets against the deliverables given in Table 3 in addition to the targets under sub-component 1.2

**Table-3 : INCREMENTAL INSTITUTIONAL PROJECT TARGETS**

S. No.	Deliverables	Baseline	Targets to be achieved	
			At the end of 2 years	By Project closing
1	Number of international exchange programmes			
2	Number of individual publications in peer-reviewed journals: (a) National (b) International			
3	Number of co-authored publications in peer-reviewed journals with authors: (a) National (b) International			
4	Number of exchange of research students with collaborating institutions: (a) National (b) International			
5	Number of exchange of research faculty with collaborating institutions: (a) National (b) International			
6	Number of patents obtained			
7	Number of patents filed			
8	Number of external R&D projects			
9	Number of Industry Chairs secured			
10	Number of MoUs with academia: (a) National (b) International			
11	Number of MoUs with industry: (a) National (b) International			
12	Number of products, research and services commercialized			
13	Any other (maximum three)			
(i)				
(ii)				
(iii)				

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## GUIDELINES ON STRENGTHS, WEAKNESSES, OPPORTUNITIES AND THREATS (SWOT) ANALYSIS

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### 1. INTRODUCTION:

SWOT, is an analysis method, which is used in strategic planning for the institutions and consists of the initial letters of concepts of Strengths, Weaknesses, Opportunities and Threats.

Strategic planning is a process in which future aims are determined together with the stakeholders and responsibilities & sources are allocated in accordance with these future aims. It is a process between the points an institution stands presently and the points it tries to reach in a certain period of time. The concept of strategic planning is closely related with the concept of foresight. In this regard strategic planning can be considered as the collection of systematic efforts of experts for the best choice of the future.

The aim of strategic planning is to produce planned facilities, embody the appointed policies, follow the application efficiently and take the initiative and provide the effective participation. In the process of strategic planning, some of the fundamental questions are needed to be answered. Those are “Where are we?”, “How can we reach our desired goal? And “How can we evaluate our success?”

Institutions are expected to make a strategic planning to gain a better perception of on going quest for quality education and fulfilling its mission and realizing its vision.

### 2. SALIENT POINTS :

- As a medium of administration, SWOT analysis is used in making a plan, defining a problem and also solution of it, making a strategy and giving an analytic decision. It is a tool for auditing an institution and its environment. It is a first stage of planning which helps to focus on key issues.
- The role of SWOT analysis is to take the information from the environmental scan and separate it into internal and external issues. SWOT analysis determines if the information indicates something that will assist the institution in accomplishing its objectives or if it indicates an obstacle that must be removed or minimized to achieve desired results.
- SWOT analysis is scalable, collaborative, integrateable, simple and cost efficient.

### 3. STEPS TO CONDUCT A SWOT ANALYSIS:

#### (i) Teamwork and Stakeholder Participation:

The first step involves setting up a team of the key stakeholders of the Institution to carry out the consultations/brainstorming. The team essentially has to be participatory and should encourage all participants to be candid and constructive. Involving maximum students, faculty and staff in the brainstorming will help to bring out information, determine the most important Strengths, Weaknesses, Opportunities and Threats, and prioritize the actions.

The brainstorming may be carried out in separate groups of students, using an appropriate facilitator for each group. Alternatively, the internal Strengths and Weaknesses could be identified separately by each group and brought together to discuss the external Opportunities and Threats, and the Strategic Planning. For a very large institution, the SWOT analysis may be done department-wise to reveal the Strengths, Weaknesses, Opportunities and Threats.

**ii) Data Analysis:**

Collect all the participants in a room with a blackboard/flip charts/computer projection. Explain the objective and process of the exercise to them. Encourage a congenial atmosphere for a free flow of information, insisting on focus, specificity and brevity. The facilitator should keep the discussion going and a rapporteur should be writing the points on the board/charts/computer for all to see.

Collectively list all strengths that exist. Then list all weaknesses by avoiding modesty and over-estimation. Be realistic.

List all opportunities that exist for the future. Then list all threats that exist in the future.

Data, which is gained through either in formal or informal information, can be used in the process of strategic planning. By this way, with the help of SWOT analysis, it is easy to determine institution's present situation and whether that institution functions properly or not.

The institution need to review the SWOT analysis and do the strategic planning to meet the objectives, addressing each of the four areas.

**iii) Strategic Planning:**

**a. STRENGTHS:** The Strengths can be identified by thinking in terms of capabilities, recognition, competitive advantages, resources, assets, people (experience, knowledge, their culture, values, attitudes and behaviors), innovative aspects, marketing, quality of programmes, location, accreditations, qualifications, certifications, and processes/systems through the following:

- Resources and capabilities that can be used as a basis for developing a competitive advantage
- Strengths should be realistic and not modest
- Strengths should answer:
  1. Advantages of the institution
  2. The activities the institution can plan to do better
  3. The relevant resources on which the institution has access to.
  4. Vision of others about institutions strengths.
  5. Unique Selling Points (USPs)
  6. Financial reserves of the institutions along with returns from fees and other sources

**Method to use each strength:** The strengths would normally support the achievement of the objective, may be useful to leverage other benefits.

**b. WEAKNESSES:** The Weaknesses can be identified by thinking in terms of disadvantages, gaps in capabilities; lack of competitive strength, reputation, financial, timescales/deadlines, weak core activities, distractions, morale, leadership, accreditations, continuity, robustness and processes/systems through the following:

- Internal forces that could serve as a barrier to maintain or achieve a competitive advantage, a limitation, fault or defect of the institution.
- Weaknesses should be truthful so that they may be overcome as quickly as possible.
- Weaknesses should answer:
  1. The possibility of improvements
  2. Weak processes and systems and inadequate facilities
  3. Lack of competitive strengths
  4. Lack of industry/network partners
  5. Plan predictability
  6. Financial situation, cash flow and cash-drain of the institution
  7. Means to perform in a more effectively and efficient manner changes in the institutions to help them function more efficiently

**Method to stop each weakness :** The institutions need to identify the weaknesses and take remedial measures to overcome them.

**c. OPPURTUNITIES:** The Opportunities can be identified by thinking in terms of market developments, competitor vulnerabilities, industry trends, and geographical partnerships through the following:

1. The good opportunities facing us
2. The interesting trends we are aware of
3. Technology development and innovation
4. Growing student demand
5. Increased attraction for qualified future faculty
6. Research in niche areas
7. Geographical expansion
8. Employment and industry trends
9. Unique Selling Points (USPs)
10. Industry Institution partnership
11. Innovations, product development, patent, business development
12. Global influences, opportunities

**Method to exploit each opportunity.** These are attractive external factors that can help the Institution develop and improve. They need to be prioritized on the basis of their benefits to the institution in the short (1-2 years), medium (4-5 years) and long terms (8-10 years).

**d. THREATS:** The Threats can be identified by thinking in terms of external forces that could inhibit the maintenance or attainment of a competitive advantage or any unfavorable situation in the external or internal environment that is potentially damaging present and future through the following:

1. Obstacles faced by the Institution - Social, Political and Managerial
2. Doings of the competitors
3. Change in the required specifications for services of the Institution
4. Threats of changing technology threatening
5. Declining supply of qualified faculty
6. Loss of key staff
7. Declining quality of students
8. Difficulty of sustaining internal capabilities
9. Lack of new ideas and access to fast-changing technology
10. Lack of industry-Institution partnership
11. Financial status and sustainable financial backing of the Institution

**Method to defend against Threats:** These are external factors beyond the Institution's control, but the Institution must have a 'Plan' to address the ones that have a high probability of occurring and present a serious risk to achievement of the objective. If there are sufficient Strengths and Opportunities in the institution, all the risks need not be addressed.

#### **4. SWOT Analysis Limitations:**

The classification of some factors as Strengths or Weaknesses, or as Opportunities or Threats is somewhat arbitrary. For example, a particular institution's culture can be either Strength or a Weakness. A technological change can be either a Threat or an Opportunity. Perhaps what is more important than the superficial classification of these factors is the institutions awareness of them and its development of a strategic plan to use them to its advantage.

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**GUIDELINES ON TRAINING NEEDS ANALYSIS (TNA)**


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**1. Introduction :**

Training Needs Analysis (TNA) is a series of activities to define the gap between the current and the desired individual and organizational performances. It identifies the areas where both individuals and an organization would benefit from training in order to become more effective at achieving the individuals' own objectives and the objectives of the organization.

TNA is a systematic process based on specific information converging techniques. It proceeds in stages, with the findings of one stage helping to shape the next one. Each particular stage requires its own mix of observations and analysis. It is not a one-time event but organizations need to carry out it ideally every year and the training/development plan resulted from it is to be implemented in the following year. TNA gives performance improvement, introduction of new system, task or technology and organizational benefits.

**2. Scope :**

- 1) All class IV staff
- 2) All support staff and technical staff
- 3) All faculty (including contractual and ad-hoc)
- 4) All Heads of the Departments and Deans
- 5) All administrative staff (including finance personnel)
- 6) Principal/Director

**3. Suggested training domains :**

S. No	Staff/Faculty Category	Possible Areas of Training/Development
1	Class IV staff	Attitudinal and mind-set change, Personality development, Motivation, Qualification upgradation
2	Support Staff	Attitudinal and mind-set change, Personality development, Communication skills, Motivation, Office modernization, Qualification upgradation, Advance learning in their relevant occupational areas, Other felt-needs
3	Technical Staff	Attitudinal and mind-set change, Personality development, Communication skills, Motivation, Qualification upgradation, Operation & Maintenance of modern laboratory and advanced equipment, Advance learning in their relevant occupational areas, Other felt-needs
4	Faculty (including contractual and ad-hoc)	Attitudinal and mind-set change, Personality development, Communication skills, Motivation, Qualification upgradation, Effective teaching – learning (modern pedagogy) processes, Advanced subject knowledge, Advanced R&D activities, lab/workshop development, Quality management, Standard conferences, Consultancy, Other felt-needs
5	HoDs and Deans	Attitudinal and mind-set change, Personality development, Communication skills, Motivation, Qualification upgradation, Effective teaching – learning (modern pedagogy) processes, Advanced subject knowledge, Advanced R&D activities, Lab/Workshop development, Quality management, Attachment to industry and premiere R&D organizations, Consultancy, Planning & Implementation, Budgeting & Financial management, Management capacity development, Departmental/Institutional management, Other felt-needs
6	Administrative Staff (including finance personnel)	Attitudinal and mind-set change, Personality development, Communication skills, Motivation, Qualification upgradation, Institutional development management, Quality management, Management information system, Planning & Implementation, Budgeting & Financial management, Systems automation, Management capacity development, Human resource management, Other felt-needs
7	Principal/Director	Institutional development & management, Quality management, Management capacity development, Planning & Implementation, Budgeting & financial management, Extension of services, Exposure to premiere institutions/centers of excellence (national and international), Sustainability strategy, Other felt-needs

#### 4. Procedure :

4.1 All staff and faculty of the institution shall be distributed a relevant TNA proforma as indicated below:

S.No.	Staff/Faculty Category	Applicable TNA Proforma
1	Class IV Staff	Proforma - I
2	Support Staff	Proforma - II
3	Technical Staff	Proforma - III
4	Faculty (including contractual and ad-hoc)	Proforma - IV
5	HoDs and Deans	Proforma - V
6	Administrative Staff (including finance personnel)	Proforma - VI
7	Principal/Director	Proforma - VII
8	Consolidated Departmental Training/Development Plan	Proforma - VIII
9	Consolidated Institutional Training/Development Plan	Proforma - IX

4.2 Following information may be used by the individuals for exercising TNA:

- 1) Institution's Strategic Development Plan
- 2) Institution's (recent) SWOT analysis
- 3) Previous years' Development/Training Plans
- 4) Seniors' and/or Peers' feedback
- 5) Students' feedback
- 6) Feedback on previously attended training programmes
- 7) Any other relevant feedback

4.3 Each staff member and faculty shall analyze his/her current knowledge & skills, and the desired knowledge & skills for effective performance of his/her current job profile as well as perceived future/prospective job profile. To take-up the exercise of TNA, staff and faculty are suggested to use the information/feedback as mentioned at sub-head 4.2 (in case such information/feedback is not available they shall have discussions with their students/peers/seniors/HoD/Principal/Director). While analyzing the training needs, a staff member shall align his/her personal development objectives with those of the department.

In cases of training in specialized subject areas and R&D skills faculty are expected to have communication with the organization/s where such trainings are available in order to furnish information pertaining to the duration, period (tentative date) and trainer organization, in the TNA proforma (this will essentially be helpful to HoD and Principal/Director in finalizing a plan for deputing staff and faculty in a phased manner).

All staff members and faculty shall submit the duly filled-in TNA proforma indicating training needs along with their development objectives, to the HOD within three weeks.

4.4 HoDs shall review the department's individual filled-in TNA proforma, make an attempt to align the individual development aspirations with the department's objectives/priorities, and consolidate into a Departmental Training/Development Plan (Proforma-VIII), including HoDs' own training/development needs.

HoDs shall submit within two weeks, the Departmental Training/Development Plan (Proforma-VIII) along with an undertaking that the same is resulted from an actual needs analysis of the department, for Principal's/Director's approval.

4.5 Principal/Director will review all departments'/Sections' training/development plans, make an attempt to align it with the institution's objectives/priorities, and consolidate into an Institutional Training/Development Plan (Proforma-IX), including Principal's/Director's own training/development needs.

4.6 Principal/Director will recommend the Institutional Training/Development Plan (Proforma-IX) along with an undertaking that the same is resulted from an actual Training Needs Analysis of the institution, for BoG's or competent authority's approval.

**5. Convergence of TNA :**

The exercise of TNA at various levels finally converge into an Institutional Training/Development Plan, comprises a short term (upto three months) training/development plan and a long term (above three months) training/development plan.

**6. Proforma for TNA :**

Various proforma are as follows:

## TRAINING NEEDS ANALYSIS PROFORMA - I : FOR CLASS IV STAFF

Name of Department : .....

Name of the Staff Member : .....

Designation : .....

Employed Since : .....

Age : .....

Highest Qualification : .....

A. Jobs being currently performed:

- 1) .....
- 2) .....
- 3) .....

B. Previous trainings, if undergone:

	Areas of training/development	Duration (Days)	When (Date)
1			
2			
3			

C. Indicate your desire for training/development:

	Areas of training/development	Duration (Days)	Convenient (tentative) Date
1			
2			
3			

Signature with date  
(Name of the Staff Member)

## TRAINING NEEDS ANALYSIS PROFORMA - II: FOR SUPPORT STAFF

Name of Department : .....

Name of the Staff Member : .....

Designation : .....

Employed Since : .....

Age : .....

Highest Qualification : .....

Area of expertise, if any : .....

**A. Jobs being currently performed:**

- |         |         |
|---------|---------|
| 1 ..... | 4 ..... |
| 2 ..... | 5 ..... |
| 3 ..... | 6 ..... |

**B. Previous trainings, if undergone during last two years:**

	Areas of training/development	Duration (Days)	When (Date)
1			
2			
3			
4			

**C. Your career development objectives:**

- 1) .....
- 2) .....
- 3) .....

**D. Indicate your desire for training/development:**

	Areas of training/development	Duration (Days)	Convenient (tentative) Date
1			
2			
3			
4			

Signature with date  
(Name of the Support Staff Member)

**TRAINING NEEDS ANALYSIS PROFORMA – III : FOR TECHNICAL STAFF**

Name of Department : .....

Name of the Staff Member : .....

Designation : .....

Employed Since : .....

Age : .....

Highest Qualification : .....

Area of expertise, if any : .....

A. Jobs being currently performed:

- |         |         |
|---------|---------|
| 1 ..... | 4 ..... |
| 2 ..... | 5 ..... |
| 3 ..... | 6 ..... |

B. Previous trainings, if undergone during last two years:

	Areas of training/development	Duration (Days)	When (Date)
1			
2			
3			
4			

C. Your career development objectives:

- 1) .....
- 2) .....
- 3) .....

D. Indicate your desire for training/development:

	Areas of training/development	Duration (Days)	Convenient (tentative) Date
1			
2			
3			
4			

Signature with date  
(Name of the Technical Staff Member)

**TRAINING NEEDS ANALYSIS PROFORMA - IV: FOR FACULTY  
(INCLUDING AD-HOC AND CONTRACTUAL)**

Name of the Department : .....

Name of the Faculty Member : .....

Designation : .....

Employed Since : .....

Nature of Employment : Regular/Ad-hoc/Contractual/Other : .....

Age : .....

Highest Qualification : .....

Area of expertise, if any : .....

**A. Jobs being currently performed:**

- |         |         |
|---------|---------|
| 1 ..... | 5 ..... |
| 2 ..... | 6 ..... |
| 3 ..... | 7 ..... |
| 4 ..... | 8 ..... |

**B. Previous trainings, if undergone during last two years (Use additional sheet if required):**

	Areas of training/development	Duration (Days)	When (Date)
1			
2			
3			
4			

**C. Objectives / Priorities of the Department:**

- |         |         |
|---------|---------|
| 1 ..... | 4 ..... |
| 2 ..... | 5 ..... |
| 3 ..... | 6 ..... |

**D. Your career development objectives:**

- 1).....
- 2).....
- 3).....

E. Indicate your desire for training/development (Use additional sheet if required):

	Areas of Training/ Development	Duration (Days)	Convenient (tentative) Date	Trainer Organization
1				
2				
3				
4				
5				

Signature with date  
(Name of the Faculty)

**TRAINING NEEDS ANALYSIS PROFORMA - V: FOR HoDS and DEANS**

Name of the Department/School : .....

Name of the HoD/Dean : .....

Employed Since : .....

Nature of Employment : Regular/Ad-hoc/Contractual/Other: .....

Age : .....

Highest Qualification : .....

Area of expertise, if any : .....

**A. Jobs being currently performed:**

- |   |       |   |       |
|---|-------|---|-------|
| 1 | ..... | 5 | ..... |
| 2 | ..... | 6 | ..... |
| 3 | ..... | 7 | ..... |
| 4 | ..... | 8 | ..... |

**B. Previous trainings, if undergone, during last two years (Use additional sheet if required):**

	Areas of training/development	Duration (Days)	When (Date)
1			
2			
3			
4			

**C. Objectives / Priorities of the Institution:**

- |   |       |   |       |
|---|-------|---|-------|
| 1 | ..... | 5 | ..... |
| 2 | ..... | 6 | ..... |
| 3 | ..... | 7 | ..... |

D. Your career development objectives:

1).....

2) .....

3) .....

E. Indicate your desire for training/development (Use additional sheet if required):

	Areas of Training/ Development	Duration (Days)	Convenient (tentative) Date	Trainer Organization
1				
2				
3				
4				
5				

Signature with date  
(Name of the HoD/Dean)

**TRAINING NEEDS ANALYSIS FORMAT - VI: FOR ADMINISTRATIVE STAFF  
(INCLUDING FINANCE PERSONNEL)**

Name of the Section : .....

Name of the Staff Member : .....

Designation : .....

Employed Since : .....

Nature of Employment : Regular/Ad-hoc/Contractual/Other: .....

Age : .....

Highest Qualification : .....

Area of expertise, if any : .....

**A. Jobs being currently performed:**

1 .....	4 .....
2 .....	5 .....
3 .....	6 .....

**B. Previous trainings, if undergone, during last two years (Use additional sheet if required):**

	Areas of training/development	Duration (Days)	When (Date)
1			
2			
3			

**C. Objectives / Priorities of the Section:**

1 .....	3 .....
2 .....	4 .....

D. Your career development objectives:

- 1).....
- 2) .....
- 3) .....

E. Indicate your desire for training/development (Use additional sheet if required):

	Areas of Training/ Development	Duration (Days)	Convenient (tentative) Date	Trainer Organization
1				
2				
3				
4				
5				

Signature with date  
(Name of the Administrative/Finance Staff Member)

**TRAINING NEEDS ANALYSIS FORMAT - VII: FOR PRINCIPAL/DIRECTOR**

Name of the Principal/Director : .....

Employed Since : .....

Nature of Employment : Regular/Ad-hoc/Contractual/Other: .....

Age : .....

Highest Qualification : .....

Area of expertise, if any : .....

**A. Jobs being currently performed:**

- |         |         |
|---------|---------|
| 1 ..... | 5 ..... |
| 2 ..... | 6 ..... |
| 3 ..... | 7 ..... |
| 4 ..... | 8 ..... |

**B. Previous trainings, if undergone, during last two years (Use additional sheet if required):**

	Areas of training/development	Duration (Days)	When (Date)
1			
2			
3			
4			

**C. Objectives / Priorities of the Institution:**

- |         |         |
|---------|---------|
| 1 ..... | 5 ..... |
| 2 ..... | 6 ..... |
| 3 ..... | 7 ..... |

D. Your professional development objectives:

- 1) .....
- 2) .....
- 3) .....

E. Indicate your desire for training/development (Use additional sheet if required):

	Areas of Training/ Development	Duration (Days)	Convenient (tentative) Date	Trainer Organization
1				
2				
3				
4				
5				

Signature with date  
(Name of the Principal/Director)

**TRAINING NEEDS ANALYSIS PROFORMA- VIII:  
DEPARTMENTAL TRAINING/DEVELOPMENT PLAN**

Name of the Department/Section : .....

Name of the Head of Department/Section : .....

*Note: i) Strike out whichever is not applicable. ii) Additional sheets may be used wherever required.*

**A. Details of previous training**

i) Previous trainings the support staff has undergone in last two years:

	Name of support staff member	Area of training/development	Duration (Days)	When (Date)
1				
2				
3				

ii) Previous trainings the technical staff has undergone in last two years:

	Name of technical staff member	Area of training/development	Duration (Days)	When (Date)
1				
2				
3				

iii) Previous trainings the administrative and finance staff has undergone in last two years:

	Name of administrative/ finance staff member	Area of training/development	Duration (Days)	When (Date)
1				
2				
3				

iv) Previous trainings the faculty has undergone in last two years:

	Name of support staff member	Area of training/development	Duration (Days)	When (Date)
1				
2				
3				

v) Previous trainings the HOD/Dean has undergone in last two years:

Name of the HOD/Dean	Area of training/ development	Duration (Days)	When (Date)

B. Objectives / Priorities of the Institution:

- |         |         |
|---------|---------|
| 1 ..... | 4 ..... |
| 2 ..... | 5 ..... |
| 3 ..... | 6 ..... |

C. Objectives / Priorities of the Department/Section:

- |         |         |
|---------|---------|
| 1 ..... | 4 ..... |
| 2 ..... | 5 ..... |
| 3 ..... | 6 ..... |

D. Aligning the objectives/priorities of your Department/Section and Institution with those of the individual staff and faculty, identify the areas of training/development and suitable staff and faculty to be trained/developed.

i) Class IV Staff:

	Name of staff member	Area of training/ development	Duration (Days)	Convenient (tentative) date	Trainer organization
1					
2					
3					

ii) Support Staff:

	Name of staff member	Area of training/ development	Duration (Days)	Convenient (tentative) date	Trainer organization
1					
2					
3					

iii) Technical Staff:

	Name of staff member	Area of training/ development	Duration (Days)	Convenient (tentative) date	Trainer organization
1					
2					
3					

iv) Administrative and Finance Staff:

	Name of staff member	Area of training/development	Duration (Days)	Convenient (tentative) date	Trainer organization
1					
2					
3					

v) Faculty:

	Name of faculty	Area of training/development	Duration (Days)	Convenient (tentative) date	Trainer organization
1					
2					
3					

v) HoD/Dean:

	Name of staff	Area of training/development	Duration (Days)	Convenient (tentative) date	Trainer organization

**UNDERTAKING**

This is to certify that an actual training needs analysis has been taken by the department's staff and faculty, and that the Department's training/development plan as described above is based on the felt-needs of the staff and faculty aligned with the Department's objectives and priorities.

Signature with date  
(Name of the Head of the Department/Section)

**TRAINING NEEDS ANALYSIS PROFORMA- IX:  
INSTITUTIONAL TRAINING/DEVELOPMENT PLAN**

Name of the Principal/Director : .....

**A. Department/Section wise details of previous trainings**

i) Previous trainings the support staff has undergone in last two years:

	Name of support staff member	Area of training/development	Duration (Days)	When (Date)
1				
2				
3				

ii) Previous trainings the technical staff has undergone in last two years:

	Name of technical staff member	Area of training/development	Duration (Days)	When (Date)
1				
2				
3				

iii) Previous trainings the administrative/finance staff has undergone in last two years:

	Name of administrative/finance staff member	Area of training/development	Duration (Days)	When (Date)
1				
2				
3				

iv) Previous trainings the faculty has undergone in last two years:

	Name of faculty member	Area of training/development	Duration (Days)	When (Date)
1				
2				
3				

v) Previous trainings the HoD/Dean has undergone in last two years:

	Name of the HoD/Dean	Area of training/development	Duration (Days)	When (Date)

**B. Objectives / Priorities of the Institution:**

- |         |         |
|---------|---------|
| 1 ..... | 4 ..... |
| 2 ..... | 5 ..... |
| 3 ..... | 6 ..... |

C. Aligning with the Institution’s vision and mission, objectives and priorities, please list department / section wise areas wherein staff and faculty need training / development (additional seats may be used wherever required).

i) Short term (upto three months) training/development plan for Class IV Staff, Support/Technical/ Administrative/Finance Staff:

	Department/ Section	Area of Training/ development	Name of suitable staff member for training/ development	Duration (Days)	Tentative date of training/ development programme	Trainer organization
1						
2						
3						

D. Long term (above three months) training/development plan for Class IV Staff, Support/ Technical / Administrative/Finance Staff:

	Department/ Section	Area of Training/ development	Name of suitable staff member for training/ development	Duration (Days)	Tentative date of training/ development programme	Trainer organization
1						
2						
3						

E. Short term (upto three months) training/development plan for faculty:

	Department/ Section	Area of Training/ development	Name of suitable faculty for training/ development	Duration (Days)	Tentative date of training/ development programme	Trainer organization
1						
2						
3						

F. Long term (above three months) training/development plan for faculty:

	Department/ Section	Area of Training/ development	Name of suitable faculty for training/ development	Duration (Days)	Tentative date of training/ development programme	Trainer organization
1						
2						
3						

### UNDERTAKING

This is to certify that an actual training needs analysis has been taken by the Institution, and that the Institution’s training/development plan as described above is based on the felt-needs of the concerned Departments/Sections aligned with the Institution’s objectives and priorities.

Signature with date  
(Name of the Principal/Director)

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## GUIDELINES FOR INTERNATIONAL TRAVEL

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- **Introduction:**

These guidelines are framed to ensure that all international travel related to project are undertaken as per the set procedures and after obtaining the necessary approvals.

Only the PhD students, faculty, Heads of the Departments and Heads of the Project Institutions, State officials handling the Project, Directors of Technical Education, SPFU officials and MHRD / NPIU officials are eligible for international travel under the Project for the following:

- a) Presentation of papers in International seminars, conferences, etc.
- b) Faculty training at International Institutions
- c) Study and Networking Tour

- **Procedure :**

- i) Institutions need to prepare a detailed proposal containing the following:
  - a) Clear objectives of the International travel linked with the project,
  - b) Clear indication of the expected outcome of the tour and value addition,
  - c) Details of previous foreign tour attended by the prospective participants,
  - d) Daily schedule of activities to be covered,
  - e) Availability of budget and financial implications with break-up of fee charges, accommodation, other logistic arrangements and travel expenses,
  - f) Invitation letters from the visiting institutions.
- ii) A complete proposal with BoG's approval is to be submitted to NPIU through the SPFU, well in advance of the actual date of travel.
- iii) CFIs are required to submit the proposal with BoG's approval directly to NPIU, well in advance of the actual date of travel.
- iv) The SPFU will forward the proposal after necessary scrutiny to NPIU for obtaining the competent authority's approval. NPIU will process received State and Centrally funded Institutions proposals and forward to MHRD for obtaining the approval of the competent authority.
- v) NPIU will communicate to the SPFU/Centrally funded Institutions the approval of the competent authority.
- vi) In case of SPFUs, a complete proposal giving all the details as mentioned in Sr. No.(i) alongwith list of participants with their affiliation and with State Government's approval is to be submitted to NPIU, well in advance of the actual date of travel for obtaining the approval of the competent authority.

- **Important points to be noted:**

- Any international tour undertaken without competent authority's approval will not be the part of the Project and, therefore, expenditure incurred will not be eligible for reimbursement.
- Heads of Institutions should avoid travel during the end of the financial year.
- The period of Study and Networking tours should be limited to seven working days. This limit is not applicable to other activities.
- All austerity measures like discount on training fee, accommodation etc. should be availed. The travels should be undertaken only under the available cheapest restricted economic class airfare.
- The officials visiting abroad are required to prepare a detailed report of their visit, clearly specifying the gains and an action plan for implementing the feasible activities. A copy of the report of each participant should be sent to NPIU/SPFU.
- The experience should also be shared with fellow faculty of the Institution.

**List of Centrally Funded and State Institutions that Participated in  
Technical Education Quality Improvement Programme (TEQIP) Phase - I**

<b>CENTRALLY FUNDED INSTITUTIONS (18)</b>	
1	Motilal Nehru National Institute of Technology, Allahabad
2	Maulana Azad National Institute of Technology, Bhopal
3	National Institute of Technology, Calicut
4	National Institute of Technology, Durgapur
5	National Institute of Technology, Hamirpur
6	Malaviya National Institute of Technology, Jaipur
7	Dr BR Ambedkar National Institute of Technology, Jalandhar
8	National Institute of Technology, Jamshedpur
9	National Institute of Technology, Kurukshetra
10	Visvesvaraya National Institute of Technology, Nagpur
11	National Institute of Foundry & Forge Technology, Ranchi
12	National Institute of Technology, Rourkela
13	National Institute of Technology, Silchar
14	National Institute of Technology, Srinagar
15	Sardar Vallabh Bhai National Institute of Technology, Surat
16	National Institute of Technology, Karnatak, Surathkal
17	National Institute of Technology, Thiruchirapalli
18	National Institute of Technology, Warangal
<b>STATE INSTITUTIONS (109)</b>	
<b>ANDHRA PRADESH (12)</b>	
19	AU College of Engineering, Vishakhapatnam
20	Bapatla Engineering College, Bapatla
21	Govt Institute of Electronics, Secunderabad
22	JNTU College of Engineering, Kukatpally, Hyderabad
23	JNTU College of Engineering, Anantpur
24	JNTU College of Engineering, Kakinada
25	JNTU Institute of Science and Technology, Hyderabad
26	Osmania University College of Technology, Hyderabad
27	Rajiv Gandhi Memorial College of Engineering & Technology, Nandyal
28	Sreenidhi Institute of Science & Technology, Ghatkesar
29	SVU College of Engineering, Tirupati
30	University College of Engineering, Osmania University, Hyderabad
<b>GUJARAT (6)</b>	
31	DD Institute of Technology, Nadiad
32	Dr S & SS Ghandhy College of Engineering & Technology, Surat
33	Government Engineering College, Gandhi Nagar
34	Government Engineering College, Modasa
35	Govt Polytechnic, Ahmedabad
36	LD College of Engineering, Ahmedabad
<b>HARYANA (5)</b>	
37	Deen Bandhu Chottu Ram University of Science & Technology, Murthal
38	Government Polytechnic, Nilokheri
39	Guru Jambheshwar University, Hisar

40	Kurukshetra University, Kurukshetra
41	YMCA Institute of Engineering, Faridabad
<b>HIMACHAL PRADESH (3)</b>	
42	Government Polytechnic for Women, Kandaghat
43	Government Polytechnic, Hamirpur
44	Government Polytechnic, Sundernagar
<b>JHARKHAND (4)</b>	
45	<b>Birla Institute of Technology, Mesra</b>
46	BIT, Sindri
47	Government Polytechnic, Dumka
48	Government Polytechnic, Ranchi
<b>KARNATAKA (14)</b>	
49	<b>Basaveswara College of Engineering, Vidyanagar Bagalkot</b>
50	BMS College of Engineering, Bangalore
51	Dr Ambedkar Institute of Technology, Bangalore
52	Malanad College of Engineering, Hassan
53	MS Ramaiah Institute of Technology, Bangalore
54	National Institute of Technology, Mysore
55	<b>NMAM Institute of Technology, NITTE, Udupi</b>
56	Poojya Doddappa College of Engineering, Gulbarga
57	Shri Dharmasthala Manjunatheshwara College of Engineering, Dharwad
58	<b>Shri Jayachamarajendra College of Engineering, Mysore</b>
59	Siddaganag Institute of Technology, Tumkur
60	Sri Siddhartha Institute of Technology, Tumkur
61	University BDT College of Engineering, Davangere
62	<b>University of Vishweshwaraiah College of Engineering, Bangalore</b>
<b>KERALA (5)</b>	
63	College of Engineering, Chengannur
64	<b>College of Engineering, Trivandrum</b>
65	LBS College of Engineering, Kasaragod
66	Model Engineering College, Kochi
67	Sree Chitra Thirunal College of Engineering, Trivandrum
<b>MADHYA PRADESH (7)</b>	
68	<b>Jabalpur Engineering College, Jabalpur</b>
69	Kalaniketan Polytechnic, Jabalpur
70	Rajiv Gandhi Proudhyogiki Vishwavidyalaya, Bhopal
71	Rewa Engineering College, Rewa
72	Sardar Vallabh Bhai Polytechnic College, Bhopal
73	<b>Shri GS Institute of Technology &amp; Science, Indore</b>
74	Ujjain Engineering College, Ujjain
<b>MAHARASHTRA (17)</b>	
75	<b>College of Engineering, Pune</b>
76	DKTE Society's Textile & Engg. Institute, Ichalkaranji
77	Dr Babasaheb Ambedkar Technological University, Lonere
78	GH Rasoni College of Engineering, Nagpur
79	Government College of Engineering, Aurangabad
80	Government Polytechnic, Mumbai
81	Government Polytechnic, Nagpur
82	Government Polytechnic, Pune

83	Govt College of Engineering, Amravati
84	KES Rajarambapu Institute of Technology, Sakharale, Islampur, Distt. Sangli
85	<b>Mumbai University Institute of Chemical Technology, Mumbai</b>
86	Shri Guru Gobind Singhji Institute of Engineering & Technology, Vishnupuri, Nanded
87	Shri Sant Gajanan Maharaj College of Engineering, Shegaon
88	<b>Veermata Jijabai Technological Institute, Matunga, Mumbai</b>
89	Vishwakarma Institute of Technology, Pune
90	Walchand College of Engineering, Sangli
91	Yeshwantrao Chavan College of Engineering, Nagpur
<b>TAMIL NADU (11)</b>	
92	AC College of Technology, Chennai
93	<b>Alagappa Chettiar College of Engineering and Technology, Karaikudi</b>
94	Central Polytechnic College, Tharamani, Chennai
95	<b>College of Engineering, Guindy, Chennai</b>
96	DD Govt Polytechnic College for Women, Tharamani, Chennai
97	Government College of Engg, Salem
98	Government College of Engg, Tirunelveli
99	<b>Government College of Technology, Coimbatore</b>
100	Madras Institute of Technology, Chennai
101	Tamil Nadu Polytechnic College, Madurai
102	Thanthai Periyar Govt Institute of Technology, Vellore
<b>UTTAR PRADESH (10)</b>	
103	Bundelkhand Institute of Engg & Technology, Jhansi
104	Dr Ambedkar Institute of Technology for Handicapped, Kanpur
105	<b>Harcourt Butler Technological Institute, Kanpur</b>
106	Institute of Engineering & Technology, Lucknow
107	Integral University, Lucknow
108	Kamla Nehru Institute of Technology, Sultanpur
109	Madan Mohan Malviya Engg College, Gorakhpur
110	Shri Ram Murthi Smarak College of Engineering & Technology, Bareilly
111	United College of Engg & Research, Allahabad
112	Uttar Pradesh Textile Technology Institute, Kanpur
<b>UTTARAKHAND (4)</b>	
113	Dehradun Institute of Technology, Dehradun
114	Government Polytechnic, Dehradun
115	Govind Ballabh Pant Engineering College, Paurigarhwal
116	<b>Govind Ballabh Pant University of Agriculture &amp; Technology, Pantnagar</b>
<b>WEST BENGAL (11)</b>	
117	Asansol Engg College, Asansol
118	<b>Bengal Engineering &amp; Science University, Howrah</b>
119	Government College of Engineering & Ceramic Technology, Kolkata
120	Government College of Engineering & Textile Technology, Serampore
121	Haldia Institute of Technology, Haldia
122	Institute of Engineering & Management, Kolkata
123	<b>Jadavpur University, Jadavpur</b>
124	Jalpaiguri Govt Engineering College, Jalpaiguri
125	Kalyani Government Engineering College, Kalyani
126	Netaji Subhash Engineering College, Kolkata
127	<b>University College of Technology, Calcutta University, Kolkata</b>

**Legend :** Lead Institutions are shown in bold.

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## GUIDELINES ON INDUSTRY-INSTITUTION-INTERACTION CELL (IIIC)

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**Objective:**

To explore and identify common avenues of interaction with industry as per the requirements of the institution.

**Scope:**

All the institutions covered under the Project will form Industry-Institution-Interaction Cell (IIIC) to establish purposeful interaction between industry and institution.

For the Cell to function smoothly and to meet its objectives effectively, IIIC must have some core staff. The core staff should include a Coordinator, not less than Reader/ Sr. Professor from the institution who will be assisted by a project assistant and an office assistant. The Cell should meet minimum twice per semester and on the need basis. The proposed composition of the Cell is as following:

- |   |   |          |
|---|---|----------|
| 1. Director/ Principal of the Institution                 | - | Chairman |
| 2. HOD & one faculty from each department                 | - | Member   |
| 3. Two Members from Industry/ Entrepreneurs of the region | - | Member   |
| 4. Training and Placement Officer                         | - | Member   |
| 5. Coordinator of the Cell                                | - | Convener |

**Strategy :**

IIIC will be responsible for designing the roadmap for interaction with industry recognising the inherent strengths as well as the weaknesses of the institution. Thus it will be a unique and localised industry-institute-interaction development roadmap for the institutions.

The industry interaction for envisioned institutional roadmap will be facilitated by Industry–Institute Partner Promotion Cell (IIPPC) established at SPFU of the respective States.

**Suggested Activities under IIIC :**

1. To identify and facilitate Guest Lectures, Interactive Workshops, Conferences, Seminars, Brain Storming Sessions, Technical Discussions etc. with members of the Industry, outside experts, eminent personalities at regular interval.
2. To conduct Industrial Training, Orientation Courses, Industrial Visits etc for faculty and students at regular intervals.
3. To facilitate joint research work, consultancy involving faculty and students.
4. To conduct industrial exhibitions to highlight research facilities and expertise available with the Institution.
5. To facilitate for professionals from industry as visiting faculty in institutions and short or long periods deployment of faculty from institutions to industry for gaining industrial experience and/or work on projects in industry.
6. To seek and associate experts from industry in curriculum development and review.

7. To identify continuing education opportunities, short-term programmes and training needs of the industry, which the institution can provide.
8. To promote revenue generating activities for the institution like Lab Testing, Calibration, Consultancy and R&D etc.
9. To assess periodically the scientific and technological scenario/ happenings in India and abroad in order to translate it into action for taking up future R&D work.

**Deliverables :**

IIC will be responsible for the following deliverables:

- Increase in collaboration with industry
- Increased rate of campus placement of students
- Absorption of students by same industries providing industrial training
- Increase in IRG by collaborating with industry
- Increase in industrial training for students arranged by college
- Increase in utilization of college resources by industry

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## FACULTY TRAINING IN PEDAGOGY

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Development of Pedagogical Training Programmes: This activity will be organized and coordinated by the NPIU through the following steps:

- Constituting an expert group (senior faculty from TEQIP-1 NITs and well performing institutions, education technology departments/faculty from nearby IIT and universities) to identify the required elements of technology assisted pedagogical training which will result in improved quality and effectiveness of classroom and laboratory transactions both at the UG and PG levels, and in enhanced quality of out-of-classroom interaction between faculty and students.
- The identified elements of pedagogical training will be segregated into 2 modules—Basic Module and Advanced Module. Each element will be briefly described in terms of objective, and desired outcomes. The delivery mode will be kept flexible to allow for diversity and innovation in delivery, for example through enhanced use of technology. Each module will also give an outline of an end-of-course assessment to be carried out.
- These modules will be tested with a sample of students and faculty in at least 3 nearby TEQIP-I institutions, and modified as necessary. The modified modules may also be subjected to peer reviews.

Listing of Training Providers:

- Preparing Terms of Reference and an EOI format for training providers for the Basic & Advance Modules. The format will, among others, ask for the methodology to be adopted for training and assessment, brief curriculum vitae of members of the training provider's team, and indicative training fee.
- NPIU will invite Expression of Interest from training providers through: (a) newspaper advertisements and (b) requesting State directorates concerned with engineering education, and such agencies as the Indian Society for Technical Education (ISTE), Association of Indian Universities (AIU), National University for Educational Planning and Administration (NUEPA) and industry associations to alert potential training providers.
- A list of capable training providers will be prepared, subject to No Objection by the World Bank.
- This list will be made available to all SPFUs along with the EOIs as received.
- The list may be updated during the Second Year following the procedure as above.
- The above procedure will be repeated, reviewed and amended, if necessary, after 6 months of project inception for short listing of training providers.

Selection of Training Provider(s) and Conduct of Training: The SPFUs are to be responsible for facilitating pedagogical training in their institutions (both project and non-project institutions). The SPFUs may follow the following steps:

- Compile a list of institutions desirous of training on their campus in the First Year of the Project along with their location, number of participating faculty and the time slots convenient to them.

- Using the World Bank procedure for hiring consultancy services, invite proposals from the NPIU short-listed training providers and select one or more providers for their institutions. The proposals will be need to, among others, respond to the Terms of Reference (on lines prepared by the NPIU), indicate training fee (common for each institution), institutions-wise other expenditure (travel, boarding and lodging, training materials etc.) and terms of payment.
- After due clearance from the SSC/NPIU/World Bank as the case may be the, SPFUs will award the contract to the training provider(s) under intimation to the NPIU, monitor progress and effectiveness of training, review faculty feed back and end-of-course assessment reports for each institution and cause modifications to be made by the training provider(s) as may become necessary.

Payment to Training Providers: SPFU will promptly pay the training provider all permissible expenditure on receipt of the following documents : (1,2 & 3 from the institution and 4 from the training providers).

1. Attendance record from faculty members,
2. List of participants with full names, titles and personal e-mails,
3. Summary of faculty feed back compiled by the institutions, and.
4. Training assessment by the training provider with recommendations for improvements.

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**MECHANICS OF PROPOSAL EVALUATION**


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**A : MECHANICS OF EVALUATION FOR STATE PROPOSAL**

<b>S. No.</b>	<b>Evaluation Parameters</b>	<b>Marks</b>
1	Evidence that the Directorate of Technical Education (DTE) located within the State structure is in a manner that facilitates on-going coordination with State policy related to other dimensions of higher education	<b>/10</b>
2	Evidence that the State's participation in the project is linked to its policy objectives for technical education	<b>/10</b>
3	Understanding that potential contributions of Project reflect an understanding of the objectives and suggested activities of Sub-components 1.1, 1.2, 1.2.1, and 1.3	<b>/10</b>
4	Understanding of the underlying rationale for granting institutions increased autonomy as required in eligibility criterion 1	<b>/10</b>
5	Commitment to meeting the requirement of criterion 1 before signing MOU with MHRD to seek and obtain autonomous status and agree to continuous funding	<b>/10</b>
6	Demonstration of intent to establish a governance model that will assure accountability towards government, civil society, and industry	<b>/10</b>
7	Demonstration that the structure of the Board of Governors reflect the requirements set forth in Section-V	<b>/10</b>
8	Evidence that the State has identified, understood and discussed with key stakeholders the main steps and challenges for implementation of the required reforms	<b>/10</b>
9	Evidence of full understanding and commitment of the rationale for granting institutions increased financing and administrative autonomy	<b>/10</b>
10	Evidence that the State has a plan to sustain the gains of the project after it has been closed	<b>/10</b>
	<b>Total Marks</b>	<b>100</b>

**B: MECHANICS OF EVALUATION FOR ELIGIBILITY PROPOSAL UNDER SUB-COMPONENT 1.1**

<b>S No</b>	<b>Evaluation Parameters</b>	<b>Marks</b>
<b>A</b>	<b>Quality of SWOT Analysis</b>	<b>/25</b>
1	Overall quality of the SWOT analysis (strength, weaknesses, opportunities and threats)	
2	Strategic quality of analysis of weaknesses	
3	Clarity in the identification of strengths, opportunities and threats	
4	Quality of background data	
5	Coherence of SWOT links to the specific reality and human and material resources of the applying institution	
<b>B</b>	<b>Clarity and importance of the objectives and results for institutional strengthening and employability and learning outcomes of graduates; and the link with the SWOT analysis</b>	<b>/25</b>
6	Overall clarity and quality of general and specific objectives, and expected results	
7	Coherence of objectives and results with skills and employability of graduates	
8	Coherence of objectives and results with comprehensive strengthening of the Institution	
9	Clarity in the identification of options to improve employability	
10	Coherence of objectives and results with the SWOT analysis	
<b>C</b>	<b>Quality and feasibility of the action plan to implement the project; and the link with the objectives and expected results.</b>	<b>/25</b>
11	Quality and feasibility of the action plan to implement the project	
12	Clarity of the main actions and interventions	
13	Coherence of actions and interventions with planned outcomes and results	
14	Viability of outlined actions and feasibility within the 3 year period of the project	
15	Efficiency and economy of described actions to achieve the expected outcomes and results	
<b>D</b>	<b>Implementation of reforms</b>	<b>/25</b>
16	Quality of the action plan to obtain institutional autonomy	
17	Quality of the action plan to achieve accreditation targets	
18	Quality of the action plan to utilize the block grant effectively and efficiently	
19	Quality of the plan to increase the institution's non-tuition revenue	
20	Overall quality of the action plan to implement reforms	
	<b>Total Marks</b>	<b>100</b>

**C. MECHANICS OF EVALUATION FOR INSTITUTIONAL DEVELOPMENT PROPOSAL (IDP)  
UNDER SUB-COMPONENT 1.1**

<b>S. No</b>	<b>Evaluation Parameters</b>	<b>Marks</b>
<b>I</b>	<b>INSTITUTIONAL PREPAREDNESS AND IMPLEMENTATION FEASIBILITY</b>	<b>/40</b>
<b>A</b>	<b>Overall proposal implementation feasibility</b>	<b>/15</b>
1	Clarity of present institutional development description	
2	Clarity and realism of proposal objectives and expected outcomes	
3	Quality of the implementation arrangements plan	
<b>B</b>	<b>Quality of SWOT analysis</b>	<b>/10</b>
4	Quality of the diagnostics	
5	Coherence of links with the proposed action plan to mitigate institutional weakness and enhance institutional strengths	
<b>C</b>	<b>Reasonability of proposed proposal budget</b>	<b>/5</b>
<b>D</b>	<b>Engagement of departments/faculty in the proposal preparation and implementation</b>	<b>/5</b>
<b>E</b>	<b>Coherence of proposal with State's/regional development plan</b>	<b>/5</b>
<b>II</b>	<b>CLARITY AND QUALITY OF THE ACTION PLAN TO ACHIEVE;</b>	<b>/60</b>
<b>F</b>	<b>Autonomy, accreditation and implementation of reforms</b>	<b>/15</b>
9	Quality of action plan to obtain institutional autonomy	
10	Quality of action plan to achieve accreditation targets	
11	Quality of action plan to implement academic reforms	
<b>G</b>	<b>Improvement in employability of graduates</b>	<b>/10</b>
12	Identification of options to improve employability such as demanded competencies and areas of demand, teaching those demanded competencies as well as methods to better place graduates.	
13	Quality of action plan to achieve higher employability rates	
<b>H</b>	<b>Increased learning outcomes of students</b>	<b>/10</b>
14	Identification of targeted learning outcomes and their link with employability	
15	Quality of action plan to achieve the learning outcomes in terms of update of curricula, faculty development and investment in learning infrastructure, including use of new technologies and techniques in teaching-learning	
<b>I</b>	<b>Improvement in learning of weak students</b>	<b>/10</b>
16	Quality of the identification of the groups of weaker students and the reasons for weaknesses	
17	Quality of action plan to remedy the weakness through implementation of remedial programmes and actions for successful learning and placement	
<b>J</b>	<b>Improvement in faculty qualifications including pedagogical training</b>	<b>/10</b>
18	Quality of action plan to develop academic staff of high standards	
19	Quality of action plan to improve pedagogical skills of academic staff for better student learning	
<b>K</b>	<b>Interaction with industry</b>	<b>/5</b>
	<b>TOTAL MARKS</b>	<b>100</b>

**D : MECHANICS OF EVALUATION FOR INSTITUTIONAL DEVELOPMENT PROPOSAL (IDP)  
UNDER SUB-COMPONENT 1.2**

<b>S. No</b>	<b>Evaluation Parameters</b>	<b>Marks</b>
<b>I</b>	<b>INSTITUTIONAL PREPAREDNESS AND IMPLEMENTATION FEASIBILITY</b>	<b>/40</b>
<b>A</b>	<b>Overall implementation feasibility</b>	<b>/15</b>
1	Clarity of present institutional development description	
2	Clarity and realism of proposal objectives and expected outcomes	
3	Quality of the implementation arrangements plan	
<b>B</b>	<b>Quality of SWOT analysis</b>	<b>/10</b>
4	Quality of the diagnostics	
5	Coherence of links with the proposed action plan to mitigate institutional weakness and enhance institutional strengths	
<b>C</b>	<b>Reasonability of proposed proposal budget</b>	<b>/ 5</b>
<b>D</b>	<b>Engagement of departments/faculty in the proposal preparation and implementation</b>	<b>/5</b>
<b>E</b>	<b>Coherence of proposal with State's/regional development plan</b>	<b>/5</b>
<b>II</b>	<b>CLARITY AND QUALITY OF THE ACTION PLAN TO ACHIEVE;</b>	<b>/60</b>
<b>F</b>	<b>Scaling-up research and innovation</b>	<b>/15</b>
9	Quality of action plan for quantitatively increasing and qualitatively improving research	
10	Quality of action plan to apply the R&D, transfer technology and/or commercialise R&D (the innovation agenda)	
11	Coherence of the research action plan with the overall proposal	
<b>G</b>	<b>Scaling-up Ph.D. enrolment</b>	<b>/10</b>
12	Quality of action plan to scale up existing Ph.D. programmes or start new programmes	
13	Quality of action plan to strengthen quality of PhD programmes	
<b>H</b>	<b>Scaling-up enrolment into Master programmes</b>	<b>/10</b>
14	Quality of action plan to scale up existing Master programmes or start new programmes	
15	Quality of action plan to strengthen quality of Master programmes	
<b>I</b>	<b>Research collaborative activities with institution at National and international level</b>	<b>/10</b>
16	Identification of options to improve and increase collaboration at national and international level	
17	Potential impact and depth of proposed collaboration for PG education and research at the national and international level	
<b>J</b>	<b>Improving interaction with industry</b>	<b>/10</b>
18	Identification of options to improve collaboration with industry	
19	Potential impact and depth of proposed industry collaboration	
<b>K</b>	<b>Improving faculty qualifications</b>	<b>/5</b>
	<b>TOTAL MARKS</b>	<b>100</b>