
**TECHNICAL EDUCATION QUALITY IMPROVEMENT PROGRAMME
PHASE – II [TEQIP-II]**

PROJECT IMPLEMENTATION PLAN

December 2009 (updated June 2015)

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

ABBREVIATIONS AND ACRONYMS

AICTE	All India Council for Technical Education
BoG	Board of Governors
CAAA	Controller of Aid, Accounts & Audit
CABE	Central Advisory Board of Education
CAGR	Compound Annual Growth Rate
CD	Compact Disk
CDC	Curriculum Development Cell
CE	Continuing Education
CFI	Centrally Funded Institution
CII	Confederation of Indian Industry
CoE	Centre of Excellence
CPA	Central Project Advisor
CSS	Centrally Sponsored Scheme
DEA	Department of Economic Affairs of GoI
DMF	Disclosure Management Framework
DTE	Director of Technical Education / Directorate of Technical Education
e-FMR	Electronic Financial Monitoring Report
EAP	Equity Action Plan
EMF	Environment Management Framework
FICCI	Federation of Indian Chambers of Commerce and Industry
FMM	Financial Management Manual
FMR	Financial Monitoring Report
GATE	Graduate Aptitude Test in Engineering
GoI	Government of India
HoD	Head of the Department
IBRD	International Bank for Reconstruction and Development
ICB	International Competitive Bidding
ICT	Information and Communication Technology
IDA	International Development Association
IDP	Institutional Development Proposal
I-I-I	Industry Institute Interaction
IIIC	Industry Institute Interaction Cell
IIT	Indian Institute of Technology
INDEST	Indian National Digital Library in Engineering Sciences & Technology
IRG	Internal Revenue Generation
IT	Information Technology
KPI	Key Performance Indicator
LCD	Liquid Crystal Display
LRs	Learning Resources
MHRD	Ministry of Human Resource Development
MIS	Management Information System
MoA	Memorandum of Association
MoU	Memorandum of Understanding
NAAC	National Assessment and Accreditation Council of the UGC
NASSCOM	National Association of Software & Service Companies

NBA	National Board for Accreditation of the AICTE
NCB	National Competitive Bidding
NDMA	National Disaster Management Authority
NEC	National Evaluation Committee
NIT	National Institute of Technology
NPD	National Project Director / National Project Directorate in DHE of MHRD
NPE	National Policy on Education of GoI
NPIU	National Project Implementation Unit
NPSAG	National Private Sector Advisory Group
NSC	National Steering Committee
OBC	Other Backward Class
PIP	Project Implementation Plan
PMSS	Procurement Management Support System
QA	Quality Assurance
QCBS	Quality & Cost Based Selection
R&D	Research and Development
R&D&I	Research & Development and Innovation
RFP	Request for Proposal
SC	Scheduled Castes
ST	Scheduled Tribes
SPA	State Project Advisor in the SPFU
SPFU	State Project Facilitation Unit
SPSAG	State Private Sector Advisory Group
SSC	State Steering Committee
SWOT	Strengths, Weaknesses, Opportunities and Threats
TEQIP	Technical Education Quality Improvement Programme
TEQIP-I	Technical Education Quality Improvement Programme, Phase-I (2003-2009)
TEQIP-II	Technical Education Quality Improvement Programme, Phase-II (2010-2014)
ToR	Terms of Reference
TNA	Training Needs Analysis
UG	Undergraduate
UGC	University Grants Commission
UT	Union Territory

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Section-1 BACKGROUND

1.1 Present System of Engineering Education in India:

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 establishment of self-financed Engineering Institutions where State Government does not provide financial support. As a result, the Indian system of Engineering Education has become vast and so far a total number of 3495 Engineering Degree institutions¹ have been established with enrolment capacity of 17,61,976 as in 2012-13.

The exponential growth in Engineering Education seems to have not resulted in any significant growth in the number of quality Graduates due to restricted availability of qualified and meritorious faculty. There is currently a wide gap between qualities of Engineering Education as imparted in various institutions. 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. The few IITs can neither change the fate of the whole country nor improve the entire Engineering Education System.

Concerted efforts are required to bridge the gap in the quality of education between IITs and other institutions. The IITs can act as a catalyst in the growth of quality Engineering Education in the country, and play a major role in training faculty from other institutions of the country in both teaching and research.

Some of the concerns in Engineering Education System are:

- a) Faculty shortage: The massive expansion of institutions has resulted in an acute faculty shortage in the institutions. In some of the important disciplines such as Information Technology and related areas, availability of faculty is dismal as 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. Also, shortage of training opportunities and attention to overall growth of faculty is adversely affecting impartation of quality knowledge and skills to students. The faculty also lack communication skills and pedagogical skills.
- b) Industry-Academia collaboration: At present, this collaboration is at a nascent stage. Industry-Academia collaboration involves two key aspects—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 sharing technical knowledge; and (iii) provision of 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 absence of timely curriculum revisions for increasing focus on practical training and quality instructions, research and development.
- d) Stagnating research: Increasing research that caters to the emerging Industry and societal demands 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 in teaching and research. Active research programmes in Engineering Education institutions would also make meaningful contribution for sustainable technological development in India.
- e) Attracting students to become faculty: The attraction of students to a teaching career depends upon salary package, perks/facilities and professional career development opportunities. 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 housing accommodation, medical attention, good quality schooling for wards on residential campus, etc. The non-availability of adequate research funds and quality research students is also a cause of concern in the professional growth of a faculty.

¹ Source: AICTE – No. of Engineering Colleges in 2012-2013.

- f) Imbalance in outputs at Bachelors, Masters and Doctoral levels in engineering disciplines: The number of Bachelor's degree graduates in engineering (BE/BTech) 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) as stated in study report submitted by Energy Systems Engineering, IIT Bombay in the year 2007. However, as compared to Bachelor's 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. The data presented clearly reflects that the output of Engineering Graduates at Bachelor level is disproportionately high in comparison to Masters level and further higher 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. The modernization will be undertaken to enhance functional efficiency.
- (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 such as teaching, research, development of learning resource material, extension and managing the institution. Initial and in-service training will be made mandatory for faculty 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 had 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 25 State Governments and Union Territories of Andaman & Nicobar Islands and Puducherry 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.

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 financial assistance from the World Bank launched a Technical Education Quality Improvement Programme (TEQIP) as a long-term Programme, to be implemented in three phases for systemic transformation of the Technical Education System. The first phase of TEQIP commenced in March 2003 and ended in March 2009, covering 127 institutions in 13 States. This project covered less than 10% of the institutions that existed then. It 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 and Twelfth Five Year Plan (2012 to 2017). The main target for the Twelfth Five-year Plan for Higher Education (Technical and General) is to increase gross enrolment ratio in Higher Education from 17.9% to 25.2%.

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

Section-2 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 systemic transformation of the Technical Education System.

The goal of the Programme is 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 National and International levels.

It has a clear focus on the objective of improving the overall quality of Engineering Education.

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-I² 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-II³.

2.2 Project Objectives:

The Project will focus on the following objectives:

- Strengthening institutions to improve learning outcomes and employability of graduates
- Scaling-up Postgraduate Education and demand-driven Research & Development and Innovation,
- Establishing Centres of Excellence for focused applicable research,
- Training of faculty for effective teaching, and
- Enhancing Institutional and System Management effectiveness.

2.3 Project Scope:

Project will be open for competition and participation by: (a) the All India Council for Technical Education (AICTE) approved Engineering institutions from all States and Union Territories across the country and (b) Engineering faculty, Engineering Teaching Department, Constituent Institutions of Universities and Deemed to be Universities (c) Centrally Funded Institutions (CFIs). An around 200 Engineering institutions will be competitively selected in one or two cycles. Eligible private unaided institutions willing to contribute to the vision of India to produce high quality technical manpower would also be selected in the Project. However, total number of private unaided institutions to be selected for participation in the Project will be limited to about 20% of total project institutions.

2.4 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. The Project will be implemented as a **Centrally Sponsored Scheme (CSS)** with matching contribution from State Governments and Union Territories.

India comprises apart from 07 Union Territories, 18 States in the general and 11 States in the Special category⁴. The Special category states are Arunachal Pradesh, Assam, Himachal Pradesh, Jammu & Kashmir, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim, Tripura and Uttarakhand. These states have some distinct characteristics like international boundaries, hilly terrains and have distinctly different socio-economic development parameters. These States also have geographical disadvantages in their effort for infrastructural development and hence these States deserve special assistance.

Project cost in the Government funded and Government aided institutions for all sub-components will be shared between the MHRD and State and UT Governments in the ratio of 75:25 in all States except the Special Category States wherein the ratio will be 90:10. For Centrally Funded Institutions, 100% of institutional project costs will be borne by the MHRD.

² First Phase of the Technical Education Quality Improvement Programme that closed on March 31, 2009 is referred to as TEQIP-I throughout this Project Implementation Plan (PIP) document. The list of 127 institutions that participated in TEQIP-I is given at Annex-VIII (P.No. 229).

³ Second Phase of the Technical Education Quality Improvement Programme is referred to as the Project or TEQIP-II throughout the PIP.

⁴ Source : 12th & 13th Finance Commission Report.

Funding for private unaided institutions in all States and UTs will be in the ratio of 60:20:20 i.e. 60% funding as Grant from MHRD, 20% funding as Grant from the State and 20% funding from institutions.

The funding pattern and cost-sharing details with respect to Centre, State and Private unaided institutions are given in Table-13.

A set of Eligibility Criteria for States and UTs is enforced to achieve a high and sustained impact of the Project. The criteria 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 increase empowerment of institutions for self-governance and incentivizing improvements in Engineering Education.

The project institutions will be required to implement academic and non-academic reforms within their self-conceived development programmes that focus on quality and relevance, excellence, resource mobilization, greater institutional autonomy with accountability, research and equity.

Professional development programmes for engineering-education policy planners, administrators and implementers at the Central, State and Institutional levels will be organized. The Project will also support development of an effective governance model.

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 Institutional 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 project institution and achievements made on a set of Key Performance Indicators (KPIs). 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.

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

2.5 Project Design:

The Project - second phase of the Technical Education Quality Improvement Programme (TEQIP) seeks to strengthen selected institutions to produce more employable and higher quality engineers and prepare more post-graduate students to reduce faculty shortage.

“Strengthening of Institutions” is the long term objective of the Project emphasizing on production of more employable and higher quality graduate engineers. Improving quality of education (learning outcomes) and employability of graduates are medium-term outcomes.

The Project is composed of the following Components and Sub-components:

Component - 1 : Improving Quality of Education in Selected Institutions

This Component aims to strengthen around 200 competitively selected Engineering Education Institutions to improve learning outcomes and employability of graduates and scale-up Postgraduate education, research & development and innovation and establishing centres of excellence. The faculty of these institutions will also be offered pedagogical training for effective teaching.

The objectives of this Component will be achieved through the following Sub-components:

- *Sub-component 1.1* : Strengthening institutions to improve learning outcomes and employability of graduates
- *Sub-component 1.2* : Scaling-up Postgraduate Education and Demand-Driven Research & Development and Innovation
- *Sub-component 1.2.1* : Establishing Centres of Excellence
- *Sub-component 1.3* : Faculty Development for Effective Teaching (Pedagogical Training)

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 aims to provide timely, sufficient, precise, and reliable information to improve and assess the performance of the selected institutions for effective Project Management through the following sub-components:

- *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 the detailed descriptions are given in Section-3.

Table-1
Project Components and Sub-components

Component – 1 : Improving Quality of Education in Selected Institutions	
1.1 Strengthening Institutions to Improve Learning Outcomes and Employability of Graduates	
Objectives	Suggested activities
<p>To strengthen selected engineering institutions to improve learning outcomes and employability of graduates.</p> <p>(An estimated 125[#] new* Engineering Education institutions meeting the Eligibility Criteria will be competitively selected under this Sub-component.)</p> <p>Private unaided institutions (around 25[#]) could also be part of this Sub-component but will be funded on cost sharing basis.</p>	<ul style="list-style-type: none"> • Improvement in teaching, training and learning facilities for Government funded and Government aided institutions : <ul style="list-style-type: none"> ○ Starting new PG programmes in Engineering discipline ○ Modernization and strengthening of laboratories and establishment of new laboratories for existing UG and PG⁵ programmes and for new PG programmes ○ Modernization of classrooms ○ Updation of learning resources ○ Procurement of furniture ○ Establishment/upgradation of Central and Departmental Computer Centres ○ Modernization/improvements of supporting departments ○ Modernization and strengthening of libraries and increasing access to knowledge resources ○ Minor civil works • Improvement in teaching, training and learning facilities for Private unaided Institutions : <ul style="list-style-type: none"> ○ Acquiring text books, e-journals and software⁶ • Providing Teaching and Research Assistantships⁷ to increase enrolment in existing and new PG programmes in engineering & applied sciences disciplines • Enhancement of R&D and institutional 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 • Support to student needs⁸

⁵ The term PG covers both Masters and Doctoral programmes.

⁶ Updated as per Minutes of Review Meeting held on 19th June 2013.

⁷ Teaching Assistantships are to be awarded to full-time Masters degree students and Research Assistantships are to be awarded to full-time Doctoral students who are not able to secure AICTE/UGC sponsorship or any other scholarship or fellowship.

[#] Updated as per 5th NSC Meeting decision.

* New : First time entry to the TEQIP.

⁸ Updated as per 2nd JRM Aide Memorie.

1.2 Scaling-up Postgraduate Education and Demand-Driven Research & Development and Innovation	
Objectives	Suggested activities
<p>To significantly increase enrolment in Postgraduate education and enhance engineering research and development and innovation.</p> <p>(An estimated 75[#] institutions will be selected under this Sub-component. Private unaided institutions (around 15) could also be part of this Sub-component) but will be funded on cost sharing basis.</p> <p>Major focus will be on the following:</p> <ul style="list-style-type: none"> • Improving quality and relevance of PG programmes • Attracting more and better qualified students for PG programmes • Improving faculty qualifications • Improving management of the institutions through effective governance 	<ul style="list-style-type: none"> • Improvement in teaching, training and learning facilities for Government funded and Government aided institutions : <ul style="list-style-type: none"> ○ Starting new PG programmes in emerging engineering disciplines ○ Establishment of new laboratories for new and existing PG programmes in engineering disciplines ○ Updation of learning resources ○ Procurement of furniture ○ Modernization and strengthening of libraries and increasing access to knowledge resources ○ Minor civil works • Improvement in teaching, training and learning facilities for Private unaided institutions : <ul style="list-style-type: none"> ○ Acquiring text books, e-journals and software⁹ • Providing Teaching and Research Assistantships for significantly increasing enrolment in existing and new Masters and Doctoral programmes in engineering & applied sciences disciplines • Enhancement of R&D and Institutional consultancy activities <ul style="list-style-type: none"> ○ Development of research interest among under graduate and Masters students ○ Resource sharing with Industry through collaborative arrangements • 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 • Support to student needs¹⁰

[#] Updated as per 5th NSC Meeting decision.

⁹ Updated as per Minutes of Review Meeting held on 19th June 2013.

¹⁰ Updated as per 2nd JRM Aide Memorie.

1.2.1 Establishing Centres of Excellence	
Objectives	Suggested activities
<p>To support establishment of Centres of Excellence for collaborative and multi-disciplinary research within specific thematic areas of regional or national importance.</p> <p>The institutions having potential for carrying out applicable research will be eligible for setting up Centres of Excellence. About 30 Centres of Excellence will be established.</p> <p>Major focus will be on the following :</p> <ul style="list-style-type: none"> • Create knowledge in thematic, multi-disciplinary areas in collaboration with industry and other knowledge users • Produce advanced human capital (MTechs and PhDs) in thematic areas in collaboration with Industry and other knowledge users • Increase societal use of engineering R&D through technology transfer and commercialization • Increase research output 	<ul style="list-style-type: none"> • Improvement in Research and Development facilities for Government funded and Government aided institutions : <ul style="list-style-type: none"> ○ Establishment of new laboratories for applicable thematic research ○ Establishment of a knowledge resource centre (library) in the thematic area ○ Procurement of furniture ○ Minor civil works • Improvement in Research and Development facilities for Private unaided Institutions : <ul style="list-style-type: none"> ○ Acquiring text books, e-journals and software¹¹ • Providing Teaching and Research Assistantships for enrolment in Masters and Doctoral programmes in topics linked to economic or societal needs in the thematic areas • Collaboration with Industry for applicable research and product development • Collaboration with industry in education and research • National/International collaboration for Research and Development activities with academic institutions and R&D organizations. • Enhancing research competence of faculty and knowledge sharing in thematic areas, both within India and abroad <p><i>(Note : Industry collaboration through an MoU is a necessary pre-condition for award of CoE to an institution)</i></p>

1.3 Faculty Development for Effective Teaching (Pedagogical Training)	
Objective	Suggested activities
<p>To improve competence of faculty from project institutions through Pedagogical Training for effective teaching to improve the learning outcomes of Engineering students.</p>	<ul style="list-style-type: none"> • To provide Pedagogical Training to faculty from project institutions.

¹¹ Updated as per Minutes of Review Meeting held on 19th June 2013.

Component – 2 : Improving System Management	
2.1 Capacity Building to Strengthen Management	
Objectives	Suggested activities
<ul style="list-style-type: none"> • To build capacity of Technical Education Policy Planners, Administrators and Implementers at Central, State level and Institutional for effective implementation of academic and non-academic reforms • To introduce and sustain innovative systemic quality improvement practices 	<ul style="list-style-type: none"> • Conducting Professional Development Programme for Technical Education Policy Planners, Administrators and Implementers at the Central, State level and Institutional levels • Establishment of an Expert Advisor Group (EAG) for effective system governance by the MHRD • Establishing Management Capacity Development Centres at IIMs for training of TEQIP institutions
2.2 Project Management, Monitoring and Evaluation	
Objectives	Suggested activities
<ul style="list-style-type: none"> • To plan, organize and manage resources to bring about successful achievement of Project 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 Development Proposal (IDP) and suggest remedial measures, as required • To mentor the project institutions towards quality improvement and to audit the Institutional performance in achieving their respective targets 	<ul style="list-style-type: none"> • 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) • Ensuring deliverables as outputs from the Project, as planned • Monitoring and evaluation of performance through: <ul style="list-style-type: none"> ➤ Key Performance Indicators (KPIs) ➤ Management Information System (MIS) ➤ Financial Monitoring Report (e-FMR) ➤ Procurement Management Support System (PMSS). ➤ Conduct of Assessment Surveys : <ul style="list-style-type: none"> ○ Student Satisfaction Surveys ○ Faculty Satisfaction Surveys ○ Implementation Surveys ➤ Conduct of Institutional Audits: <ul style="list-style-type: none"> ○ Performance and Data Audits ○ Fiduciary Reviews ➤ Conduct of Resource Utilization Study ➤ Conduct of Bibliometric Study ➤ Conduct of Impact Assessment Study ➤ Reviews : <ul style="list-style-type: none"> ○ Mid-term Review Mission ○ Bi-annual Joint Review Missions • Mentoring

2.6 Risk Analysis and Mitigation Measures:

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 the National and International levels. The Project Design has been deliberated adequately by all stakeholders (State and Central governments, 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 ensure successful implementation of the Project:

**Table-2
Risks and Mitigation Measures**

Risk Factor	Description of Risk	Rating of Risk	Mitigation Measures
Governance and Policies	Due to the selectivity in Eligibility Criteria to achieve the project objectives, the institutions from the States lagging in Technical Education, may not be able to 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 willingness to implement academic and non-academic reforms is an essential pre-condition for participation in the Project to be fulfilled by the Institutions and the States. Only those institutions that are willing to reform will be selected under the Project.
	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 a bottom up approach. Project planning by the institutions and States have been encouraged to ensure project ownership.
Technical Design	Inadequacy in Financial and Administrative Autonomy to Boards of Governors/ Institutional leaders.	Low	The minimum desirable autonomy has been agreed and included in the Eligibility Criteria for States and Institutions.
	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 Development Proposals (IDPs) are required to provide 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 for training of faculty in modern pedagogy and for updating subject knowledge.
Implementation Capacity and Sustainability	Lack of ownership at State level causing delay in implementation of all the agreed reforms and in compliance with all the fiduciary requirements 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 and mentored on regular basis to help them meet the requirements of the Project.

Risk Factor	Description of Risk	Rating of Risk	Mitigation Measures
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.
	Delay in fund distribution and inadequate amount of funds to institutions, especially to the private unaided institutions.	Substantial	The States will make 100% budget provisions for the institutional projects. A common MoU between State and institutions for funding private institutions has been agreed to ensure funding to the private unaided institutions [Annex-III (c) and (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 Central and State governments have made adequate provisions in their budgets. The SPFUs with adequate staff will be in place by commencement of the Project. The NPIU will pro-actively follow-up with the States to expedite audits.
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 processes. The Coordinator will be trained on the agreed procurement procedures. Procurement Manual has been developed for the Project as per the World Bank Guidelines on Procurement to streamline the Procurement activities of all project institutions. 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 of consistency and standards and lead to fiduciary risks.	Substantial	A web based Procurement Management Support System is being developed for monitoring the entire procurement processes 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, along with addresses of original manufacturers in the country with anticipated price ranges.
Social and Environmental Safeguards	Inadequate attention, at both State and Institutional levels, to address the disadvantages faced by SC/ST/OBC students, resulting in reduced internal and external efficiencies.	Low	The Project has been designed to develop and oversee implementation of a set of actions 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-3
PROJECT DESCRIPTION

3.1 COMPONENT-1 : IMPROVING QUALITY OF EDUCATION IN SELECTED INSTITUTIONS

This Component aims to **strengthen** around 200 competitively selected Engineering Education Institutions to (i) improve learning outcomes and employability (ii) scale-up postgraduate education, research & development and innovation (iii) establish Centres of Excellence and (iv) organise faculty development for effective teaching by offering Pedagogical Training.

There are four Sub-components under this Component.

3.1.1 Sub-component 1.1 : Strengthening Institutions to Improve Learning Outcomes and Employability of Graduates

1. Objective:

To strengthen selected engineering institutions to improve learning outcomes and employability of graduates.

2. Scope:

The potential institutions that prepare best Institutional Development Proposals (IDPs) for meeting the above objective could be part of this Sub-component. Around 125 new Engineering education institutions (out of which 25 institutions can be private unaided), meeting the Eligibility Criteria as described in Section-4 (4.3.1) will be competitively selected in one or two cycles from both new¹² and old¹³ eligible States to participate in this Sub-component.

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

- New¹⁴ institutions from the old States
- New Centrally Funded Institutions
- Institutions from new States
- Engineering Faculty/Engineering Teaching Departments/Constituent Institutions of Universities
- Engineering Faculty/Engineering Teaching Departments/Constituent Institutions of Deemed to be Universities, and
- Private unaided institutions on cost sharing basis¹⁵

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

- State institutions and CFIs, which have participated in TEQIP-I,
- Polytechnic institutions,
- Architecture, Management and Pharmacy institutions or departments, and
- Master of Computer Application Departments/institutions.

3. Strategy:

The objective of this Sub-component will be achieved through implementation of comprehensive and coherent Institutional Development Proposals (IDPs) containing a set of reforms, improvements in faculty competence and quality of teaching, research and consultancy, and improvement in the associated infrastructure.

Institutions participating in this Sub-component can not apply for Sub-component 1.2.

4. Deliverables:

a) The institutions under this Sub-component will be responsible for the following deliverables:

- A strengthened institution in terms of academic and management capacities as evidenced by :
 - Obtaining Autonomous Institution Status within 2 years of joining the project.
 - At least 55% of its eligible UG and PG programmes[#] accredited plus applied for.
 - Having at least four Board of Governors (BoG)¹⁶ meetings per year as documented by publication of the proceedings of the BoG meetings on the institution's website.
 - Completion of performance and data audit.
 - Completion of data inputs in the MIS.

¹² New : First time entry to the TEQIP

¹³ Old : States / Institutions that had participated in TEQIP Phase I (Refer Annex– VIII)

¹⁴ Institutions : Government funded, Government aided, Private unaided

¹⁵ Funding for private unaided institutions under this Sub-component will be in the ratio of 60:20:20 for permissible activities i.e. 60% by the MHRD as grant, 20% by State as grant and 20% by institutions for select activities (see Table-13 & 18-A) .

[#] Updated as per 2nd JRM held in December 2013.

¹⁶ The term Board of Governors is synonymous with such term as Board of Management or Managing Committee of Faculty / Departments / constituent institutions / colleges of Universities and Deemed to be Universities.

- b) In addition, the project institutions are expected to improve performance with respect to baseline on the following aspects:
- Increased employability of students as measured by:
 - Improvements in the placement rate and the average salary of placement package
 - Improved learning among students as indicated by:
 - The share of the first year students that complete the full first year and transit successfully to second year
 - 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 Masters 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
 - Number of MoUs signed with Industry

5. Evaluation and Selection:

Selection will be based on evaluation of Eligibility and Institutional Development Proposals (IDPs) prepared using the prescribed formats. The selection process is detailed in Section-4. Information given in the formats should be **verifiable**, be to the point and be supported by documents.

6. Funding pattern:

The financial allocation to each Centrally Funded, Government funded and Government aided institution is expected to be in the range of Rs.10.00 crore and Rs.4.00 for private unaided institutions on cost sharing basis for select activities (see Table-1). For planning of fund requirements under various groups of activities, refer Section-6 [Table-15 and Table-15 (a)]. Further allocations may be made based on institutional performance against certain benchmarks, on a basis to be determined by MHRD from time to time¹⁷. Allocation may also be reduced for non fulfilment of benchmarks.

7. The following activities are suggested under this Sub-component:

(A) Pre-selection:

The institutions desirous to participate in this Sub-component may undertake the activities as suggested below:

(i) SWOT Analysis:

The States/Union Territories are required to carry out analysis using SWOT framework in applicant institutions to identify Strengths, Weaknesses and to examine the Opportunities and Threats faced, thereby focusing project activities into areas where they are strong, and where the greatest opportunities lie (for Guidelines please refer Annex-V).

(ii) Preparedness for participation:

The selection of institutions in this Sub-component will be based on:

1. Fulfilment of minimum eligibility benchmarks
2. Quality of Institutional Development Proposal (IDP)

Institutions should ensure themselves that they fulfil the minimum eligibility benchmarks before applying as described in Section-4 (4.3.1).

Eligible institutions are required to prepare an Institutional Development Proposal (IDP) in the prescribed format for strengthening the institution and increase employability of graduates. The SWOT analysis would help institutions in designing their project proposal. The institutions can propose a combination of the following activities in their proposal:

- Improvement in teaching, training and learning facilities,

¹⁷ Updated as per 9th NSC meeting decision.

- Providing Teaching and Research Assistantships to increase enrolment in existing and new PG programmes in Engineering & applied sciences disciplines,
- Enhancement of Research & Development and institutional 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, and
- Providing academic support for weak students.

(B) Post-selection:

The institutions selected in this Sub-component should determine which activities they need to undertake in order to meet the objectives of this Sub-component; such activities should be set out in the Institutional Development Proposal, as amended from time to time by the institution's Board of Governors. Examples of activities institutions may wish to consider include:

(i) (a) Improvement in Teaching, Training and Learning facilities for Government funded and Government aided institutions:

Procurement of Goods [equipment; furniture; books & LRs, softwares; and minor items] and minor civil works that may be required under the Project for improvement in teaching, training and learning facilities. A maximum of 55% of total project allocation (estimated Rs. 5.5 crore) can be made for procurement by each Government funded and Government aided institution for this activity. [Refer Table-15 S.No. (1)].

The various sub-activities are as follows:

- (a) *Starting new PG programmes in Engineering discipline:* Starting of new PG programmes (Masters / Doctoral) can be proposed in the IDP. The Project will support only those new PG programmes that are AICTE approved and for which the availability of required faculty is assured.
- (b) *Modernization and strengthening of laboratories and establishment of new laboratories for existing UG and PG programmes and for new PG programmes:* For meeting additional/new requirements from UG and PG curricula, starting of new PG programmes, removal of obsolescence and promotion of research activities for students and faculty are envisaged in the project through:
 - (i) modernization and strengthening of laboratories for existing UG and PG programmes
 - (ii) establishment of new laboratories for existing UG and PG programmes
 - (iii) establishment of new laboratories for new PG programmes
- (c) *Modernization of Classrooms:* Classrooms could be modernized to have Smart Boards and Computers linked to LCD Projectors with screen, which would hold greater attention of the students than mere lecturing. Guest lectures or class lectures organized through V-SAT, Video Conferencing and Audio-Conferencing can also be considered depending upon need and feasibility. The classrooms need to be equipped accordingly.
- (d) *Updation of Learning Resources:* Continuous updating of Learning Resources (books, e-books, e-journals, CDs and professional software) 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.
- (e) *Procurement of Furniture:* Furniture may be required for modernization of existing laboratories, establishment of new laboratories, libraries, Computer Centres and classrooms. Provision would need to be made for such procurement in the Institutional Development Proposal.
- (f) *Establishment/Upgradation of Central and Departmental Computer Centres:* Institutions may need to focus on modernize/upgrade Computer Centres to meet curricular and research requirements. It is desirable that Computer Centres be kept open for extended periods beyond working hours and on non-working days. Proper connectivity with Campus-wide Networking is most desirable. Purchase of the required Computers at one go may be avoided; it may be phased to ensure that the latest systems are procured. The IDP should include the number of computer systems required with purpose, cost estimates and time frame.

Institutions would need to enter into Annual Maintenance Contracts after the expiry of warranty period for the computers and associated hardware procured under the Project. Wherever possible, replacement of computers/components by the suppliers/manufacturers to ensure upgradation of the computers procured may be considered.

- (g) *Modernization/Improvements of Supporting Departments:* Upgradation of teaching and training facilities in the supporting Departments may be considered and included in the IDP so that their contribution is enhanced. The faculty belonging to these supporting Departments may also be extended benefits under Faculty Development.

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 levels.

- (h) *Modernization and strengthening of libraries and 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 on 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 and Departments through Campus-wide Networking. Subscription to the latest e-Journals could be made. The IDP 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 the National Mission on Education.**

- (i) *Minor Civil Works:* The minor civil works to be undertaken by the institutions are to be prioritized as suggested below : (However, civil works are not permitted in private unaided institutions)
- Repair works: The works under this category could be repair of old structures and/or non-functional components of the existing building.
 - Refurbishment works: The works under this category could be related to changing the existing functions of a room 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.
 - Extension to Existing Buildings: Institutions can construct an additional area in continuation to an existing building within the campus. However, institutions will need to provide justification on the extension works proposed.

The expenditure on minor civil works should not exceed 5% of the Institutional project allocation.

Note : Govt. funded and Govt. aided Institutions should follow scrupulously the agreed rules and procedures as set out in the Financial Management and Procurement Manual.

(i) (b) Improvement in Teaching, Training and Learning Facilities for Private unaided Institutions:

Acquiring text books, e-journals and software¹⁸: These institutions may acquire the text books, e-journals and software with the approval of Institution's BoG and under information to the respective SPFU.

For participation in Quality Enhancement in Engineering Education (QEEE) programme, the institution may purchase following hardware components from the project fund (not exceeding Rs.7-8 Lakhs) by following the World Bank norms.

- (i) Mirror Server
- (ii) DTH receiver through the Set Top Box
- (iii) Class room with projector, speaker, laptop and other facilities
- (iv) Wi-fi access to students
- (v) Access by students on some tablets/laptops.

¹⁸ Updated as per Minutes of Review Meeting held on 19th June 2013.

Further, these institutions should ensure that the allocated funds be spent judiciously covering all the envisaged activities under the project for the private unaided institutions, so that the objectives of the project are achieved. Moreover, it should be ensured that these institutions should follow scrupulously the agreed rules and procedures as set out in the Financial Management and Procurement Manual.

(ii) Providing Teaching and Research Assistantships to increase enrolment in existing and new PG programmes in Engineering & applied sciences disciplines:

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 Graduates to join Masters programmes and also pursue Research programmes for being employed as faculty. Institutions receiving funds under the Project are encouraged to seek enhancement of Masters degree seats from AICTE so as to increase the enrolment in Masters programmes. Employees sponsored from Industry will be allowed to be enrolled in all Masters and Doctoral programmes. Institutions may also seek permission 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.

GATE qualified students enrolled in Masters courses will receive scholarships as per AICTE norms from the Government sources. The meritorious students admitted by the institutions for Masters Courses that do not receive GATE/other scholarships, may receive Teaching Assistantships from TEQIP funds.

The institutions could also provide Research Assistantships through TEQIP funds to the enrolled Doctoral students that do not get any scholarships through NDF/other schemes.

The Teaching and Research Assistantships are to be provided by institutions as per the prevalent UGC/AICTE norms. The students receiving Teaching or Research Assistantships will be required to devote 8-10 hours per week for teaching or research, as the case may be.

(iii) Enhancement of Research & Development and Institutional Consultancy Activities:

The selected institutions are to promote increased participation of faculty in research, R&D projects and consultancy, for example through merit recognition and fiscal and career incentives. Institutions that already have Doctoral programmes should encourage Masters Students to join Doctoral programmes, as explained in paragraph above.

Institutions need to market their services to the Industry. The Industry should be encouraged to give live problems to the institution for solutions. The faculty who have expertise should be encouraged to take up consultancy assignments, which would directly and indirectly benefit the institution, faculty and students. Internal Revenue Generation (IRG) should receive a boost, and some of the income should be shared with faculty, staff and students as per the norms approved by the Institute's Board of Governors (BoG). Regular interactions through consultancy are likely to promote a healthy and useful relationship between Industries and institutions. 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 IDP.

Institution is also expected to encourage UG and Masters 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.

Institutions are also expected to offer "Seed grant"¹⁹ for research to faculty members and / or students to venture into innovative research and to strengthen research culture in institutions.

(iv) Faculty and Staff Development for Improved Competence based on Training Needs Analysis (TNA):

Enhancing faculty and staff competence would receive focused attention under the Project. Faculty development should be closely linked to the overall goals of the institution as also to fulfil individuals' justifiable professional aspirations. Institutions should plan to spend at least 10% institutional project outlay on faculty and staff development. [Refer Annex-VI].

¹⁹ Updated as per Minutes of Review Meeting held on 19 June 2013.

(a) Faculty Development for improved competence:

(Applicable for faculty of engineering discipline and supporting departments)

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

The following areas may be given importance while formulating an action plan in this regard:

- 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 counselling
- Student performance evaluation
- Continuing Education Programme

Institutions should submit a detailed action plan on Faculty Development in their respective Institutional Development Proposals.

The suggested activities to be conducted are:

(i) Qualification Upgradation :

Institutions are expected to encourage faculty to upgrade their qualification from Bachelors to Masters and from Masters 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 (within India) for enhancement of qualification. Part-time or sandwich programmes may also be made use of where feasible and necessary.

(ii) Enhancing knowledge and research competence:

- Subject upgradation and research competence : 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.
- Continuing Education Programmes (CEPs) : The CEPs at project institutions are to be targeted at the working professionals. The duration of the programmes must be atleast one week (5 working days). The participants should preferably have representations from industries, faculty from other AICTE recognized Engineering institutions and few faculty of the host institution. The Continuing Education Programmes should be conducted preferably in cutting edge technologies.
- Participation in Seminars, Conferences, Workshops, etc.: Faculty is to be encouraged to participate in seminars, conferences and workshops, both National and International. Participation in these would give a good exposure on the developments taking place in different areas. The faculty participating in these should be 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 such collaborations through MoUs.

(iii) Pedagogical Training : The need for Pedagogical Training at institution using the latest teaching methodologies is strongly felt for improving the teaching and training competence of faculty. The target is to cover the maximum faculty from the project institutions.

(b) Staff Development for improved competence:

The staff in an Engineering Education institution fall under two categories:

Technical Staff: The Technical Staff in laboratories and workshops needs 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 service facilities, etc. The training can be organized within the institution or at the supplier/manufacturer premises or at reputed technical training institutions. The technical staff also needs to be motivated and encouraged to participate in training and to use the newly acquired expertise for the benefit of students and the institution.

Administrative Staff: The Administrative Staff also needs training in respective 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.

(c) Procedure to be followed:

Based on the Training Needs Analysis, Faculty Development and Staff Development plans need to be developed for each faculty and staff linking to 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 BoG. The Faculty and Staff Development plans should contain details of the venue, dates, duration and organization where the training will be conducted. Once the plans are approved by **BoG**, deputation of faculty and staff should be done on a regular basis.

Any changes in any Faculty Development Plan due to changes in either institutional priorities or changes in dates/ venue, etc. may be made with the approval of the BoG.

(d) Accountability:

The faculty and staff after undergoing training are required to:

- Prepare a report on the training undertaken and the experience gained. The report should also include the aspects that can be used to improve the teaching-learning process, enhance / improve research, improve equipment utilization and, make administrative and financial functions more efficient.
- Share their experience with students and other faculty/staff of the institution through seminars.
- The report from the faculty and staff should be hosted on the institution's web site.

(v) **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 linkages with the Universities to seek solutions of problems faced by the Industry.

Industry-Institute-Interaction Cell (IIIC) is to be formed in each institution to promote links to benefit students and faculty, and to promote collaborative interdisciplinary research for offering real life solutions. Specific steps proposed should be part of the IDP as an action plan (for Guidance on IIIC, refer Annex-IX).

- (a) The key activity areas in which Industry can participate for the benefit of the institutions 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;
 - Providing exposure to faculty on industrial practices and latest technologies;
 - Participating in such bodies as the Board of Governors, Academic Council, Boards of Studies, faculty recruitment, 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 Postgraduate 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.
 - Conducting short term training programmes in collaboration with institutions.
 - Students' internship to Industry.
- (b) The key areas in which academic institutions can benefit Industries:
- The existing expertise available with project institutions can be utilized by the Industries for technology assessment, up-gradation and absorption.
 - Laboratories in the institutions, especially in select areas of excellence, can be shared with industries on agreed terms.
 - Develop innovations, products and technologies which can be adopted by Industries.
 - Faculty can be deputed to Industry for problem solving and for joint projects.

(vi) Institutional Management Capacity Enhancement:

- (a) 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 improved internal and external efficiencies.
- (b) All the SPFUs, in conjunction with the institutions, are advised 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.
- (c) Accountability:
- All officials and faculty who have undergone this training are required to:
- Prepare a report on the training undertaken and the experience gained. The report should also include the aspects that can be used for efficiency improvement in Managerial and Administrative functions.
 - Share their experience with other faculty and staff within the institution through seminars.
 - The reports from all beneficiaries should be hosted on the institution's web site which should be linked to the NPIU's web site.

(vii) Implementation of Institutional Reforms:

The eligibility criteria for selection of institutions under this Sub-component envisage willingness for implementation of academic and non-academic reforms. For non-academic reforms, institutions are expected to utilize their own funds.

(a) Academic Reforms:

- (i) *Curricular Reforms:* The Central Advisory Board of Education (CABE) 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 labour market requirements. Involvement of employers including core Industry in curricular reforms is an essential requirement.

The Yash Pal Committee Report (2009) on Renovation and Rejuvenation of Higher Education has also stressed that all syllabi should require the faculty and students to apply what they have learnt in their course on 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 till they attain Autonomous Institution status.

Institutions, which are autonomous, can carry out the curricula development and revision themselves by establishing mechanism that would ensure that the curricula meet labour 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; and
 - Multi-level and multi-background entry credit exemptions.
- (ii) *Improved Student Performance Evaluation:* Evaluation of students has to be done on a continuous basis, in order to provide opportunities for improvement. Publication of results in the shortest period and 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.
- (iv) *Performance appraisal of faculty by students:* Evaluation of faculty performance on a periodic basis should be implemented. The results of this should be used for taking remedial actions for improvement of teaching learning process. The main purpose is to help a faculty to improve his/her teaching/training skills. The assessment by students and the counselling which may follow such assessment needs to be aimed at helping faculty recognize weaknesses and remedy them to improve student learning. An exit assessment taken at the end of the course gives an insight into the total effectiveness of the course, learning achievements and shortcomings 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. Faculty should be continuously motivated to improve performance. 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.

- (v) *Faculty incentive for Continuing Education (CE), Consultancy and R&D:* The initiatives taken by faculty should be encouraged through proper incentives and clear guidelines. All faculty are to be 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. 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, etc. Faculty efforts for good achievements in this direction should be suitably recognized by the BoG. Institutional efforts for consulting to Industry and involvement in R&D should also be adequately encouraged. The details are given in Annex-I.
- (vi) *Accreditation of eligible UG and PG programmes:* Accreditation of programmes is one of the quality assurance mechanisms. The bench-marks for eligibility of institutions have been given in Section-4. The accreditation target (obtained and applied for) to be achieved by the end of the project is at least 55% of the eligible UG and PG programmes. Institutions need to take appropriate actions to obtain accreditation of eligible UG and PG programmes within the specified time-frame and also for renewal of accreditation during the Project period.
- (b) Non-Academic Reforms:
- (i) *Exercise of autonomies-- Academic, Administrative, Managerial and Financial:* For institutions selected under this Sub-component, obtaining Autonomous Institution status during 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 autonomies to be exercised by Institutions are given in Annex-I.
- (ii) *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, compulsory that all institutions establish the Four Funds and put substantial amount in each Fund, as per the prescribed mechanism from the institutions own funds but not from the project funds (refer Annex-I).
- (iii) *Generation, retention and utilization of revenue generated through variety of activities:* In accordance with the eligibility criteria for States and Union Territories, all project institutions are to 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 a variety of activities such as conducting 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 for details).
Institutions are to utilize the revenue for building up the four funds, development activities, offering incentives to faculty and staff, instituting awards and rewards for students, faculty and staff, etc. with approval from the BoG 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 are to periodically report increases in the IRG generated.
- (iv) *Filling-up existing teaching and staff vacancies:* In accordance with an eligibility criterion for States and Union Territories, Government funded and aided project institutions are to be authorized by States/UTs to fill-up all faculty vacancies on a regular basis (over and above the benchmark value). Till such time that these vacancies are filled-up on a regular basis, appointments on 11-month or longer contract need to be permitted by the States/UTs. All institutions are accordingly expected to achieve the following targets of filled-up positions as per the AICTE prescribed faculty to student ratio (MHRD norms will apply for NITs and other CFIs):
- Within 2 years of joining the Project: For Government funded and Government aided institutions, 70% (with at least 55% regular and remaining on contract) and for private unaided institutions, 100% (with at least 60% regular and remaining on contract).
 - At the closure of the project: For Government funded and Government aided institutions, 80% (with at least 60% regular and remaining on contract) and for private unaided institutions, 100% (with at least 70% regular and remaining on contract).

As per AICTE norms, the faculty student ratio for UG programmes in Engineering/ Technology is 1:15. It is suggested that an attempt should be made to have a preferred ratio of 1:12. For the Masters programmes in Engineering/Technology, the required faculty student ratio is 1:12 but it should preferably be 1:10.

Where needed, the Board of Governors may recruit the desired faculty with incentives. The institutions should also make utmost efforts to fill staff vacancies.

- (v) *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 institutional projects. 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 spelt out in a decentralized administrative environment. 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. All actions of the Director in connection with Continuing Education, consultancy, faculty development, seminars and conferences should be reported to Board of Governors.

The details of Managerial, Administrative and Financial reforms are given in Annex-I.

(viii) Support to student needs:

Under this reform, it is considered important that focused efforts be made by institutions to improve the academic performance of SC/ST/OBC and academically weak students through innovative methods such as remedial teaching in professional subjects and soft skills development for increasing transition rate, pass rate and employability (refer Section-9 for details).

For increasing institutional focus on providing academic and guidance support to the SC/ST/OBC and academically weak students, all project institutions are required to constitute a Finishing School with a senior faculty as coordinator. All institutions are expected to spend at least 4% of their project allocation on this activity.

The suggested activities under the aegis of the Finishing School will be:

- a) Conducting remedial teaching throughout academic sessions for improving transition rate and pass rate of students,
(The faculty who teaches students during regular classes should not provide remedial class to those same students: this creates unavoidable conflict of interest.)
- b) Conducting specialized soft skills and professional skills development training during semester-breaks and vacations for increasing employability,
- c) Conducting high intensity training (of at least 2-weeks duration) for development of soft and professional skills in the students that graduate but fail to secure any employment, and
- d) Organizing campus interviews and making other efforts to secure employment for graduate engineers that complete the training under activity (c) above.

The Finishing School activities are to be conducted using the existing infrastructure, laboratories, workshops, computer centres, library and the existing faculty. Expertise from outside the institution and from employer organizations can also be used. There will be no course fee for students for either activity at (a) or (b) or (c). All students attending training under activity (c) will be responsible for their boarding and lodging arrangements and expenditure.

The activities of the Finishing School will be regularly supervised and monitored by the respective SPFUs, especially in respect of the number of graduates participating in the 2-week training and the percentage of these participants securing employment within 3-months of completion of training.

8. Important Notes:

- Note 1 :** *The activities like establishment of a new institution, large scale civil works, and introducing new UG programmes will not be eligible for funding.*
- Note 2 :** *Procurement of consultant services, if required for the activities listed in Table No. 18 from Sr. No. 2-8 for Centrally Funded, Government funded and Government aided institutions and for Private unaided Institutions activities listed in Table No. 18 (a) from Sr. No. 2-8 are permitted. The expenditure on Procurement of consultant services is to be booked against that particular activity. The services of consultants are to be procured by following the Procurement Manual and through the PMSS.*
- Note 3 :** *The Centrally Funded, Government funded and Government aided institutions should note that, “the procurement of goods is to be done strictly amongst the activities which are detailed-out in Section-2, 3, 6 and 7 under the “Improvement in Teaching, Training and Learning facilities, as required and justified by institutions to in respect of their institutional project objectives”.*
- Note 4 :** *For improving quality of education, overall faculty development through (i) improving subject competence, and (ii) pedagogical training, is envisaged in the Project. Pedagogical training is to be imparted to all teachers in the institutions to enhance teaching effectiveness.*
- Note 5:** *The private unaided institutions are encouraged to participate in the “Quality Enhancement for Engineering Education (QEEE)” Programme of Ministry of Human Resource Development. Such Private unaided institutions can acquire the Mirror Server, DTH receiver through the set top box; classroom with projector, speaker, laptop and other required facilities, Wi-Fi access to students, Access by students on some tablets/laptops; limiting the expenditure to the tune of maximum of Rs.7-8 Lakhs. The Private unaided institutions must follow the agreed rules and procedures as set out in the Procurement Manual while using PMSS.*

3.1.2 Sub-component 1.2 : Scaling-up Postgraduate Education and Demand-Driven Research & Development and Innovation**1. Objective:**

To significantly increase enrolment in Postgraduate²⁰ education and enhance engineering research and development and innovation.

2. Scope:

This competitive fund will support the best Institutional Development Proposals (IDPs) that can meet the above objective. About 75 institutions including a maximum of 20% i.e. 15 private unaided that already have Autonomous institution status (as defined by UGC and as applicable) meeting the Eligibility Criteria described in Section-4 (4.4.1) will be selected under this Sub-component. The institutions will be required to meet a set of eligibility criteria to demonstrate an existing R&D base that can be expended. The key target will be an increased enrolment of students in post-graduate education programmes, in particular the PhD programmes to address the faculty shortage. A secondary target would be increased industry collaboration with R&D to produce technological solutions with firms and increased R&D. The following types of institutions are eligible to submit an IDP under this Sub-component:

- (i) State Government funded, Government aided and private unaided institutions that had participated in TEQIP-I,
- (ii) State Government funded, Government aided and private unaided institutions that had not participated in TEQIP-I,
- (iii) Centrally Funded Institutions (CFIs) that had participated in TEQIP-I,
- (iv) Centrally Funded Institutions (CFIs) that had not participated in TEQIP-I,
- (v) Engineering Faculty/Engineering Teaching Departments/Constituent Institutions of Universities (both old²¹ and new), and
- (vi) Engineering Faculty/Engineering Teaching Departments/constituent institutions of Deemed to be Universities (both old and new).

Following types of engineering/technical education institutions will not be eligible for funding under this Sub-component:

- (i) Non-autonomous institutions,
- (ii) Polytechnic institutions,
- (iii) Architecture, Management and Pharmacy institutions or departments, and
- (iv) Master of Computer Application Departments/institutions.

3. Strategy:

Institutions that were supported under TEQIP-I, have already upgraded infrastructure for improving quality of UG education, gained experience in introducing innovations in academic and administrative practices and also in implementation of institutional reforms. These institutions are quite ready for further improvement in imparting quality education and scaling-up PG education and research activities. The Project would thus select such institutions that can meet this challenge.

It is expected that a few new²² institutions would also qualify to participate in this Sub-component. The private unaided institutions can also participate under this Sub-component.

Applicant institutions are to submit comprehensive and coherent Institutional Development Proposals that aim to achieve the above stated objective.

Institutions participating in this Sub-component can not apply in Sub-component 1.1.

²⁰ The term Postgraduate covers both Masters and Doctoral degree programmes in engineering.

²¹ The term 'old' refers to stand-alone institutions and Faculty / Department / constituent institutions of Universities and Technical Deemed Universities that had participated in TEQIP-I.

²² The term 'new institutions' 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 MTech/PhD Graduates)
- Increase in the Industry-Institute collaboration and scaling-up of R&D in areas linked to societal/industrial demand as indicated by:
 - Percentage of revenue from externally funded R&D projects and consultancies in total annual revenue from all sources
- At least 55% of its eligible UG and PG programmes accredited plus applied for.
- Having at least four Board of Governors (BoG)²³ meetings per year as documented by publication of the proceedings of the BoG meetings on the institution's website.
- Completion of performance and data audit.
- Completion of data inputs in the MIS.

The above will be the primary deliverables with respect to baseline for the institutions selected under this Sub-component.

In addition to the above stated deliverables, the project 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 students and faculty satisfaction
- 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 by:
 - The number of joint publications in refereed journals

5. Evaluation and Selection:

Selection will be based on the fulfilment of minimum eligibility benchmarks and merit of proposals submitted in the prescribed formats [Annex-IV (B)(b)]. Information given in the IDPs should be **verifiable**, to the point and be supported by **documents**.

6. Funding Pattern:

The financial allocation to each Centrally Funded, Government Funded and Government Aided Institutions is expected to be in the range of Rs.12.50 crore and Rs.4.00 crore for Private unaided institutions on cost sharing basis²⁴ for selected activities (see Table-1). For planning of fund requirements under various groups of activities, refer Section-6 [Table-16 and Table-16 (a)]. Further allocations may be made based on institutional performance against certain benchmarks, on a basis to be determined by MHRD from time to time. Allocation may also be reduced for non fulfilment of benchmarks.

7. The following activities are suggested under this Sub-component:**(A) Pre-selection:**

The institutions desirous to participate in this Sub-component should determine which activities they need to undertake in order to meet the objectives of this Sub-component; such activities should be set out in the Institutional Development Proposal, as amended from time to time by the institution's Board of Governors. Examples of activities institutions may wish to consider include:

(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 project activities into areas where they are strong, and where the greatest opportunities lie. Based upon the SWOT analysis, institutions are to prepare an action plan in the prescribed format that seeks to remove its weakness in respect of postgraduate education and R&D, increase enrolment into Masters and Doctoral programmes and scale-up research, development and innovation using its strengths.

²³ The term Board of Governors is synonymous with such term as Board of Management or Managing Committee of Faculty / Departments / constituent institutions / colleges of Universities and Deemed to be Universities.

²⁴ Funding for private unaided institutions under this Sub-component will be in the ratio of 60:20:20 for permissible activities i.e. 60% by the MHRD as grant, 20% by State as grant and 20% by institutions for select activities (see Table-13 & 16-A)

(ii) Preparedness for participation:

The selection of institutions in this Sub-component will be based on meeting of eligibility criteria and Quality of Institutional Development Proposal (IDP).

Institutions need to formulate an Institutional Development Proposal (IDP), based on their action plan. When developing the IDP, institutions can propose a combination of the following activities:

- a. Improvement in teaching, training and learning facilities through:
 - Establishment of new laboratories for new and existing PG programmes in engineering disciplines
 - Updation of learning resources
 - Procurement of furniture
 - Modernization and strengthening of libraries and increasing access to knowledge resources
 - Minor Civil works
- b. Providing Teaching and Research Assistantships for significantly increasing enrolment in existing and new Masters and Doctoral programmes in Engineering & applied sciences disciplines.
- c. Enhancement of R&D and institutional consultancy activities.
The IDP needs to indicate the research areas, likely number of research projects, faculty to be associated with each research project, expected outputs in terms of applicable products, patents, publications, etc.
The institutions are also expected to undertake the following:
 - Developing research interest among undergraduate and Masters students
 - Resource sharing with Industry through collaborative arrangements
- d. Faculty and staff development for improved competence based on Training Needs Analysis (TNA).
- e. Enhanced Interaction with Industry.
- f. Institutional Management Capacity enhancement.
- g. Implementation of institutional reforms.
- h. Providing Academic support for weak students.

Each Proposal must contain a plan for Faculty and Staff development that accounts for 10 % of the proposed project fund requirement. Further, civil works is to be limited to maximum 3 % of the institutional project outlay.

(B) Post-selection:

The institutions selected under this sub-component may undertake activities as suggested below:

(i) (a) Improvement in Teaching, Training and Learning facilities for Government funded and Govt. aided institutions:

Procurement of Goods [equipment; furniture; books & LRs, softwares; and minor items] and minor civil works may be required under the Project for improvement in teaching, training and learning facilities. A maximum of 45% of total project allocation (estimated Rs. 5.625 crore) can to be made for procurement by each project institution (Centrally Funded, Government Funded and Government Aided) for this activity. [Refer Table 16 S.No.(1)].

The various sub-activities are as follows:

- (a) *Starting new PG programme in emerging engineering disciplines:* Starting of new PG programmes (Masters / Doctoral) can be proposed in the IDP. The Project will support only those new PG programmes in emerging areas of engineering and technology that are AICTE approved and for which the availability of required faculty is assured.
- (b) *Establishment of new laboratories for new and existing PG programmes in engineering disciplines required for:*
 - Meeting additional/new requirements for existing PG programmes
 - Starting of new PG programmes
 - Promotion of research activities for students and faculty
- (c) *Updation of Learning Resources:* Continuous updating of Learning Resources (Books, CDs and Software) and procuring the same is part of the improvement to be brought about in the teaching learning process. Course specific softwares 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 softwares.

- (d) *Procurement of Furniture*: Furniture may be required for library and establishment of new laboratories. Provision would need to be made for such procurement in the Institutional Development Proposal.
- (d) *Modernization and strengthening of Libraries and increasing access to knowledge resources*:
For details, please refer to Sub-component 1.1.
- (e) *Minor Civil works*: The minor civil works (repairs and refurbishment) 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.
- The expenditure on civil works should not exceed 3% of the Institutional project outlay.

Note : Govt. funded and Govt. aided Institutions should follow scrupulously the agreed rules and procedures as set out in the Financial Management and Procurement Manual.

(i) (b) Improvement in Teaching, Training and Learning facilities for Private unaided Institutions:

*Acquiring text books, e-journals and software*²⁵: These institutions may acquire the text books, e-journals and software with the approval of Institution's BoG and under information to the respective SPFU.

For participation in Quality Enhancement in Engineering Education (QEEE) programme, the institution may purchase following hardware components from the project fund (not exceeding Rs.7-8 Lakhs) by following the World Bank norms.

- (i) Mirror Server
- (ii) DTH receiver through the Set Top Box
- (iii) Class room with projector, speaker, laptop and other facilities
- (iv) Wi-fi access to students
- (v) Access by students on some tablets/laptops.

Further, these institutions should ensure that the allocated funds be spent judiciously covering all the envisaged activities under the project for the private unaided institutions, so that the objectives of the project are achieved. Moreover, it should be ensured that these institutions should follow scrupulously the agreed rules and procedures as set out in the Financial Management and Procurement Manual.

(ii) Providing Teaching and Research Assistantships for significantly increasing enrolment in existing and new Masters and Doctoral programmes in Engineering & applied sciences disciplines:

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

Institutions receiving funds under the Project are encouraged to seek enhancement of Masters degree seats from AICTE so as to increase the enrolment in Masters programmes. Employees sponsored from Industry will be allowed to be enrolled in all Masters and Doctoral programmes. The institutions may also seek permission 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.

GATE qualified students enrolled in Masters courses will receive scholarships as per AICTE norms from the Government sources. The meritorious students admitted by the institutions for Masters Courses that do not receive GATE/other scholarships, may receive Teaching Assistantships from TEQIP funds.

The institutions could also provide Research Assistantships through TEQIP funds to the enrolled Doctoral students that do not get any scholarships through NDF/other schemes.

These Teaching and Research Assistantships are to be provided by institutions as per the prevalent UGC/AICTE norms. The students receiving Teaching or Research Assistantships 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 maximum three months.

²⁵ Updated as per Minutes of Review Meeting held on 19th June 2013.

(iii) Enhancement of Research & Development and Institutional Consultancy Activities:

National Knowledge Commission has stated, "Research and Development are pre-requisites for teachers in top-flight research institutions that supply man-power for research and for development of cutting edge Industry." All Technical Education 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.

Institutions need to market their services to Industry. The Industry should be encouraged to give live problems to the institution for solutions. The faculty who have expertise should be encouraged to take up consultancy assignments, which would directly and indirectly benefit the institution, faculty and students. Internal Revenue Generation (IRG) should receive a boost, and some of the income should be shared with faculty, staff and students as per the norms approved by the institution's BoG. Regular interactions through consultancy are likely to promote a healthy and useful relationship between the industries and institutions. 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.

Institutions are also expected to offer "Seed grant"²⁶ for research to faculty members and / or students to venture into innovative research and to strengthen research culture in institutions.

In addition to the above, the institutions may undertake the following:

- **Development of research interest among undergraduate and Masters students:**

Institutions need to encourage UG and Masters 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 with industry through collaborative arrangements:**

The Project encourages institutions to establish MoUs with neighbouring institutions and Industries on viable collaborative/consultancy 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 centres, major lab/workshop equipment and libraries, and to also engage experts from Industries on short-term and/or on part-time basis for enhancement of R&D and institutional consultancy activities.

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

For details, please refer to Sub-component 1.1

(v) Enhanced Interaction with Industry:

For details, please refer to Sub-component 1.1

(vi) Institutional Management Capacity enhancement:

For details, please refer to Sub-component 1.1.

(vii) 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:*

²⁶ Updated as per Minutes of Review Meeting held on 19 June 2013.

For institutions selected under this Sub-component, possession of “Autonomous Institution status” is a mandatory requirement for receiving project funds. Institutions are also expected to exercise reasonable levels of Administrative, Financial and Managerial autonomies. The details of the desired Financial, Managerial and Administrative autonomies 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 a variety of activities:* For details, please refer to Sub-component 1.1.
- e) *Institutions to fill-up existing teaching and staff vacancies:* All institutions are expected to achieve the following minimum targets[#] of filled positions as per the AICTE prescribed faculty student ratio (MHRD norms will apply for NITs and other CFIs) :
 - Within 2 years of joining the Project: For Government funded and Government aided institutions, 80% (with at least 70% regular and remaining on contract) and for private unaided institutions, 100% (with at least 70% regular and remaining on contract).
 - At closure of the project: For Government funded and Government aided institutions, 90% (with at least 75% regular and remaining on contract) and for private unaided institutions, 100% (with at least 75% regular and remaining on contract).

As per AICTE norms, the faculty student ratio for UG programmes in Engineering / Technology is 1:15. It is suggested that an attempt should be made to have a preferred ratio of 1:12. For the Masters programmes in Engineering/Technology, the required faculty student ratio is 1:12 but it should preferably be 1:10.

Efforts to fill staff vacancies are to be made.

- 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:*

Accreditation of programmes is one of the quality assurance mechanisms. The accreditation target (obtained and applied for) to be achieved by the end of the Project is at least 55% of eligible programmes. 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.

(viii) Support to student needs:

Under this reform, it is considered important that focused efforts be made by institutions to improve the academic performance of SC/ST/OBC and academically weak UG students through innovative methods such as remedial teaching in professional subjects and soft skills development for increasing transition rate, pass rate and employability (refer Section-9 for details).

For increasing institutional focus on providing academic and guidance support to the SC/ST/OBC and academically weak students, all project institutions are required to constitute a Finishing School with a senior faculty as coordinator. All institutions are expected to spend at least 2% of their project allocation on this activity in accordance.

The suggested activities under the aegis of the Finishing School for UG students will be:

- a) Conducting remedial teaching throughout academic sessions for improving transition rate and pass rate of students,
(The faculty who teaches students during regular classes should not provide remedial class to those same students: this creates unavoidable conflict of interest.)

[#] Updated as per 5th NSC Meeting decision.

- b) Conducting specialized soft skills and professional skills development training during semester-breaks and vacations for increasing employability,
- c) Conducting high intensity training (of at least 2-weeks duration) for development of soft and professional skills in the students that graduate but fail to secure any employment, and
- d) Organizing campus interviews and making other efforts to secure employment for graduate engineers that complete the training under activity (c) above.

The Finishing School activities are to be conducted using the existing infrastructure, laboratories, workshops, computer centres, library and the existing faculty. Expertise from outside the institution and from employer organizations can also be used. There will be no course fee for students for either activity at (a) or (b) or (c). All students attending training under activity (c) will be responsible for their boarding and lodging arrangements and expenditure.

The activities of the Finishing School will be regularly supervised and monitored by the respective SPFUs, especially in respect of the number of graduates participating in the 2-week training and the percentage of these participants securing employment within 3-months of completion of training.

8. Important Notes:

Note 1 : *The activities like establishment of a new institution, large scale civil works, and introducing new UG programmes will not be eligible for funding.*

Note 2 : *Procurement of consultant services, if required for the activities listed in Table No. 19 from Sr. No. 2-8 for Centrally Funded, Government funded and Government aided institutions and for Private unaided Institutions activities listed in Table No. 19 (a) from Sr. No. 2-8 are permitted. The expenditure on Procurement of consultant services is to be booked against that particular activity. The services of consultants are to be procured by following the Procurement Manual and through the PMSS.*

Note 3 : *The Centrally Funded, Government funded and Government aided institutions should note that, "the procurement of Goods is to be done strictly amongst the activities which are detailed-out in Section-2, 3, 6 and 7 under "Improvement in Teaching, Training and Learning facilities", as required and justified by institutions in respect of the institutional project objectives.*

Note 4 : *For improving quality of education, overall faculty development through (i) improving subject competence, and (ii) pedagogical training, is envisaged in the Project. Pedagogical training is to be imparted to all teachers in the institutions to enhance teaching effectiveness. In addition to the institution's efforts for the pedagogical training, pedagogical training will be implemented by NPIU through IITs. Details of the subcomponent 'Faculty Development for Effective Teaching (Pedagogical Training)' are described in Section 3.1.4 (Sub-component-1.3).*

3.1.3 Sub-component 1.2.1 : Establishing Centres of Excellence

1. Objective:

To support establishment of Centres of Excellence for collaborative and multi-disciplinary research within specific thematic areas of regional or national importance.

2. Scope:

Establishment of about 30 Centres of Excellence (CoE) in Centrally Funded Institutions (CFIs), Government funded, Government aided and Private unaided Institutions for collaborative research will be supported in eligible institutions out of those selected under Sub-component 1.2 and having the potential for undertaking applicable and collaborative research. An additional fund will be given for the same.

The thematic areas could include the following: Manufacturing, Information & Communication Technology (ICT), Renewable Energy (Solar, Wind, Wave Energy, etc.), Hydrology and Water Resource Management, Traffic & Highway Safety, advanced transport systems (urban and rural), Intelligent Transportation System, Advanced Materials, Disaster Management, Nanotechnology, Security Technology, Semi Conductors, Logistics and Distribution systems, Bio-medical Instrumentation, Waste Management, Bio-Technology, Image Processing, Sensor Technology, Turbo machinery and Propulsive systems, Urban structures, Pollution and climate, robotics, Bio-medical technology (bone, joints, tissue technology), Forensic science, Archaeological science (epigraphy, radio carbon dating, heritage building, archaeo-metallurgy, etc). Fundamental research areas will be encouraged such as advanced mechanics, flow control and fluidics, etc.

This is an illustrative list. Centres within other thematic areas of demonstrated regional or national importance will be considered as well.

3. Salient Features of a CoE:

- The CoE should be relevant to Indian technological needs and have a long-term vision of evolving technological requirements and changing natural/societal constraints
- A Centre of Excellence (CoE) is expected to be a collaborative activity between a team of high quality researchers in the institution and researchers or research users in several companies or organizations. In cases where the nature of research is partially related to production or improvement of public goods, collaboration may include appropriate public agencies. In all cases, however, CoEs will need to demonstrate that the majority of their collaborators are from private firms (if such exist within the thematic research areas).
- The CoE is expected to contribute significantly both to economic advancement and to building a robust research culture in institutions that is more applied and collaborative in nature. In particular, the CoE is expected to address emerging industry and societal needs in close collaboration with industries and users. The scientific merit of the research undertaken is as important as the relevance to economic growth and development.
- The CoE is expected to further scale-up Postgraduate Education through increased enrolments for Masters and Doctoral programmes in topics closely linked to the thematic areas of the CoE and therefore closely linked to economic and societal needs. Some of these students could also undertake their research within collaborating firms.
- The Centre should join faculty members from several departments around a common research programme, in which all the collaborating departments are expected to share their physical and intellectual resources with each other. Evaluation will give greater weight to CoEs that are multi-disciplinary in nature.
- The Centre is expected to trigger an R&D culture in the institutions as evidenced by significant increase in commercial applications and research outputs, collaborative and sponsored research, publications, in reputed national/international journals and conferences, patents, innovations, commercialized products and PhD enrolments.
- The Centre is expected to increase collaboration with National and International academic and research institutions/organizations. This will facilitate transfer of technology and knowledge to improve the quality of research and development, and aim to create a critical mass of researchers with potential for global research and development.

4. Deliverables:

The CoEs are expected to ensure the following deliverables:

- **Increased collaborative and applied research as documented by:**
 - Increase in external R&D funding, notably Industry sponsored R&D projects and industry chairs
 - Increase in patents filed and obtained or other manners of knowledge commercialization and transfer
- **Increased production of advanced human capital as measured by:**
 - Increase in enrolment of Masters and Doctoral students.
 - Increase in number of MTech/PhD Graduates.
 - Increase in placement of graduate students and research staff in short- and long-term positions within collaborating firms as well as with local industry.
 - Updated and more relevant undergraduate and postgraduate engineering curricula.
- **Developing long term R& D capability as evidenced by:**
 - Increase in publications in refereed Journals.
 - Increase in joint publications in refereed Journals with international authors.
 - Increase in joint programmes/projects/exchanges with international research organisations and institutions.
 - External awards for research at the National and International levels.
 - Publications of books and technical reports.

5. Selection:

Institutions for establishing a CoE will be selected through a competitive process based on the merit of their proposal(s). One of the important attachments with the proposal is the MoU agreed with relevant industries/research institutions/organisations [see Annex-IV (B).c]. Domain/subject experts from the IITs/IISc will evaluate the proposals and recommend meritorious proposals for selection. Some institutions may be required to undertake improvements in their proposal before commencement of funding. A maximum of two Centres of Excellence can be supported in **Government institutions** under this Sub-component. It is expected that only a very few number of institutions will receive award of two CoEs, if any at all. Institutions are encouraged to focus efforts on only one CoE proposal.

6. Funding Pattern:

The additional funding to the institution for carrying out the activities of a Centre of Excellence is expected to be around Rs. 5.00 crore over 2-½ years (this would be in addition to allocation under Sub-component 1.2). The bulk of the funding is to be spent on research within India. This funding is towards research equipment, research material, books and learning resources, consultant services, research studies, training, 10 to 15 additional teaching/research assistantships, study tours; workshops, seminars, etc. in thematic areas and commercialisation costs, such as business-plan development, proto-typing and patenting [see Table-19(b) and 19 (c) of Project Implementation Plan (PIP) on permissible and non-permissible expenditures].

Continuation of funding beyond the Second Year of award of CoE will be subject to review of progress towards the agreed deliverables, and fund utilisation rate.

The following activities are suggested under this Sub-component:

(i) Improvement in research and development facilities:

For Government funded and Government aided Institutions :

Procurement of Goods [equipment; furniture; books & LRs, softwares] and minor civil works may be required under the CoE for improvement in research and development facilities. A maximum of 55% of total allocation (estimated Rs. 2.75 crore) can to be made for procurement by each CoE (Centrally funded, Government funded and Government aided Institutions) for this activity. [Refer Table 17 S. No.(1)].

The various sub-activities are as follows:

- a) *Establishment of new laboratories for:*
 - Starting new Masters and Doctoral programmes relevant to thematic areas,
 - Establishment of incubation centres,
 - Establishment of Technology transfer cell, and
 - Increased research ambiance by providing state-of-art research facilities in thematic areas.
- b) *Establishment of a knowledge resource centre (library) in the thematic area:* A knowledge resource centre (library) may be setup for each CoE provided with a comprehensive collection of books, journals and reference materials (in print and electronic form), proceedings of conferences and seminars, published and unpublished reports, research studies, thesis, links to databases and other resource centres, links to experts in thematic areas, etc. The knowledge resource centre may also be provided with relevant equipment.
- c) *Procurement of Furniture:* Furniture may be required for establishment of new laboratories and knowledge resource centre. Provision would need to be made for such procurement in the Institutional Development Proposal for CoE.
- d) *Minor civil works:* The minor civil works to be undertaken, if any, by the institution under this category are to be confined to laboratories only such as changing of the existing functions of an old structure/space to a new proposed function.

The expenditure on civil works should not exceed 3% of the total allocation for the CoE.

Note : Govt. funded and Govt. aided Institutions should follow scrupulously the agreed rules and procedures as set out in the Financial Management and Procurement Manual.

For Private unaided Institutions :

- (e) *Acquiring text books, e-journals and software*²⁷: These institutions may acquire the text books, e-journals and software with the approval of Institution's BoG and under information to the respective SPFU.

Further, these institutions should ensure that the allocated funds be spent judiciously covering all the envisaged activities under the project for the private unaided institutions, so that the objectives of the project are achieved. Moreover, it should be ensured that these institutions should follow scrupulously the agreed rules and procedures as set out in the Financial Management and Procurement Manual.

(ii) Providing Teaching and Research Assistantships for enrolment in Masters and Doctoral programmes in topics linked to economic or societal needs in the thematic areas:

The aim is to attract students to Masters and Doctoral programmes started under CoE and provide Assistantships. It is envisaged that the programmes under CoE will necessarily be linked to economic and social needs in the thematic areas. Institutions may give emphasis to start Masters (by research) programmes. Institutions also need to ensure availability of qualified faculty, Post-doctoral fellows, visiting experts and essential technical staff.

It is expected that each institution participating in this Sub-component will provide at least 10 to 15 additional Teaching/Research Assistantships per CoE to the students that do not receive GATE/other scholarships (scholarships are already available to the GATE qualified students and those doing PhD under QIP) as per the norms prescribed by UGC/AICTE . Candidates sponsored by Industry will be allowed to enrol in all PG programmes.

Those receiving assistantships will be required to devote 8-10 hours per week for research. Outstanding candidates enrolled for PhD, in select cases, could be supported to attend International workshops, Internship at renowned institutions/laboratories/industry (Indian or global).

Starting of new AICTE approved PG/Doctoral programmes in thematic area of a CoE will be supported under the Project.

²⁷ Updated as per Minutes of Review Meeting held on 19th June 2013.

(iii) Collaboration with Industry for applicable research and product development:

This can be achieved through a combination of the following as well as other activities:

- a) *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 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 and development that can make institutions with CoEs as Centres 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.

- b) *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 potential in terms of successful market penetration and the degree of innovation is a special challenge for research and development.

(iv) Collaboration with Industry in Education and Research:

CoEs are also required to collaborate in the area of education and training of Postgraduate students. The Industry-academia linkages are to be encouraged by associating students with Industry-sponsored projects under the guidance of senior faculty members and private sector researchers. This collaboration could take the form of:

- a) *Attracting top-class talent through Masters and Doctoral programmes in topics linked to economic or societal needs in the Centre's thematic areas:* A key aim is to attract students to Masters and Doctoral programmes started under CoE and provide Assistantships. The CoEs are expected to contribute to the training of R&D manpower for industry. The increased industry collaboration should raise the profile, quality and relevance of the post-graduates and thereby be able to attract top-class talent to the PG programmes. Further, some of these graduates are expected to be spun out to local industry eventually. Institutions may give emphasis to start Masters (by research) programmes. CoE proposals should be explicit about the areas of PG education to be improved/offered, how it relates to the core research mandates, and, where applicable, how it will draw on resources outside the CoE and/or the host institution. Starting of new AICTE approved PG/Doctoral programmes in thematic area of a CoE can be supported under the project provided that these programs can be started by the end of calendar year 2012.

- b) *Introduce a "PhD in Industry" Programme:* CoEs are encouraged to introduce a "PhD in Industry" programme. Such programmes aim to provide an opportunity for PhD students in the CoEs to pursue research in a corporate setting with the participating company. Each PhD will have an academic advisor from the institution and an industry advisor from the sponsoring company. The student's research project will be part and parcel of the company's research agenda. Thereby, postgraduate students will be exposed to real-life industry practices, and have first-hand experience and understanding of the engineering and business skills required to succeed in this profession. Host company could pay in-cash to the student on a regular basis to increase the value of their scholarship/assistantship. The company would also offer office space and an industry mentors' time. Host companies may also provide other non-cash support such as the provision of travel expenses and additional training opportunities, etc.

(v) National/International collaboration for Research and Development activities with Academic Institutions and R&D organizations:

The institutions with CoE need to collaborate with laboratories, professional bodies and Societies, R&D organizations, 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.

(vi) Enhancing research competence of faculty and knowledge sharing in thematic areas:

The faculty training should be closely linked to the objectives of CoE and coordinated with the proposed investment in equipment, learning resources and facilities. Institutions should plan to spend at least 10% of the outlay for CoE on faculty training.

The faculty training can be carried out through the following activities.

- a) *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 their performance and for achieving the objectives of CoE. Faculty should be on the lookout for appropriate opportunities.
- b) *Participation in seminars, conferences and workshops*: Faculty is to be encouraged to participate in seminars, conferences and workshops both National and International. Short-term research/post-doctoral visits to laboratories/institutions; short-leave for carrying out collaborative research at institutes of repute will be permitted. The faculty participating in such activities need to be encouraged and supported 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 further collaborations with academic institutions and R&D organizations within India and outside the India. The institutions are required to establish collaborations through MoUs.
- c) *Seed grant* : Small seed grant to researchers to venture into new directions within the specified theme . This will give independence to the individual researcher.
- d) *Accountability*: The faculty after undergoing training are expected to :
 - Prepare a report on the training undertaken and the experience gained.
 - Share their experience with students and other faculty/staff through seminars.
 - Host the report on the institution's web site which is to be linked to the NPIU's web site.

8. Important Notes:

- 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** : *Procurement of consultant services, if required for the activities listed in Table No. 19 (b) of PIP from Sr. No. 2-5 for Centrally Funded, Govt. Funded and Aided Institutions and for Private unaided Institutions activities listed in Table No.19 (c) Sr.No.1-4 activities are permitted. The expenditure on Procurement of consultant services is to be booked against that particular activity. The services of consultants are to be procured by following the Procurement Manual and through the PMSS.*
- Note 3** : *The project institutions should note that, "the procurement of goods is to be done strictly amongst the activities which are detailed-out in Section-2, 3, 6 and 7 of PIP under the "Improvement in Research and Development facilities", as required and justified by institutions to fulfil the project objectives.*

3.1.4 Sub-component 1.3 : Faculty Development for Effective Teaching (Pedagogical Training)**1. Objective:**

To improve competence of faculty from project institutions through Pedagogical Training for effective teaching to improve the learning outcomes of Engineering students.

2. Scope:

To cover maximum faculty members from the project institutions.

3. Strategy:

Students often face difficulties with faculty who are not able to impart the lessons / knowledge because of inadequate skill or experience. Improving the effectiveness of teaching is a very important intervention to help the students.

4. Methodology:

The pedagogical trainings will be provided through IITs in this component.

- a) The main focus of the project is on improvement in academic quality of the engineering institutions. Collaboration with IITs to stimulate Quality Circles between IITs and Project Institutions is one of the interventions. The objective of the Quality Circles is to bring faculty and students of different engineering disciplines on a common platform on specific academic subjects.
- b) The concept of the Quality Circles is to create a subject based interaction between IITs and TEQIP institutions mapped on a regional basis. All project institutions will be mapped to different IITs.
- c) IITs can establish Knowledge Incubation Cell for TEQIP-II (KIT) at their premises.
- d) To facilitate such activities a dedicated Knowledge Incubation Cell may be setup. Knowledge Incubation Cell around an IIT will focus on following activities:
 1. Innovation content development
 2. Teaching work-shops in specific cluster of resources
 3. Short-courses and workshops in niche areas
 4. Seminars/Conference
 5. Short-term visit of graduate students from TEQIP institutions
 6. Sabbatical/long-leave stay to teachers and researchers from TEQIP institutions

5. Deliverables:

The deliverables for this Sub-component are:

- Number of faculty trained
- Improvement in teaching performance based on student's feedback during performance audit

6. Funding Pattern and Fund Release Mechanism:

NPIU will bear the full cost for pedagogical training provided by IITs, however, the participants for attending the workshops will book their TA/DA and other expenses under faculty and staff development head of expenditure.

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 level and Institutional levels to effectively implement the institutional reforms.

It also aims to provide timely, sufficient, precise, and reliable information to improve and assess performance of the project institutions through effective Project Management.

There are two Sub-components under this Component.

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 levels for effective implementation of academic and non-academic reforms.

2. Scope:

The initiatives to improve policies and management practices that contribute to promotion of quality in Engineering Education at Central and State levels.

3. Strategy:

The Project at Central level will support:

- Professional development of Technical Education and TEQIP administrators in the project States and project institutions
- Initiatives for Effective Governance System of institutions at the level of Board of Governors, and
- Establishing Management Capacity Development Centres at IIMs for training of TEQIP institutions

4. Deliverables:

Improved performance at the State and Institutional levels through the activities/projects²⁸ are expected under this Sub-component:

S. No	Indicative activities/projects	Deliverables
i	Conducting Professional Development Programme for the Project institutions and Technical Education Policy Planners, Administrators and Implementers at Central, State and Institutional level	<ul style="list-style-type: none"> • Effective project implementation • Implementation of academic and non-academic reforms in project institutions
ii	Establishment of an Expert Advisory Group for Effective System Governance	<ul style="list-style-type: none"> • Guidelines for effective functioning of Board of Governors
iii	Establishing Management Capacity Development Centres at IIMs for training of TEQIP institutions	<ul style="list-style-type: none"> • Enhanced knowledge and skills in institutional management • Efficient achievement of institutional development goals

5. Funding Pattern:

Funding will be decided by the NPD.

6. The activities suggested under this Sub-component are described below:

(i) Conducting Professional Development Programme for Technical Education Policy Planners, Administrators and Implementers at the Central, State and Institutional levels:

Professional development for groups of Technical Education policy planners, administrators and implementers would be financed. The potential professional development activities are Study tours in India as well as in foreign countries with strong policy leadership/planning entities in Higher/Technical Education and short-term professional training programmes.

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 of Project institutions and project implementers from the MHRD, the NPIU, the State Technical Education Departments and the SPFUs.

²⁸ The activities/projects listed in the table are indicative (non-restrictive). Entities can submit innovative projects.

The minimum group size for these activities would be 15-20 participants. The NPIU would initiate and organize such Professional Development Programmes. Detailed motivation and learning objectives of these Programmes would be described along with a justification of the chosen provider/destination and institutions/organizations to be visited. All foreign study tours financed under this activity will be reviewed by the National Project Director in accordance with the Guidelines (refer Annex-VII).

(ii) Establishment of an Expert Advisor Group (EAG) for Effective System Governance:

The purpose is to establish an Expert Advisor Group (EAG) at the National level with approval of the NPD composed only of existing Chairs, Members of Board of Governors and eminent academicians that will be charged with the responsibility of developing and recommending Guidelines for effective functioning of Board of Governors. The functioning of this Group 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 bodies, 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 developed 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.

(iii) Establishing Management Capacity Development Centres at IIMs for training of TEQIP institutions:

The establishment of Capacity development Centres at IIMs aims to enhance interest, knowledge and skills in management and leadership areas. Resulting in quality enhanced knowledge and skills in institutional management, resulting into efficient achievement of institutional development goals.

3.2.2 Sub-component 2.2 : Project Management, Monitoring and Evaluation

1. Objectives:

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

- To plan, organize and manage resources to bring about successful achievement of Project objectives.
- To monitor and evaluate the performance of project institutions.
- To mentor the project institutions towards quality improvement and to audit the institutional performance in achieving their respective targets.

2. Project Management:

i) Objective:

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

ii) Scope:

The MHRD, the NPIU, the SPFUs and the project institutions will be covered under this Sub-component.

iii) Strategy:

Ensuring successful and timely implementation of the Project at the National, State and Institutional levels and achieving targets for the deliverables, coordinating resources and integrating all the activities under the Project components in accordance with the Project Implementation Plan.

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

- a) 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.
- b) The Project at the National level will be managed by a National Project Directorate, located in the MHRD and headed by a National Project Director (NPD) at the level of Special Secretary/Additional Secretary/Joint Secretary to the Government of India. The NPD will be assisted by a National Project Directorate in MHRD and the National Project Implementation Unit (NPIU).
- c) At the State level, the Project will be guided by State Steering Committees (SSCs) assisted by the respective State Project Facilitation Units (SPFUs) located within the Department of the State Government responsible for Engineering Education.
- d) At the Institutional level, the Project will be implemented by the Institutional TEQIP Units under the overall guidance of respective Boards of Governors (BoG).
- e) CIHEC will advise the NSC on enhancing Industry-Institution linkages.
- f) State Private Sector Advisory Groups (S-PSAGs) will advise the respective SSCs on enhancing Industry-Institute linkages.

iv) Funding Pattern:

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

3. Project Monitoring:

i) 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.

ii) Scope:

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

iii) Strategy:

All the institutions under the Project, the SPFUs and the NPIU will be linked through a Management Information System (MIS) developed for the Project.

iv) Funding Pattern:

All monitoring activities at the national level will be funded through NPIU's budget.

v) Project Monitoring:

The project will be monitored through:

(i) **Performance Indicators including Key Performance Indicators with Target values (KPIs) :** refer Table-3 and Table-4 .

(ii) **Web Based Management Information System (MIS):** A web-based Management Information System (MIS) will be used as a tool to meet the Monitoring & Evaluation requirement of the Project. MIS will track implementation of Key Project Inputs, Outputs, Outcomes and Impact corresponding to Project activities through Performance Indicators developed for 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 for the Project will link all the project institutions, the SPFUs and the NPIU. All respondent entities will access MIS through the internet. Access will be conditional to persons nominated by the respondent entities 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 have links to the websites of the AICTE, NBA, NAAC, UGC & MHRD.

(iii) **Web Based Financial Monitoring Report (e-FMR):**

The details are given in Section-6.

(iv) **Web Based Procurement Management Support System (PMSS):**

The details are given in Section-8.

Table-3
Performance Indicators with Project end target values

Sr. No	Indicator	Project end target (Oct 2016)
1	Share of supported programs that are accredited or applied for	55%
2	Percentage Faculty with at least an M. Tech (regular and contract)	88
3	Total number of Master and PhD students	41000
4	Number of publications in refereed journals (within the field of Engineering)	15000
5	Percentage of Faculty with or pursuing M. Tech and PhD (regular and contract)	90
6	Percentage of externally funded research and development projects and consultancies in total revenue	12
7	Transition rate of students from disadvantaged backgrounds from the first year to second year of undergraduate study	60%
8	Direct Beneficiaries (number)	405,000
	of which female (percentage)	30%
9	Percentage of institutions with academic autonomy	70
10	Number of faculty members that have benefitted from the teaching effectiveness training (under sub-component 1.3) through IITs	2200
11	Share of TEQIP Supported Engineering Institutions from lagging states as agreed by DEA and World Bank (i.e. Bihar, Chhattisgarh, Rajasthan, Jharkhand, Orissa, Uttar Pradesh, Madhya Pradesh)	20
12	Number of governance self reviews received	190
13	Number of Governance Development plans received	180
14	Fully functional MIS : Number of institutions reporting at least 70% of the indicators	160
15	Increase in the satisfaction index of student and faculty	4.30
16	Transition rate of all students from the first year to the second year of under graduate study	65%
17	No. of TEQIP Assistantships	
	a) M.Tech	3350
	b) PhD	2000
18	Number of faculty members attended training in subject domain	7800
19	Number of faculty/officials attended management development training at IIMs	2300
20	Percentage of regular faculty positions filled-in Government funded and aided institutions under :	
	a) Sub-component 1.1	62
	b) Sub-component 1.2	75
21	Percentage of regular faculty positions filled-in Private unaided institutions	100

Note : First 15 are Key Performance Indicators (KPIs)

Table-4[#]
Key Performance Indicators with Target Values

S. No.	Indicator	Baseline (2009-2010)	Project end target (Oct 2016)
1	Share of supported programs that are accredited or applied for	30	55
2	Percentage Faculty with at least an M. Tech (regular and contract)	45	88
3	Total number of Master and PhD students	30000	41000
4	Number of publications in refereed journals (within the field of Engineering)	7032	15000
5	Percentage of Faculty with or pursuing M. Tech and PhD (regular and contract)	63	90
6	Percentage of externally funded research and development projects and consultancies in total revenue	6	12
7	Transition rate of students from disadvantaged backgrounds from the first year to second year of undergraduate study	45	60
8	Direct Beneficiaries (number)	300,000	405,000
	of which female (percentage)	26%	30%
9	Percentage of institutions with academic autonomy	30	70
10	Number of faculty members that have benefitted from the teaching effectiveness training (under sub-component 1.3) through IITs	--	2200
11	Share of TEQIP Supported Engineering Institutions from lagging states as agreed by DEA and World Bank (i.e. Bihar, Chhattisgarh, Rajasthan, Jharkhand, Odisha, Uttar Pradesh, Madhya Pradesh)	17.7	20
12	Number of governance self reviews received	--	190
13	Number of Governance Development plans received	--	180
14	Fully functional MIS -Number of institutions reporting at least 70% of the indicators	--	160
15	Increase in the satisfaction index of student and faculty	--	4.30

4. Project Evaluation:

- i) Objective: To assess achievements and shortfalls in Project implementation through surveys, audits, studies and national level reviews.
- ii) Scope: The Project evaluation activities are **mandatory** for the NPIU, the SPFUs and all the project institutions.
- iii) Strategy: The Project evaluation activities will cover all entities participating in the Project, and will be done through:
 - a) Assessment of Institutional performance towards improving education quality and service delivery through Institutional Performance Audits.
 - b) Assessment of Institutional data through Data-Audits for ensuring good data quality.
 - c) Assessment of the implementation strategy through Implementation Surveys adopted during Project design and corrective measures to be taken for improvement.
 - d) Assessment of performance achieved against set targets through bi-annual and Mid-Term Reviews conducted jointly by the MHRD/NPIU and the World Bank.
 - e) Overall assessment of the objectives achieved under the Project through a rigorous Impact Assessment Study.

The Assessment Surveys and Performance and Data Audits will be conducted until the Project closure. Consulting firms will be employed to conduct the surveys as and when required. Performance and Data Audits will be conducted bi-annually. National level Joint Reviews of the whole Project will be carried out twice in a year.

- iv) Funding Pattern: All activities under Project evaluation, except mentoring will be funded by the NPIU and the SPFUs. The expenses incurred for mentoring of the Institutions will be met through respective Institutional project funds.
- v) The following activities are suggested for Project Evaluation:
- a) Assessment Surveys: The Assessment Surveys, conducted by the NPIU, 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:
 - Student Satisfaction Surveys: To measure the quality of education being provided by project institutions, Student Satisfaction Surveys will be conducted. The Surveys will measure students' satisfaction with methods and quality of teaching and learning, quality of faculty, adequacy and quality of infrastructure and facilities available for academic and other co-curricular activities, etc.
 - Faculty Satisfaction Surveys: 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 get feedback from officials of nodal 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 can be utilized for corrective action at the National, State and Institutional levels. The Surveys will be web based. It will be conducted twice, firstly before the Mid-Term Review (after two years from the implementation of the Project) and secondly at the end of the Project.
 - b) 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 the Project. These audits will verify implementation in accordance with the agreed NPIU/MHRD-World Bank procedure and guidelines and will combine factual assessment with qualitative assessment.
 - Performance and Data Audits: Performance and Data audits will be carried out annually to assess progress made by all project institutions to achieve set goals as per their plans given in IDPs like implementation of agreed reforms, accuracy, and validity of data, progress in faculty development, utilization of resources and achievement of targets set by the Institution to achieve academic excellence. The Performance Auditors will be senior academicians, appointed out of a pool of mentors created from persons suggested by the SPFUs and those identified by the NPIU. They will be appointed for all project institutions by the NPIU. The Performance Auditors will be assisted by skilled professionals for conducting the Data Audits. The Data Auditors will be appointed by the SPFUs for their institutions and the NPIU for CFIs. All expenses for Performance and Data audits will be met by the SPFUs and the NPIU as per norms approved by the NPD from time to time. The results of performance audits will be disclosed at NPIU website. *Kindly refer "Handbook for Mentors and Performance Auditors"*.
 - Fiduciary Reviews: The Fiduciary Reviews, conducted by the World Bank, will cover Post-Procurement Reviews and Financial Management Reviews. The emphasis will be to verify that the institutions follow the fiduciary guidelines described in this PIP and in the procurement and financial management manuals.
 - a) Resources Utilization Study: The objective of the Resources Utilization Study, to be conducted by the NPIU, 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; (i) during the implementation of the Project and (ii) at the end of the Project.
 - b) Bibliometric Study: It will quantitatively assess research output and publication performance in Engineering Institutions. It will be got conducted twice by the NPIU, firstly before the commencement of the Project (for 102 TEQIP-I Institutions having PG courses) and secondly at the end of the Project for all project institutions.
 - c) 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 Engineering Education offered by project institutions and in producing better skilled and more employable graduates. The study, conducted by the NPIU will measure the extent to which Project objectives have been achieved. The Study will be undertaken towards the end of the Project and will be outsourced.

- f) Reviews: Two types of reviews will be organized by the NPIU to assess the qualitative improvements achieved by the individual Institutions and States.
- Mid-Term Review Mission: A Mid-Term Review under the 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.
 - Bi-annual 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.

5. Mentoring:

Mentoring is a strengthening mechanism by the third party at the institutional level. Mentors provide the institutions with clear guidance on reforms, implementations plans, and remedial actions to improve performance of the institutions. Mentors will be assigned to all project institutions to provide continuous guidance for Project implementation 2 to 3 times in a year based on institutional requirements. All expenses for mentoring will be met by the mentored institution. The Mentors will also act as the Performance Auditors at different Institutions²⁹ and assess the progress made by individual Institutions. *Kindly refer "Handbook for Mentors and Performance Auditors".*

²⁹ Other than the Mentoring Institutions.

Section-4

SELECTION PROCESS

4.1 Introduction:

The Project will support around 200 competitively selected engineering institutions amongst eligible Government funded, Government aided and private unaided Engineering Institutions from the selected States and Centrally Funded Institutions through two sub-components i.e. Sub-component 1.1 (Strengthening institutions to improve learning outcomes and employability of graduates) and Sub-component 1.2 (Scaling-up post graduate education and demand driven research and development and innovation).

Institutions can apply only for one of the two Sub-components—either for 1.1 or 1.2.

Than main steps for the selection of institutions are:

- a) Selection of States through a review of State proposals.
- b) Evaluation of Institutional Eligibility Proposals from institutions.
- c) Evaluation and selection of Institutional Development Proposals from institutions.
- d) Signing of MoUs with States and Institutions.

The selection of around 200 institutions will take place in two rounds. The two rounds will phase the intensive evaluation and implementation start-up phase. Further, the two rounds will give time to institutions and States to improve the quality and potential impact of proposals. In each round, the technical evaluation, scoring and feedback of institutional proposals will be undertaken by experts in technical education to ensure a merit based, transparent and objective evaluation.

4.2 Selection of States:

A set of eligibility criteria for states will be enforced to achieve a high end sustained impact of the TEQIP. The criteria will seek to enhance reforms in the system and give TEQIP institutions an enabling policy framework, with adequate decision power and incentives, which will enable and encourage them to deliver quality education and research in an effective and efficient manner. A primary focus is to shift the traditional role of input-control towards a role of leading change, focusing on outcomes and incentivizing improvement in the institutions.

4.2.1 Eligibility Criteria for Selection of States and Union Territories:

The States and Union Territories will be selected based on merit of their proposals and on meeting the following Eligibility Criteria:

- 1. Autonomous Institution Status:** The Institutions selected to participate in Sub-component 1.1 have to obtain Autonomous Institution Status as per UGC norms to enable them to improve quality and relevance of the knowledge and skills of their graduates through betterment in curricula and assessment methods. The States need to issue orders to such project institutions to seek and obtain autonomous institution status as per UGC norms and procedures (refer Annex-II) before signing of an MoU with MHRD [refer Annex-III (a)].
- 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 to incentivize the Institution to increase its internally generated revenue, and to 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 Government funded and Government 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 Government funded and Government aided 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 Government funded and Government aided project institutions to establish four funds (as elaborated 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). The States in this regard need to:
- Direct project institutions to build these funds with annual contribution into each Fund equal to at least 0.5% of annual recurring expenditure of the Institution, and direct each project institution to also additionally contribute from savings into the Corpus Fund;
 - Issue guidelines for proper management of the four Funds after closure of this Project.
- 3. Filling-up the faculty vacancies:** The benchmark value for the faculty positions on regular full time basis for Institutions under Sub-components 1.1 and 1.2 are mentioned in Tables-6 and 8 respectively. The States need to authorize each project institution to fill-up all faculty vacancies through 11-month or longer contracts till such time that these vacancies are filled-up on a regular basis.
- 4. Establishment of SPFU:** Establish an SPFU, located in the Department of the State Government responsible for Technical Education. The head of the SPFU will 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 State Project Coordinator (SPC) who will be an academician. Each State should be willing to take a decision not to transfer / change the SPFU officials for the duration of the Project.
- Note:** Release of the first instalment of Central Share of Project funds to a State for its Institutions and SPFU will be subject to signing of MoU with MHRD and MoUs with the institutions by the State and receipt by the NPIU of the necessary documentation from the selected States in respect of compliance with the Eligibility Criteria 1-4.
- 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-5 and Annex-II and ensure that the BoG meets 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 project institutions to implement both academic and non-academic reforms prescribed for implementation. (refer Annex-I)
- 7. Organizing Pedagogical Training:** Each State has to ensure that each project institution gets imparted Pedagogical Training to faculty members.

4.2.2 State Selection Process:

The steps for the selection of States are as follow:

- (a) 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 provide the following:
- Evidence that the State's participation in the Project is linked to its policy objectives for Technical Education.

- Evidence that the State has identified, understood and discussed with key stakeholders (State Finance Department) the main steps and challenges for implementation of the required reforms.
 - Evidence that the State has a plan to sustain the gains of the Project after it has been closed.
- (b) Receipt of State Proposals by the NPIU.
- (c) 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-5.
- (d) Feedback of NEC observations to the States for improvements in the Proposal, if any required.
- (e) Consideration of new and improved State Proposals.
- (f) Review and validation of NEC's reports on State Proposals and its recommendations for State selection by the National Steering Committee (NSC).
- (g) Announcement of selection of States by NSC through the NPIU.

Table-5
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 Sub-component 1.1) and establishing a Board of Governors
(iii)	Capacity and plan to implement the Enabling Financing Framework in consultation with the State Finance Department
(iv)	Plan and feasibility for sustaining the gains from the Project after Project closure

Note: The scheme for proposal evaluation is given in Annex-X [Table-45].

4.3 Selection of Institutions under Sub-component 1.1 (Strengthening Institutions to Improve Learning Outcomes and Employability of Graduates):

The institutions will be selected on fulfilment of eligibility criteria as given in Table-6 and on the merit of the Institutional Development Proposals (IDPs).

Solely for equity purposes, Institutions from the new States lagging in Technical Education and Special Category States shall be considered eligible to submit IDP, subject to the conditions that the Institutions: (i) **are at least four years old, and** (ii) **show commitment to meet all the Eligibility Criteria as prescribed for institutions from regular States during the Project period and to achieve all institutional targets (Table-30).**

Note : *New States lagging in Technical Education are objectively defined for this project as those that either have only one Engineering Institution or less than one Engineering Institution per million population as per AICTE's approved list of Engineering Degree Institutions in 2004 and have not participated in TEQIP-I. These States are namely: Andaman & Nicobar Islands, Arunachal Pradesh, Assam, Bihar, Chhattisgarh, Jammu & Kashmir, Meghalaya, Manipur, Mizoram, Rajasthan, Sikkim and Tripura.*

4.3.1 Eligibility Criteria for Sub-component 1.1:

Institutions to be eligible for participation in the Project under the Sub-component 1.1 must meet the following benchmarks:

Table-6[#]
Eligibility Criteria for Sub-component 1.1

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

* Minimum 40% regular faculty of the sanctioned strength and minimum overall faculty strength of 50% including faculty on eleven months or longer duration contract.

These institutions will essentially have to have a minimum of 50% regular faculty as per the AICTE prescribed faculty student ratio (for NITs and other CFIs, MHRD norms will apply) within one year of signing of MoU, failing which project funding will be stopped.

** Faculty strength as per AICTE approved norms out of which at least 50% should be appointed on regular basis.

*** Please refer Annex-II.

4.3.2 Scrutiny of Institutional Eligibility Proposals:

The Institutions are required to prepare the Institutional Eligibility Proposals (IEPs) in the prescribed formats [Annex-IV-(B)(a)(i)]. A scrutiny will be done for meeting the Eligibility Parameters (refer Table-6). The steps leading to Scrutiny of Institutional Eligibility Proposals (IEPs) and call for submission of Institutional Development Proposals (IDPs) are as follow:

- (a) Advertisement will be issued in newspapers by the NPIU followed by State advertisement inviting Institutional Eligibility Proposals from eligible Institutions in the prescribed format.
- (b) Only those Institutions that meet the minimum benchmarks for Eligibility Criteria should prepare and submit Institutional Eligibility Proposals to the State Department responsible for Technical Education (in most cases States Directorate for Technical Education, DTE).
- (c) Institutional Eligibility Proposals will be scrutinized for eligibility by the concerned Directorate and approved by the State Steering Committee (SSC).

[#] Updated as per 3rd and 4th NSC Meeting decision.

- (d) States forward the endorsed Institutional Eligibility Proposals to the NPIU. **States should forward only those proposals which meet all the eligibility criteria and for which State government is willing to co-sponsor.**
- (e) New CFIs will submit the Institutional Eligibility Proposals directly to the NPIU.
- (f) The NPIU will scrutinize the Institutional Eligibility Proposals as received from States, UTs and new CFIs for eligibility and completeness.
- (g) NSC will approve the list of eligible Institutions for invitation to submit the IDPs.
- (h) The NPIU will forward the list of the eligible Institutions to States and CFIs for invitation of IDPs. Results of scrutiny will be hosted on the NPIU website.

4.3.3 Evaluation of Institutional Development Proposals under Sub-component 1.1:

The Institutions found eligible will be invited for submission of Institutional Development Proposals (IDPs).

The IDPs will be invited and evaluated in the following manner:

- (a) States invite IDPs from the eligible Institutions
- (b) States screen IDPs for completeness and shortlist the Institutions
- (c) States forward short listed IDPs to the NPIU
- (d) Eligible CFIs submit their IDPs directly to the NPIU
- (e) The NPIU screens the IDPs received by a cut-off date for completeness (only the proposals found complete will be placed before the NEC)
- (f) Evaluation and ranking of IDPs by the NEC
- (g) Review and validation of the NEC's report on IDPs and its recommendations for selection and fund allocation by the National Steering Committee (NSC)
- (h) Declaration of selected Institutions to States. The selection of certain Government funded and Government aided Institutions may be subject to a few mandatory improvements being made in their IDP
- (i) Declaration of selected CFIs after signing of Memorandum of Understanding [refer Annex-III (b)]

Table-7[#]

Evaluation Scheme for Institutional Development Proposal under Sub-component 1.1

S. No	Evaluation Parameters	Marks
I	Institutional Preparedness and Implementation Feasibility	
	• Clarity of Institutional basic information including baseline data	5
	• Quality of SWOT analysis	10
	• Overall implementation feasibility of Institutional project	15
	• Coherence of proposal with State's/Regional Development Plan	5
	Sub-Total (I)	35
II	Clarity and Quality of the Action Plans for :	
	• Implementation of reforms	15
	• Improving learning outcomes of students in terms of higher pass rates and higher academic achievements	10
	• Identification of weak students and for improvement in their learning outcomes through finishing school	5
	• Improving employability of graduates	5
	• Strengthening of existing PG programmes and starting new PG programmes	5
	• Faculty development including pedagogical training	10
	• Enhanced interaction with Industry	5
	Sub-Total (II)	55
III	Faculty Qualification and Status	
	• Quality of faculty	5
	• Status of faculty	5
	Sub-Total (III)	10
	Total (I+II+III)	100

Note : The full scheme for IDP evaluation is given in Annex-X [Table-47].

[#] Updated as per 4th NSC Meeting decision.

4.4 Selection of Institutions under Sub-component 1.2 (Scaling-up Postgraduate Education and Demand-Driven Research & Development and Innovations):

State sponsored (Government funded, Government aided and Private unaided) 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). Similarly Centrally Funded Institutions (CFIs) will also be selected meeting the eligibility criteria and based upon the merit of their IDPs.

4.4.1 Eligibility Criteria for Sub-component 1.2:

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

Table-8[#]
Eligibility Criteria for Sub-component 1.2

S. No	Eligibility Parameters	Benchmark values
1.	Agreement to implement all academic and non-academic reforms given as below: <ul style="list-style-type: none"> • Curricular Reforms • Exercise of autonomies • Establishment of Corpus Fund, Faculty Development Fund, Equipment Replacement Fund and Maintenance Fund • Generation, retention and utilization of revenue generated through variety of activities • Institutions to fill-up all existing teaching and staff vacancies • Delegation of decision making powers to senior functionaries with accountability • Improved student performance evaluation • Performance appraisal of faculty by students • Faculty incentive for Continuing Education (CE), consultancy and R&D • Accreditation of UG and PG programmes 	Yes
2.	Autonomous Institution Status by UGC	Yes*
3.	Presence of Board of Governors with an eminent educationist or Industrialist as the Chairperson	Yes**
4.	Percentage of eligible UG programmes accredited plus applied for	60%
5.	Percentage of eligible PG programmes accredited plus applied for	40%
6.	Cumulative number of PhDs produced in the last three academic years (2007-08, 2008-09 and 2009-10) or Cumulative number of MTech produced in the last three academic years (2007-08, 2008-09 and 2009-10)	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 for a) Government funded and Government aided institutions b) Private unaided institutions	*** ****
8.	Percentage of regular faculty with PhD in Engineering a. Regular States: Minimum 15% of faculty with PhD in Engineering against total available faculty for Engineering disciplines only. b. Special Category States: Minimum 15% of faculty in Engineering and Basic Sciences with PhD against the total available faculty for Engineering disciplines and Basic Sciences.	15%

* Institutions that have already applied for induction as Autonomous Institution status can also apply. However the selection of such institutions and consequent signing of MoU will be subject to the Institution having actually obtained Autonomous Institution status from the UGC.

** Please refer Annex-II

*** Minimum 55% regular faculty of the sanctioned strength and a minimum overall faculty strength of 65% including faculty on eleven months or longer duration contract. These institutions will essentially have to have a minimum of 65% regular faculty as per the AICTE prescribed faculty student ratio (for NITs and other CFIs, MHRD norms will apply) within one year of signing of MoU, failing which project funding will be stopped.

**** The Private unaided institutions should have faculty strength as per AICTE approved norms out of which at least 65% should be appointed on regular basis.

Note : In respect of accreditation benchmarks for Undergraduate and Postgraduate programmes in Universities, Deemed Universities, University Constituent Colleges/Faculties/Departments, NAAC accreditation is acceptable at the entry point. However, all such project entities will have to essentially achieve the Undergraduate and Postgraduate programmes targets of **NBA accreditation** as given in Table-35 for Sub-component 1.2.

[#] Updated as per 3rd and 4th NSC Meeting decision.

4.4.2 Evaluation of Institutional Development Proposals under Sub-component 1.2:

Institutions meeting the Eligibility Criteria will be invited for submission of Institutional Development Proposals (IDPs).

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

- (a) 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)]
- (b) States screen IDPs for completeness and shortlist the Institutions
- (c) States forward short listed IDPs to the NPIU. **States should forward only those proposals for which meet all the eligibility criteria and for which State government is willing to co-sponsor**
- (d) The NPIU screens the received IDPs for completeness (only complete Proposals will be evaluated)
- (e) Evaluation and ranking of IDPs by the NEC (Evaluation Scheme is given in Table-9)
- (f) Review and validation of the NEC’s report on IDPs and its recommendations for selection and fund allocation by the National Steering Committee
- (g) Declaration of selected Institutions to States. The selection of certain Government funded and Government aided Institutions may be subject to a few mandatory improvements to be made in their IDPs
- (h) Declaration of selected CFIs after signing of Memorandum of Understanding (refer Annex–III (b))

Table-9
Evaluation Scheme for Institutional Development Proposal under Sub-component 1.2

S. No	Evaluation Parameters	Marks
I	Institutional Preparedness and Implementation Feasibility	
	• Clarity of institutional basic information including baseline data	5
	• Overall proposal implementation feasibility	15
	• Quality of SWOT analysis	10
	• Coherence of proposal with State’s/regional development plan	5
	• Reasonability of proposed budget	5
	Sub-total (I)	40
II	Clarity and Quality of the Action Plans for :	
	• Scaling-up research and innovation	10
	• Scaling-up PhD enrolment through existing and new programmes	10
	• Scaling-up enrolment into Masters programmes in existing and new programmes	10
	• Research collaborative activities with Institutions at National and International levels	10
	• Potential impact and depth of proposed Industry collaboration	5
	• Faculty development including pedagogical training	10
	• Identification of weak students and for improvement in their learning outcomes through Finishing School	5
	Sub-total (II)	60
	Total (I + II)	100

Note : The scheme for proposal evaluation is given in Annex-X [Table-48].

4.5 Selection of Institutions under Sub-component 1.2.1 (Establishing Centres of Excellence):

4.5.1 Pre-Screening of Institutions: Only the Institutions, which have already been selected under Sub-component 1.2, can on invitation submit proposals for establishing a Centre of Excellence (CoE).

4.5.2 Eligibility Criteria for Sub-component 1.2.1:

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

Table-10
Eligibility Criteria for Sub-component 1.2.1

S. No.	Eligibility Parameters	Benchmark values
1	Autonomous Institution Status by UGC	Yes
2	Percentage of eligible UG programmes in the institution accredited or applied for	75%
3	Percentage of eligible PG programmes in the institution accredited or applied for	60%
4	Percentage of regular faculty with PhD in Engineering as percentage of total faculty available in Engineering in the institution	20*
5	Number of sponsored research projects completed in the institution in the last three academic years (2009-10, 2010-11, 2011-12)	07
6	Cumulative number of PhDs produced in the last three academic years (2009-10, 2010-11, 2011-12) in the Departments participating for establishing CoEs	12**
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 in the Departments participating for establishing CoEs	70%

* Institutions having 50% of regular faculty with PhD in Engineering of the total regular faculty in Engineering; out of which 75% in the proposed theme area will be given weightage.

** Institutions having produced 25 Nos. of PhDs in last three academic year will be given weightage.

Note 1 : The benchmarks prescribed for Sub-component 1.2 are deemed to have been met by the applicant Institutions.

Note 2 : Minimum number of participating faculty in the centre – 4.

Note 3 : In respect of accreditation benchmarks for Undergraduate and Postgraduate programmes in Universities, Deemed Universities, University Constituent Colleges/Faculties/Departments, NAAC accreditation is acceptable at the entry point. However, all such project entities will have to essentially achieve the Undergraduate and Postgraduate programme targets of **NBA accreditation** as given in Table-35 of PIP for Sub-component 1.2.

4.5.3 Evaluation of Institutional Development Proposals under Sub-component 1.2.1[#]:

A two-stage evaluation process will be implemented. The steps for evaluation of these proposals are:

Invitation and Pre-screening of Institutions by NPIU:

- Invitation by e-mail to the Institutions selected under Sub-component 1.2 to submit proposals to the NPIU for establishing Centres of Excellence in the prescribed format [Format given in Annex-IV-(B)(c)].
- NPIU screens the received proposals for completeness and for eligibility criteria.
- Incomplete proposals and/or proposals that do not meet the criteria will not be evaluated.

Evaluation of Proposals based on Implementation Feasibility and Action Plans:

- A rigorous technical appraisal and ranking of the proposals meeting the eligibility benchmarks by domain experts from IITs/IISc as per the evaluation scheme given in Table-11 taking into account the comments and recommendations of the experts.
- NPIU will send the recommendations of the experts to the National Steering Committee (NSC).
- Selection of Institutions by the National Steering Committee (NSC) along with fund allocation.
- Declaration of selected Institutions.

[#] Updated as per discussion with Stakeholders.

Table-11
Evaluation Scheme for Institutional Development Proposal under Sub-component 1.2.1

S. No.	CATEGORIES	MARKS
1	Implementation Feasibility	
	• Overall proposal implementation feasibility	10
	• Institutional preparedness	35
	• Reasonability of proposed budget	5
	Sub – total (a)	50
2	Clarity and Quality of Action Plans for :	
	• establishment of CoE in terms of physical arrangements and working arrangements	10
	• conducting research and obtaining results in the identified thematic areas	10
	• communication of research findings to policy makers and potential users	5
	• commercialization of research results	5
	• scaling-up PhD and Masters enrolment in thematic areas	10
	• insuring sustenance of CoE after the end of the project	10
	Sub – total (b)	50 Marks
	Total	100 Marks

Note : The scheme for proposal evaluation is given in Annex-X [Table-49].

Section-5 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.72) and described subsequently.

5.1.1 National Level Implementation Arrangements:

The composition and functions of the three bodies, namely the National Steering Committee (NSC), the National Project Directorate (NPD) 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):

(i) 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 nominee,
- Secretary, Department of Science & Technology or nominee,
- Financial Advisor to MHRD,
- Chairperson of the AICTE or the NBA,
- Four Chairpersons of State Steering Committees (SSCs), nominated by the NSC Chairperson, in annual rotation,
- Three members nominated by MHRD, who must be persons with recognized expertise and interest in Higher Technical Education, in annual rotation,
- One representative from the CIHEC.
- Two Industry representatives, nominated one each by the Confederation of Indian Industry (CII) and the Federation of Indian Chambers of Commerce & Industry (FICCI), and
- The National Project Director (NPD) in the MHRD, as the Member-Secretary.

(ii) 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 operational costs of the NSC will be financed by the Project through the NPIU's budget.

(iii) Functions:

The NSC, besides providing guidance and directions 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 allocations under the two components: (i) Improving Quality of Education in Selected Institutions, and (ii) Improving System Management. It will ensure fairness and transparency in the selection process for Institutions.
- Recommend corrective actions with regard to the non-performing States, UTs and Institutions including CFIs.
- Allocate funds to the NPIU and the SPFUs.
- Review findings from policy reform, thematic and evaluation studies.

(iv) 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):

(i) Composition:

The National Project Directorate will constitute a National Evaluation Committee (NEC) 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 80-100 experts to serve on the National Evaluation Committee. Specific Evaluation Committees will also be formed by the NPD from the approved panel for selection of States; selection of Institutions under Sub-component 1.1, Sub-component 1.2 and Sub-component 1.2.1 and for selection of proposals for grants under the Innovation Fund. The committee for selection of Institutions for establishing Centres of Excellence will be composed of subject experts only.

(i) Meetings:

The National Evaluation Committees (NECs) will meet on need basis after receipt of Eligibility and Development Proposals of Institutions and proposals for grants under Innovation Fund. It will be assisted in its functioning by the National Project Implementation Unit (NPIU).

(ii) Functions:

The National Evaluation Committees will carry out the following functions:

- Evaluation of proposals for selection of States,
- Evaluation of Eligibility and Institutional Development Proposals based on State's recommendations under Sub-component 1.1 and evaluation of Institutional Development Proposals 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, and
- Evaluation of proposals from institutions for establishing Centres of Excellence under Sub-component 1.2.1 and Evaluation of proposals for Innovation Fund.

5.1.1.3 National Project Directorate:

The National Project Directorate will be located within the Department of Higher Education in the MHRD and will be headed by a National Project Director (NPD). The National Project Director (NPD) will be nominated by the MHRD in the rank of a Special Secretary/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 will be headed by the NPD and assisted by a Director in the Department of Higher Education, MHRD dealing with the Project with adequate infrastructure, key and support staff including a Finance Specialist, a Project Management Specialist etc. 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 under Sub-components 1.1, 1.2 and 1.2.1 and also proposals for Innovation Fund,
- Overall Project fund management including Central fund releases, monitoring matching fund releases by the States and UTs, and monitoring overall utilization of Project funds,
- Ensuring timely release of funds to States, UTs and CFIs and other recipients as per approved annual allocations,
- Coordinating with project States and UTs, concerned Ministries/Departments of GoI and the World Bank,
- Overseeing Project implementation at the National and State levels,
- Periodic review of the project,

- Facilitating holding of six-monthly Joint Review Missions (JRMs), 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 will be headed by the Central Project Advisor (CPA):

- Institutional Development Unit
- PG Education and R&D&I 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&I 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 and MHRD, fee to Consultants, salaries of contractual support staff, expenditure on rent and refurbishment of hired offices, goods, minor works, assessment, surveys, institutional audits, studies, reviews, mentoring, study tours and various training workshops, travel, staff welfare and other operating costs of the NPIU and MHRD.

(i) **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 evaluations,
- 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 Institutional Development Proposals (IDPs) from Institutions for Sub-components 1.1 and 1.2 and proposals for Sub-component 1.2.1,
- Organizing receipt, processing and evaluation of Proposals for Innovation Fund, communicating recommendations for improvement of proposals as suggested by NEC , if any, and obtaining approval for funding from the NSC,
- Arranging training for the 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 and UTs and Institutions for implementation of Equity Assurance Plan (EAP), Environment Management Framework (EMF) and Disclosure Management Framework (DMF) requirements,
- Liaising with the SPFUs to discuss Project implementation progress to identify and solve emerging problems,

- Organizing Professional Development Programmes for Engineering Education policy planners, administrators and implementers (from the MHRD, the State Directorates, the NPIU, the SPFUs, etc.),
- Organizing Joint Review Missions, Mid-term and Implementation Completion 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.

(ii) Role of the NPIU's Functional Units:

(a) Institutional Development Unit in the NPIU: Under the guidance of the CPA, this Unit will:

- Organize training workshops and technical assistance for the SPFUs of new States on preparation of eligibility proposals and IDPs, based on SWOT analysis, for seeking funds under Sub-component-1.1,
- Scrutinize Eligibility of the short listed proposals for this Sub-component as received from States and UTs for completeness, validation of State/UT recommendations, eligibility parameters, and prepare reports on the same for consideration of the NSC,
- Scrutiny followed by evaluation of Institutional Development Proposals for Sub-component 1.1 of all short listed Institutions (for those that have State sponsorship) through 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 for capacity building of BoGs and develop appropriate orientation programme and identify resource persons in consultation with the SPFUs,
- Identify a set of mentors for CFIs,
- Approve (based on their experience and capability) mentors for State sponsored institutions,
- Empanel performance and data auditors for all project institutions,
- Develop clear TORs, guidelines and methodologies for mentors and, performance and data auditors,
- 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 institutions³⁰, and
- Obtain reports from mentors and auditors; review these for satisfactory progress in implementation of the proposed activities and achievement of targets.

(b) PG Education and R&D&I Unit in the NPIU: Under the guidance of the CPA, this Unit, in respect of Proposals for Scaling-up PG Education and Research & Development and Innovation under sub-component 1.2 will:

- Scrutinize proposals of the short listed proposals for this Sub-component as received from States and UTs for completeness and validation of State/UT recommendations, and prepare reports on the same for consideration of evaluation by NEC,
- Organize meetings of the NEC for in-depth review of the IDPs 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 the Sub-component 1.2.

³⁰ Project Institutions are those Institutions that have been selected to participate in this Project, and continue to participate.

In respect of Proposals for Establishing Centres of Excellence under Sub-component 1.2.1, the unit will:

- Scrutinize Proposals for this Sub-component as received from States and UTs for completeness and prepare reports on the same for consideration of the NEC,
- Based on the recommendations of the NEC, refer proposals for Centres of Excellence to Indian and Foreign experts and industry 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 Centres of Excellence, and facilitate carrying out of viability assessment by visiting Committees, as approved by the NPD, and submit the findings to the NEC, and
- Collate NEC recommendations and the Viability Assessment Reports for consideration of the NSC for final selection.

In addition to above, the Unit will:

- Develop and oversee procedures for effective mentoring and performance audits of Institutions participating in these two Sub-components,
- 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.

(c) 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 Training Needs Analysis (TNA), and publish the information on the NPIU's website,
- Promote conduct of TNA in all project institutions,
- Compile a training calendar for good quality opportunities in subject knowledge enhancement, publish the calendar on the NPIU's website and periodically update the calendar,
- Periodically follow-up with the SPFUs to encourage project institutions (including unaided Institutions) to take advantage of the opportunity made available under the Project for subsidized Pedagogy Training,
- Monitor achievements in all types of training in 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,
- Organize foreign study tours of officials of the MHRD, the NPIU, the SPFUs, the CFIs etc. for building capacity for academic and governance reforms,
- Coordinating the activities with IITs and IIMs for faculty training.

(d) Monitoring and Evaluation (M&E) 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 M&E specialists in the SPFUs and the project institutions through providing advice and operating as a clearing house for issues (problems and solutions) raised by States, UTs and Institutions,
- Monitor status of KPIs and achievements of Finishing Schools,

- Incorporate data on the performance of Institutions into the MIS,
 - Develop procedures for regular monitoring of performance of project institutions,
 - Conduct/commission surveys, audits and studies envisaged under Sub-component 2.2, and
 - Publish on its website results of all National level selections and such other information as required under Disclosure Management Framework.
- (e) 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 and use of PMSS,
 - Build capacity of procurement officers in the SPFUs and the project 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 thereafter repeating the workshops every six months,
 - Guide the SPFUs and the 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 the SPFUs for carrying out procurement audits at the State level, and
 - Act as a support and reference person for all Project-related procurement tasks.
- (f) Financial Management Unit in the NPIU: Under the guidance of the CPA, this Unit will:
- Ensure full knowledge and systematic application of the Project procedures and requirements for financial management,
 - Providing guidelines for financial, accounting, reporting and audit aspects through facilitating preparation of Financial Management Manual,
 - Guide/monitor and provide support on adherence to fiduciary guidelines and financial management arrangements by working in close coordination with the World Bank/MHRD/CAAA,
 - Provide support to the Financial Management/accounting staff for issues related to Financial Management aspects of the Project,
 - Prepare annual estimates and budget for the Project and play an important role in release of funds,
 - Facilitate implementation of the Project and provide advisory services and support for financial management and other allied issues,
 - Monitor/Consolidate and Review Quarterly/Six-Monthly/Annual Reports of the participating States and CFIs,
 - Prepare consolidated Project Financial Monitoring Reports (FMRs) and ensure timely submission of FMRs to the World Bank/CAAA,
 - Coordinate receipt of annual audit reports from the States/the UTs/the CFIs and other recipients and audit of the 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 the States, UTs, CFIs and other recipients; and coordinate timely response from all concerned on audit observations,
 - Prepare and implement a plan for capacity building in financial management of the FM staff in the SPFUs and the project institutions and review the capacity building requirements of FM staff at all levels on a regular basis,

- Guide the Finance Officers in the SPFUs through advice and operate 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,
- Impart comprehensive and topic specific training to project staff at various levels on Financial Management and manage those training programmes through preparation of training plan, including schedule of trainings/workshops/ seminars/orientation and monitoring and implementation of the same,
- Participate in reviews and monitoring of States and CFIs,
- Monitor disclosure of FM information, and
- Carry out revision of Financial Management Manual as may be required.

5.1.2 State Level Project Implementation Arrangements:

The project States and the UTs³¹ 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 levels.

5.1.2.1 State Steering Committee (SSC):

(i) Composition:

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

- Principal Secretary/Secretary responsible for Engineering Education, as the Chairperson;
- Financial Controller of the State Department concerned with Engineering Education in the State/UT or his/her nominee;
- Director or equivalent, Department of Higher Education, MHRD or 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)³²; and
- Director for Engineering Education in the State (being the head of the SPFU), as the Member-Secretary.

(ii) 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.

(iii) 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 and the SPFU proposals for financing under the Project; (d) overseeing operational activities within the State; (e) preparing State proposals, and forwarding these and also proposals from other entities for seeking grants under the Innovation Fund; (f) reviewing and approving foreign training and foreign study tours; and (g) taking stock of the Project and facilitating Project implementation under all Components and Sub-components as per the proposals approved for funding by the NSC.

³¹ Project States / UTs are those States and UTs that have been selected to participate in the Project, and continue to participate.

³² 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.

5.1.2.2 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.

The SPFUs will be located within the Department of the State Government responsible for Technical Education. The head of the 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 State Project Coordinator (SPC) who will be an academician.

(i) Role of State Project Advisor (SPA): The SPA will perform with the functional assistance from the SPC, the following functions:

- Disseminating to institutions, through its website, information on the Project design, eligibility and selection criteria for Institutions and the associated processes,
- Preparing Annual Budgets and detailed semi-Annual Plans and Budget,
- Organizing receipt of separate eligibility and Institutional Development Proposals (IDPs) from Institutions for Sub-components 1.1 and 1.2 and proposals of Sub-component 1.2.1,
- Organizing preparations of proposals for Innovation Fund,
- Developing proposals for local technical assistance to institutions,
- According final approval to the Institution's Procurement Plan on recommendations of SPC and Procurement unit of the SPFU,
- Organizing meetings of mentors and experts,
- Building capacity of Institutions for implementation of Equity Assurance Plan (EAP), Environment Management Framework (EMF) and Disclosure Management Framework (DMF) requirements,
- Liaising with the NPIU to discuss project implementation progress to identify and solve emerging problems,
- Facilitating 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 NPIU.

(iii) Role of functional Units in the SPFU: The SPFU will have 4 Units, namely Academic Unit, Procurement Unit, Financial Management Unit, and Monitoring and 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 4 units are described below:

a) 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 Institutional Development Proposals (IDPs) for Sub-component 1.1, IDPs for Sub-component 1.2 and for Establishment of Centres of Excellence,
- Review Eligibility Proposals from Institutions, and prepare 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,
- Forward all eligible proposals received 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 achieve their Developmental Goals and to also provide avenues for professional development of individual faculty members,

- 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 Faculty and Staff Development Plans,
 - Initiate and promote preparation of proposals for funding under the Innovation Fund,
 - Identify Mentors and Performance Auditors for the project institutions,
 - Carry out orientation of BoGs at the respective Institutions and disseminate good governance practices,
 - Organize workshops for sharing good academic practices and innovations with other SPFUs and project institutions, and
 - Oversee mentoring, performance and technical audits of project institutions, obtain and review the reports and share these reports with the SSC and the NPIU.
 - Organize Pedagogical Trainings
 - The SPFUs can facilitate Pedagogical Training in the State sponsored institutions. The SPFUs shall follow the following steps, if pedagogical trainings are arranged.
 - Compile a list of project 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.
 - The SPFU would select training providers for individual or cluster of institutions by following the World Bank Consultant procurement 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, the SPFU and the NPIU.
 - The SPFU will monitor progress and effectiveness of training, review faculty feed back and end-of-course assessment reports for their institutions.
- b) 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 and use of PMSS 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,
 - Verify the justification of procurement of items and its link with objectives and the listed activities of the project,
 - Recommend the procurement plan of each institution for find approval to the State Project Advisor (SPA) through the State Project Coordinator (SPC) after thorough scrutiny of the plan for ascertaining full compliance with the World Bank laid procedures of procurement and complete requirement of PMSS,
 - 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 Civil Works Manual) for all civil works in Institutions,

- Act as a support and reference unit to Institutions for all Project-related procurement tasks, and
 - Submit quarterly procurement progress reports to the SSC.
- c) Financial Management Unit: Under the direct guidance of the SPA, this Unit will:
- Provide guidance on financial, accounting and reporting aspects to the project institutions at the State level,
 - Ensure full knowledge and systematic application of the Project procedures and requirements for financial Management,
 - Prepare budget for project at State level and arrange timely flow of funds to institutions,
 - Accept Quarterly Financial Monitoring Reports (FMRs) from the participating institutions and guide/monitor and provide support for adherence to the fiduciary guidelines, financial management issues,
 - Consolidate FMRs for the project and submission to the NPIU, so as to facilitate disbursement of funds within the required timeframe,
 - Hire Internal and External Auditors,
 - Monitor quality of audit arrangements in all agencies in the State which will be funded under the project. Regularly monitor compliance of audit observations by institutions,
 - Timely submit consolidated Audit Report of Project Institutions and the SPFU to the NPIU,
 - Provide support to Financial Management/accounting staff of institutions for resolving various issues related with accounting/Financial Management aspects, reporting system etc. Facilitate implementation of the project and providing advisory services and support for financial management and other allied issues,
 - Impart comprehensive and topic specific training to project staff at various levels on Financial Management and manage these training programmes through preparation of training plan, including schedule of trainings/workshops/seminars/orientation, and monitor implementation of the plan in close co-ordination with the NPIU, and
 - Other project aspects related to financial management,
- d) Monitoring and Evaluation Unit: Under the guidance of the SPA, this Unit will:
- Facilitate MIS training of personnel from all project institutions,
 - Ensure periodical updation of the MIS data 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 project institutions,
 - 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 (BoG):

(i) Composition:

- Each Institution will necessarily have its own BoG, (please see eligibility conditions) 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 (see Annex-II), and
- The BoG will, in all cases, be headed by an eminent Industrialist/Engineering Education expert with adequate representation from other stakeholders.

(ii) 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.

(iii) Functions:

- Take all policy decisions with regard to smooth, cost effective and timely implementation of the Institutional 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),
- Monitor progress in the carrying out of all the proposed activities, resolve bottlenecks, and enable the Institution to achieve targets for all key indicators,
- Timely initiation and completion of external and internal audits; and
- Satisfactory compliance / resolution of external and internal auditors observations.

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 called as **Institutional Project Director (IPD)**, will be responsible for implementation of the Institutional project. He/she is to be assisted by a Senior Professor called as **Institutional Project Coordinator(IPC)** for coordinating the activities of the institutional project.

The Institutional TEQIP Unit will operate through committees for procurement of Goods, Works and Services; financial management; implementation of faculty and staff 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 expects to maximize collaboration between local Industries and project institutions by providing the National Steering Committee and the State Steering Committees (through CIHEC and S-PSAG) 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 curricula,
- 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 Council of Industry-Higher Education Collaboration (CIHEC):

To identify initiatives to promote research, mobilize resources, develop market-ready manpower and enhance employability CIHEC has been operationalize. The Council will collaborate with placement cells of Central Universities for identification of the emerging areas as per requirement of neighbouring industries to make students employment ready. The CIHEC will also help train counsellors at all placement cells for better counselling and placements. Central universities have been asked to establish a placement cell for all disciplines. Every placement cell will have counsellors who should give in-house training for skill development and coordinate placements

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

- a) State Governments are expected 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 of States and establish S-PSAG at one State. The State-level Advisory Groups will equally be represented in the State Steering Committee.
- b) 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.
- c) Each S-PSAG will set up a mechanism to identify issues and difficulties at an early stage that potentially obstruct/restrict promotion of the partnerships and slow down implementation of the related project activities.
- d) 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.

5.2.3 Funding for the Advisory Groups:

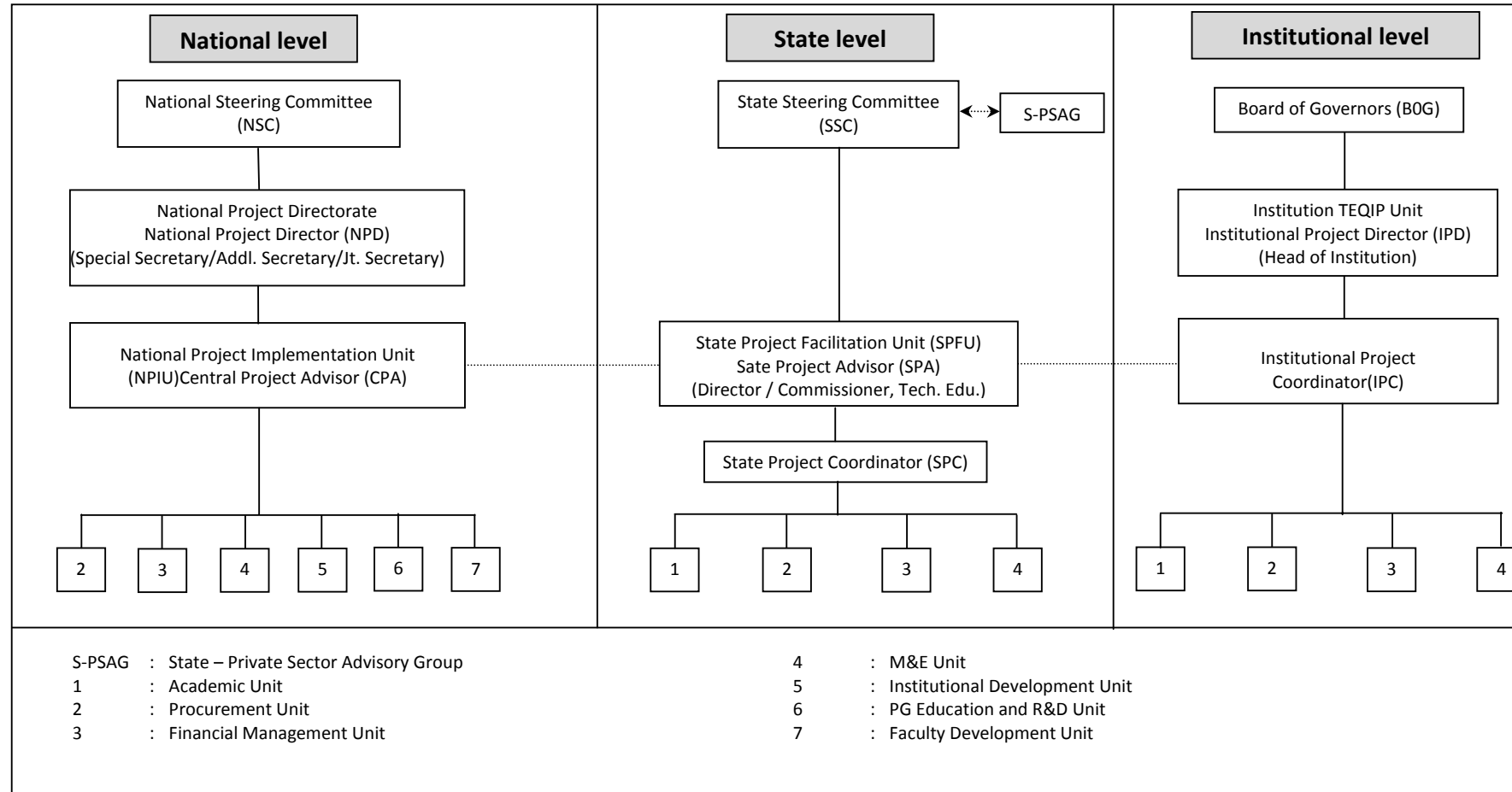
In order to support the Private Sector Advisory Groups at the National and State levels, limited but reasonable funds can be made available through the NPIU to support activities of the CIHEC and through the SPFUs to support activities of S-PSAG. The funds could be used for:

- a) Members' travel to attend the meetings held by the Advisory Groups, in accordance with the Government rules,
- b) Recurrent costs for meetings, and
- c) Other relevant costs as agreed to by the NSC, but members' time in Advisory Groups will not be paid for.

5.3 Role of the World Bank during Project Implementation:

For effective Project implementation, the World Bank will have frequent interactions with Central and State Governments, and Institutions. The World Bank will participate in Review Missions and also visit NPIU, various States and institutions to provide implementation support and guidance for their project activities.

Chart – I
Implementation arrangements at National, State and Institution Levels



Section-6

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 and the States and UTs in the manner of matching shares, in the ratio of 75:25 for the general category states and 90:10 for the special category States. The Central share will be Rs.1981.00 crore (World Bank share Rs.1364.00 crore and MHRD Rs.617.00 crore), the States' share will be Rs. 419.00 crore and the share of private unaided Institutions will be Rs. 30.00 crore.

- Funds will be made available through the SPFUs to the selected institutions from the selected States and UTs under two Sub-components - 1.1 (Strengthening Institutions to Improve Learning Outcomes and Employability of Graduates) and 1.2 (Scaling-up Postgraduate Education and Demand Driven Research and Development and Innovation) and also to around 30 Centres of Excellence selected under Sub-component 1.2.1 (Establishing Centres of Excellence).
- Funds will be made available to the selected CFIs under both the Components through MHRD.

6.2 Fund Allocation:

Indicative funding by components, funding pattern and cost sharing details with respect to Central, State and Private unaided Institutions, approximate component-wise distribution of cost with respect to Central and State Project Management entities and Private unaided institutions, Indicative category-wise funding for suggested activities (for Centrally Funded, Government funded, Government aided and Private unaided institutions under Sub-component 1.1, 1.2 and 1.2.1) are indicated in Tables 12 to 17.

Table-12[#]
Indicative Funding by Components

(Rs. in crore)

S. No	Costing Parameters	No. of Institutions/ Entities (estimate)	Cost per Institution/ Entity	Total Cost
Component 1: Improving quality of Education in Project Institutions				
1	Project Institutions under Sub-component 1.1	125		
	(i) Centrally funded, Government funded and Government Aided Institutions	100 [~]	10	1000
	(ii) Private unaided Institutions	25	4	100
2	Project Institutions under Sub-component 1.2 [*]	75		
	(i) Centrally funded, Government funded and Government Aided Institutions	60	12.5	750
	(ii) Private unaided Institutions	15	4	60
3	Establishment of Centres of Excellence under Sub-component 1.2.1 from Centrally Funded, Government funded, Government aided and Private unaided Institutions	30	5	150
4	Pedagogical Training under Sub-component 1.3 for Project Institutions (Centrally funded, Government funded, Government aided and Private unaided Institutions)	200	---	40
Sub-total				2100
Component 2: Improving System Management				
1	Capacity Building to Strengthen Management	---	---	60
2	NPIU / MHRD (Project management through MIS, PMSS, eFMR including Monitoring and Evaluation, conduct of surveys, studies etc. and Incremental Operating Cost)	---	---	40
3	SPFUs	22		100
4	Un-allocated amount	---	---	130
Sub-total				330
Grand Total				2430

[#] Updated as per 5th NSC Meeting decision.

[~] Projected total number of institutions from two cycles of selection.

^{*} Updated as per 7th NSC Meeting decision.

Table-13
Funding Pattern and cost sharing details with respect to Central, State and Private unaided Institutions

S. No.	Percentage Share of Governments / Institution	Type of Institution					All project institutions	NPIU / MHRD	SPFU	Un-allocated amount
		CFI for all components	Government Funded & Aided for all components	Private unaided						
				Under Sub-component 1.1	Under Sub-component 1.2	Under Sub-component 1.2.1	Under Sub-component 1.3, 2.1			
1	Share of Central Government	100	75*	60	60	75*	100	100	75*	100
2	Share of State Government	---	25**	20	20	25**	--	---	25**	---
3	Share of Private unaided Institutions	---	---	20	20	---	---	---	---	---
TOTAL		100	100	100	100	100	100	100	100	100

Note:

* The share of Central Government will be 90% for the Special Category States and 75% for the General Category States and UTs.

** The share of State Government will be 10% for the Special Category States and 25% for the General Category States and UTs.

Table-14[#]

Approximate Component-wise Distribution of cost with respect to Central and State Project Management entities and Private Unaided Institutions

(Rs .in crore)

S. No.	Nature of Fund	Costing Parameters	Cost Share			Total Cost
			Central Govt.	State Govt.	Private unaided	
1		Project Institutions under Sub-component 1.1				
		• Centrally funded institutions (8 Nos.)	80	--	---	80
		• Government funded and Government aided Institutions (79) from Regular States (funding ratio 75:25)	592.50	197.50	---	790
		• Government funded and Government aided Institutions (03) from Special Category States (funding ratio 90:10)	27	3		30
		• Private unaided Institutions (23 Nos.)	55.20	18.40	18.40	92
		(i) Total cost of Project Institutions under Sub-component 1.1	754.70	218.90	18.40	992
2	a. Fund for project institution allocation	Project Institutions under Sub-component 1.2				
		• Centrally funded institutions (18 Nos.)	225	----	----	225
		• Government funded and Government aided Institutions (43) from Regular States (funding ratio 75:25)	403.13	134.37		537.50
		• Government funded and Government aided Institutions (2) from Special Category States (funding ratio 90:10)	22.50	2.50		25.00
		• Private unaided State Institutions (14)	33.60	11.20	11.20	56
		(ii) Total cost of Project Institutions under Sub-component 1.2	684.23	148.07	11.20	843.50
3		Establishment of 30 Centres of Excellence under Sub-component 1.2.1				
		• 8 CoEs from 7 CFIs	40	---	--	40
		• 22 CoEs from 17 Govt. funded, Govt. aided and 3 Private unaided Institutions	82.50	27.50	---	110
		(iii) Total cost of Project Institutions under Sub-component 1.2.1	122.50	27.50	--	150
		Sub-total (a=i+ii+iii)	1561.43	394.47	29.60	1985.50
4	b. Fund for Pedagogical Trainings	Pedagogical Trainings under Sub-component 1.3 to Project Institutions (Centrally Funded, Government funded, Government aided and Private unaided Institutions)	40	---	---	40
		Sub-total (b)	40	---	--	40
5	c. Capacity Building Fund	Capacity Building under Sub-component 2.1 of project institutions, MHRD/State, NPIU officials	60	--	---	60
		Sub-total (c)	60	--	---	60
6	d. Systems Support Fund	NPIU / MHRD (Project management through MIS, PMSS, e-FMR including Monitoring and Evaluation, conduct of surveys, studies etc. and Incremental Operating Cost)	40	---	---	40
7		SPFU	75	25	---	100
8		Un-allocated Amount	204.50	---	---	204.50
		Sub-total (d)	319.50	25	---	344.50
		GRAND TOTAL (a+b+c+d)	1980.93	419.47	29.60	2430

[#] Updated as per 5th NSC Meeting decision.

Table-15

Indicative Category-wise Funding for Suggested Activities per Project Institution (Centrally Funded, Government Funded and Government Aided Institution) selected under Sub-component 1.1 : (Strengthening Institutions to Improve Learning Outcomes and Employability of Graduates)

S. No.	Suggested Activities	Category of Expenditure# (Head of expenditure)	Percentage (%)	Cost (Rs. in crore)
1	Procurement of Goods (equipment, furniture, books LRs, software and minor items) and civil works for improvement in teaching, training and learning facilities	Improvement in Teaching & Learning facilities	55	5.50
2	Providing Teaching and Research Assistantships to increase enrolment in existing and new PG programmes in Engineering and applied sciences disciplines	Assistantships	35	3.50
3	Enhancement of R&D and institutional consultancy activities	R&D		
4	Faculty and Staff development for improved competence	FSD		
5	Enhanced interaction with Industry	I-I Cells		
6	Institutional Management Capacity enhancement	Capacity development		
7	Implementation of Institutional reforms	Reforms		
8	Support to student needs	Student support		
9	Incremental Operating Cost	IOC	10	1.00
TOTAL			100	10.00

Note:

- 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 regular and contractual faculty and staff appointed against new posts created under the Project can be charged to the Project.
- The Incremental Operating Cost means the costs of operation and maintenance of equipment, office expenses, hiring of vehicles, consumables, salaries and allowances of regular and contract faculty and staff against posts created under the Project. It will also include travel costs incurred for the Project Management activities i.e visit to the NPIU, the SPFU, Universities, etc.
- Procurement of consultant services, if required, for the activities listed from Sr. No. 2-8 are permitted. The expenditure on procurement of consultant services is to be booked against the head of expenditure of that particular activity. The services of consultant are to be procured by following the World Bank norms and procedures through the PMSS.
- Fund from Procurement and IOC Head of expenditure can also be re-appropriated to Head of expenditure for academic activities (S.No.2-8) but not vice versa.

Updated as per discussion with Stakeholders.

Table-15(a)

Indicative Category-wise Funding for Suggested Activities per Project Institution (Private Unaided Institution) Selected under Sub-component 1.1 : (Strengthening Institutions to Improve Learning Outcomes and Employability of Graduates)

S. No.	Suggested Activities	Category of Expenditure [#] (Head of expenditure)	Percentage (%)	Cost (Rs. in crore)
1	Acquiring text books, e-journals and software ³³	Learning resources	25	1.00
2	Providing Teaching and Research Assistantships to increase enrolment in existing and new PG programmes in Engineering & applied sciences disciplines	Assistantships	65	2.60
3	Enhancement of R&D and Institutional consultancy activities	R&D		
4	Faculty and Staff development for improved competence	FSD		
5	Enhanced interaction with Industry	I-I Cells		
6	Institutional Management Capacity enhancement	Capacity development		
7	Implementation of Institutional reforms	Reforms		
8	Support to student needs	Student Support	10	0.40
9	Incremental Operating Cost	IOC		
TOTAL			100	4.00

Note:

- These institutions may acquire the text books, e-journals and software with the approval of Institution's BoG and under information to the respective SPFU. Further, these institutions should ensure that the allocated funds be spent judiciously covering all the envisaged activities under the project for the private unaided institutions, so that the objectives of the project are achieved. Moreover, it should be ensured that these institutions should follow scrupulously the agreed rules and procedures as set out in the Financial Management and Procurement Manual.
- Salary expenditure of faculty and staff appointed on contract against the existing vacancies cannot be charged to the Project. However, the salary expenditure of regular and contractual faculty appointed against new posts created under the Project can be charged to the Project.
- The Incremental Operating Cost means the consumables, salaries and allowances of regular and contract faculty and staff against posts created in the project. It will also include travel costs incurred for the Project Management activities i.e. visit to the NPIU, the SPFU, Universities, etc.
- Procurement of consultant services, if required, for the activities listed from Sr. No. 2-8 are permitted. The expenditure on procurement of consultant services is to be booked against the head of expenditure of that particular activity. The services of consultant are to be procured by following the World Bank norms and procedure through the PMSS.
- Fund from IOC Head of expenditure can also be re-appropriated to Head of expenditure for academic activities (S.No.2-8) but not vice versa.

[#] Updated as per discussion with Stakeholders.

³³ Updated as per Minutes of Review Meeting held on 19th June 2013.

Table-16

Indicative Category-wise Funding for Suggested Activities per Project Institution (Centrally Funded, Government funded and Government Aided Institution) Selected under Sub-component 1.2 : (Scaling-Up Postgraduate Education and Demand-Driven Research & Development and Innovation):

S. No.	Suggested Activities	Category of Expenditure# (Head of expenditure)	Percentage (%)	Cost (Rs. in crore)
1	Procurement of Goods (equipment, furniture, books LRs, software and minor items) and civil works for improvement in teaching, training and learning facilities	Improvement in Teaching & Learning facilities	45	5.625
2	Providing Teaching and Research Assistantships for significantly increasing enrolment in existing and new Masters and Doctoral programmes in Engineering & applied sciences disciplines	Assistantships	45	5.625
3	Enhancement of R&D and Institutional consultancy activities	R&D		
4	Faculty and Staff development for improved competence	FSD		
5	Enhanced interaction with Industry	I-I-I Cells		
6	Institutional Management Capacity enhancement	Capacity development		
7	Implementation of Institutional reforms	Reforms		
8	Support to student needs	Student Support		
9	Incremental Operating Cost	Incremental Operating Cost	10	1.250
TOTAL			100	12.500

Note:

- 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 regular and contractual faculty and staff appointed against new posts created under the Project can be charged to the Project.
- The Incremental Operating Cost means the costs of operation and maintenance of equipment, office expenses, hiring of vehicles, consumables, salaries and allowances of regular and contract faculty and staff against posts created in the project. It will also include travel costs incurred for the Project Management activities i.e. visit to the NPIU, the SPFU, Universities etc.
- Procurement of consultant services, if required, for the activities listed from Sr. No. 2-8 are permitted. The expenditure on procurement of consultant services is to be booked against the head of expenditure of that particular activity. The services of consultant are to be procured by following the World Bank norms and procedures through the PMSS.
- Fund from Procurement and IOC Head of expenditure can also be re-appropriated to Head of expenditure for academic activities (S.No.2-8) but not vice versa.

Updated as per discussion with Stakeholders.

Table-16 (a)[#]

Indicative Category-wise Funding for Suggested Activities per Private unaided Institution Selected under Sub-component 1.2 : (Scaling-Up Postgraduate Education and Demand-Driven Research & Development and Innovation):

S. No.	Suggested Activities	Category of Expenditure [#] (Head of expenditure)	Percentage (%)	Cost (Rs. in crore)
1	Acquiring text books, e-journals and software ³⁴	Learning Resources	25	1.00
2	Providing Teaching and Research Assistantships for significantly increasing enrolment in existing and new Masters and Doctoral programmes in Engineering & applied sciences disciplines	Assistantships	65	2.60
3	Enhancement of R&D and Institutional consultancy activities	R&D		
4	Faculty and Staff development for improved competence	FSD		
5	Enhanced interaction with Industry	I-I-I Cells		
6	Institutional Management Capacity enhancement	Capacity development		
7	Implementation of Institutional reforms	Reforms		
8	Support to student needs	Student Support		
9	Incremental Operating Cost	IOC	10	0.40
TOTAL			100	4.00

Note:

- These institutions may acquire the text books, e-journals and software with the approval of Institution's BoG and under information to the respective SPFU. Further, these institutions should ensure that the allocated funds be spent judiciously covering all the envisaged activities under the project for the private unaided institutions, so that the objectives of the project are achieved. Moreover, it should be ensured that these institutions should follow scrupulously the agreed rules and procedures as set out in the Financial Management and Procurement Manual.
- Salary expenditure of faculty and staff appointed on contract against the existing vacancies cannot be charged to the Project. However, the salary expenditure of regular and contractual faculty appointed against new posts created under the Project can be charged to the Project.
- The Incremental Operating Cost means the consumables, salaries and allowances of regular and contract faculty and staff against posts created in the project. It will also include travel costs incurred for the Project Management activities i.e. visit to the NPIU, the SPFU, Universities, etc.
- Procurement of consultant services, if required, for the activities listed from Sr. No. 2-8 are permitted. The expenditure on procurement of consultant services is to be booked against the head of expenditure of that particular activity. The services of consultant are to be procured by following the World Bank norms and procedure through the PMSS.
- Fund from IOC Head of expenditure can also be re-appropriated to Head of expenditure for academic activities (S.No.2-8) but not vice versa.

[#] Included as per 7th NSC Meeting decision.

[#] Updated as per discussion with Stakeholders.

³⁴ Updated as per Minutes of Review Meeting held on 19 June 2013.

Table-17
Indicative Category-wise Funding for Suggested Activities per Centre of Excellence
from Centrally Funded, Government funded and Government aided Institution selected
under Sub-component 1.2.1 : (Establishing Centres of Excellence)

S. No.	Suggested Activities	Category of Expenditure [#] (Head of expenditure)	Percentage (%)	Cost (Rs. in crore)
1	Procurement of Goods (equipment, furniture, books LRs, software and minor items) and civil works for improvement in Research and Development facilities	Improvement in Teaching & Learning facilities	55	2.75
2	Providing Teaching and Research Assistantships for enrolment in Masters and Doctoral programmes in topics linked to economic or societal needs in the thematic areas	Assistantships	35	1.75
3	Collaboration with Industry for applicable research and product development	I-I Cells		
4	National/International collaboration for Research and Development activities with academic institutions and R&D organizations	R&D		
5	Enhancing research competence of faculty and knowledge sharing in thematic areas,	FSD		
6	Incremental Operating Cost	Incremental Operating Cost	10	0.50
TOTAL			100	5.00

Note:

- 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/staff appointed against new posts created for the CoE can be charged to the Project.
- The Incremental Operating Cost means the costs of operation and maintenance of equipment acquired under the project for the CoE, office expenses, hiring of vehicles, consumables, salaries and allowances of contract faculty and staff against posts created in the project for CoE. It will also include travel costs incurred for the Project Management activities i.e. visit to the NPIU, the SPFU and Universities etc.
- Procurement of consultant services, if required, for the activities listed from Sr. No. 2-5 are permitted. The expenditure on procurement of consultant services is to be booked against the head of expenditure of that particular activity. The services of consultant are to be procured by following the World Bank norms and procedures through the PMSS.
- Fund from IOC Head of expenditure can be re-appropriated to Head of expenditure for academic activities (S.No.2-5) but not vice versa.

[#] Updated as per discussion with Stakeholders.

Table-17 (a)^Y
Indicative Category-wise Funding for Suggested Activities per Centre of Excellence
from Private unaided Institution selected under Sub-component 1.2.1 : (Establishing Centres of Excellence)

S. No.	Suggested Activities	Category of Expenditure [#] (Head of expenditure)	Percentage (%)	Cost (Rs. in crore)
1	Acquiring text books, e-journals and software ³⁵	Learning resources	25%	1.25
2	Providing Teaching and Research Assistantships for enrolment in Masters and Doctoral programmes in topics linked to economic or societal needs in the thematic areas	Assistantships	65%	3.25
3	Collaboration with Industry for applicable research and product development	I-I Cells		
4	National/International collaboration for Research and Development activities with academic institutions and R&D organizations	R&D		
5	Enhancing research competence of faculty and knowledge sharing in thematic areas	FSD		
6	Incremental Operating Cost	Incremental Operating Cost	10	0.50
TOTAL			100	5.00

Note:

- These institutions may acquire the text books, e-journals and software with the approval of Institution's BoG and under information to the respective SPFU. Further, these institutions should ensure that the allocated funds be spent judiciously covering all the envisaged activities under the project for the private unaided institutions, so that the objectives of the project are achieved. Moreover, it should be ensured that these institutions should follow scrupulously the agreed rules and procedures as set out in the Financial Management and Procurement Manual.
- 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/staff appointed against new posts created for the CoE can be charged to the Project.
- The Incremental Operating Cost means consumables, salaries and allowances of contract faculty and staff against posts created for CoE. It will also include travel costs incurred for the Project Management activities i.e. visit to the NPIU, the SPFU and Universities etc.
- Procurement of consultant services, if required, for the activities listed from Sr. No. 2-5 are permitted. The expenditure on procurement of consultant services is to be booked against the head of expenditure of that particular activity. The services of consultant are to be procured by following the World Bank norms and procedures through the PMSS.
- Fund from IOC Head of expenditure can also be re-appropriated to Head of expenditure for academic activities (S.No.2-5) but not vice versa.

^Y Included as per 7th NSC Meeting decision.

[#] Updated as per discussion with Stakeholders.

³⁵ Updated as per Minutes of Review Meeting held on 19 June 2013.

6.3 Strategy:

- It is essential to ensure that the Project funds received by an Institution are used only for the purpose for which 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 SPFUs and the project institutions.
- The disbursement of funds to the project institutions will be based on the quarterly Financial Monitoring Report (FMR), which includes comparison of budgeted and actual expenditure and analysis of major variances.
- Release of funds to all 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 bills.

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 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 under the Project.
- The forecast 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 straightaway release the funds to CFIs based on the Financial Monitoring Reports (FMRs).
- MHRD will release the Central Government share to States through GoI channels and funds will 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 Principal Secretary/Secretary of 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 officer, will submit the bill to the Treasury (Pay & 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 officer, in any Nationalized Bank for further operation of funds.
- The 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 officer.
- The project institutions will receive the funds from the SPFU through cheque in a commercial bank account opened for the Project.
- The Private Unaided Institutions will deposit its 20% share into the bank account and submit the Certificate received from the bank to the SPFU and only after that, the SPFU will release 80% share (60% Central Share and 20% state share) to the Private Unaided Institutions accordingly.

- The project institutions will submit “Financial Monitoring Report” (FMR) quarterly to the SPFU. The SPFU will consolidate the FMR of all its project institutions and itself 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.
- The NPIU will submit consolidated FMR of all States and CFIs and also of the 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 the 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 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, 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 Electronic Financial Monitoring Report (e-FMR):

The Financial Monitoring Reports (FMRs) are to be submitted electronically. A software has been developed to enable all the project institutions, the SPFUs and the NPIU to enter the FMRs electronically through online access of a website. The data required for FMRs would be entered into the software by each individual project institution and which then will be consolidated by the software. The FMR generated by the software shall be shared with the World Bank for disbursements. A user manual for the software will be made available separately.

6.6 Auditing:

Statutory Audit at State Level:

The SPFU will appoint a firm of chartered accountants for audit of the SPFU and project institutions within the State.

Audit at the SPFU: The audit at the SPFU level will include audit of Financial Monitoring Report (FMRs), and project accounts. The SPFU will be required to maintain the records of FMRs and the project accounts separately to enable the auditor to carry out necessary checks and verification effectively.

Audit of Institutes: Further, the auditor will audit the project accounts of the institutions. For this purpose, the institutions are required to furnish all documents / records to the auditors to facilitate timely audit. Each institution will put up the audit report to Board of Governors within a reasonable period of completion of audit.

Consolidated Audit Report of State: The SPFU will be required to submit a consolidated audit report for the State to the NPIU by **31st July** of every project year.

Statutory Audit at CFIs:

Centrally Funded Institutions will appoint a firm of Chartered Accountant to audit the accounts and the audit will be completed by 30th June of every financial year. For this purpose, the institutions are required to furnish all documents / records to the auditors to facilitate timely audit. Audit of Centrally Funded Institutions will be as per the Terms of Reference mentioned in the Manual (Refer Annex-XXIV of the Financial Management Manual).

Statutory Audit at the NPIU:

Annual audit of the NPIU by a firm of chartered accountants will be completed by **30th June** of every financial year.

Consolidated Audit Report for Project:

The NPIU will consolidate the audit reports of the States, CFIs and the NPIU. There will be one single audit report for the entire project which will be submitted by the NPIU to the World Bank by **30th September** of every financial year.

- The audit report will be as per prescribed format. Please refer to **format of consolidated audit report** in **Annex –XVII** of the Financial Management Manual. However, in case of any adverse observation/remarks, the auditor may provide a qualified report with details of observations and reasons for qualifications.

6.7 Financial Management Manual:

The “Financial Management Manual” (FMM) developed for the Project provides the essential information, to enable the SPFUs, the NPIU 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 FMM at Appendix-I.

Section-7
PERMISSIBLE AND NON-PERMISSIBLE EXPENDITURES[#]

Introduction:

Permissible and non-permissible expenditures under the Project for Institutions, the SPFUs and the NPIU are given in Table-18 to 21. These tables are expected to facilitate project entities planning of fund requirement and to avoid non reimbursable expenditure under the Project.

[#] After discussion with States and Institutions during workshops, approved and identified activities are brought under head of expenditure of activities to have coherence with Table No.15, 15-A, 16, 16-A, 17 & 17-A.

Table-18
Permissible³⁶ and Non-permissible Expenditures (Indicative)
for Centrally Funded, Government Funded and Government Aided Institution Participating in Sub-component 1.1 :
Strengthening Institutions to Improve Learning Outcomes and Employability of Graduates

Suggested Activity*	Centrally Funded, Government Funded and Aided Institutions	
	Permitted	Not Permitted
1. Procurement of goods (equipment, furniture, books & learning resources, software and minor items) and civil works for improvement in teaching, training and learning facilities	<ul style="list-style-type: none"> • Equipment and furniture³⁷ for: <ul style="list-style-type: none"> ○ modernizing and strengthening of existing UG and PG laboratories, workshops, computer centre, library and support facilities ○ modernization of laboratories in supporting departments ○ modernizing classrooms ○ establishing new UG and PG laboratories, if any, required for the existing programmes ○ establishing laboratories for starting new PG programmes in engineering disciplines ○ faculty research and institutional consultancy work ○ campus-wide networking of academic and administrative buildings, hostels and faculty residences, and enhancing internet facilities, books & learning resources ○ Course specific softwares ○ procurement of equipment like computer, printer, etc. for Institutional TEQIP Unit ○ ICT enable learning and related software and hardware ○ Language laboratory 	<ul style="list-style-type: none"> • Equipment and furniture for: <ul style="list-style-type: none"> ○ starting new UG programmes, and ○ improving hostel facilities other than electronic networking • Purchase of vehicles
	<ul style="list-style-type: none"> • Modernization and strengthening of libraries: <ul style="list-style-type: none"> ○ Procurement of learning resources (print / digital books and journals) ○ Digitization of library books. ○ Establishment of CD bank. ○ Membership of INDEST-AICTE etc. 	
	<ul style="list-style-type: none"> • Civil works³⁸ upto about 5% of project allocation for the institution for: <ul style="list-style-type: none"> ○ Refurbishment, repair works, extension of existing academic buildings such as classrooms, laboratories, workshops, computer centre and library ○ Reducing environment degradation and complying with EMF (see Civil Works Manual) 	<ul style="list-style-type: none"> • Civil works undertaken for betterment of hostels, staff quarters and non-academic structures
2. Providing Teaching and Research Assistantships to increase enrolment in existing and new PG ³⁹ programmes in Engineering & applied sciences disciplines	<ul style="list-style-type: none"> • Teaching Assistantships⁴⁰ for Masters students in Engineering & applied sciences disciplines that do not receive GATE/other scholarships • Research Assistantships to Doctoral students in Engineering & applied sciences disciplines that do not receive any scholarships through NDF / other schemes • Post doctoral fellowships in engineering disciplines 	

*Note : (1) The approving authority for these activities is BoG / Competent Authority of the institutions except few cases of procurement (including services) where World Bank's No objection is required. In addition, institution may also conduct other activities (not listed here) under the scope of the project and those fulfil the objectives of the project with the approval of BoG/Competent Authority of the institution.

(2) Procurement of consultant services, if required, for the activities listed from Sr. No. 2-8 are permitted. The expenditure on procurement of consultant services is to be booked against the head of expenditure of that particular activity. The services of consultants are to be procured by following the World Bank norms and procedures through the PMSS.

³⁶ Expenditure is permissible only for the AICTE/UGC approved UG and PG teaching programmes, provided that Goods, Civil Works and Consultancy Services are procured in accordance with the procurement methods and procedures given in the Procurement Manual and are not declared ineligible expenditure by the external Financial Auditors.

³⁷ Expenditure for procurement of any equipment and furniture will not be admissible if procured with co-financing from any other source.

³⁸ Expenditure for any Civil Work activity will not be admissible if undertaken with co-financing from any other source.

³⁹ The term PG covers both Masters and Doctoral programmes.

⁴⁰ The amount of Teaching and Research Assistantships will be governed by the norms as prescribed by the UGC/AICTE or BoG of the institution.

<p>3. Enhancement of Research and Development and Institutional Consultancy Activities</p>	<ul style="list-style-type: none"> • Securing sponsored projects and consultancy assignments • Publication of research papers in refereed journals • Commercialization of research products • Patenting of research products • Travel cost, hospitality and honorarium paid to experts for participation in Research & Development activities and for delivering expert lectures in the project institutions • Organizing conferences on R&D topics/themes • Expense on characterization of sample of R&D projects undertaken by students/faculty • Presentation of paper in International Seminar, Conference etc. by Doctoral students <ul style="list-style-type: none"> ○ Registration fee; travel expenses; boarding, lodging, and sundry expenses/allowances as per norms approved by BoG 	<ul style="list-style-type: none"> • 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>)
	<ul style="list-style-type: none"> • Developing research interest among UG and Masters students: <ul style="list-style-type: none"> ○ Fiscal incentive (as per norms approved by the BoG) to students that voluntarily associate with Industry oriented R&D projects ○ Expenses on travel, boarding and lodging of students that associate with an Industry for about 3-4 weeks during vacations to continue work on R&D projects ○ Consumables 	
	<ul style="list-style-type: none"> • Seed grant for research to faculty members and / or students to venture into innovative research and to strengthen research culture⁴¹ 	
	<ul style="list-style-type: none"> • Appointment of retired teachers from IITs/NITs/other reputed institutions as Senior Research Advisor for enhancement of Research & Development activities⁴¹ 	
<p>4. (a) Faculty development for improved competence on subject area <i>(applicable for faculty of engineering disciplines and supporting departments)</i></p>	<p>(j) Qualification upgradation:</p> <ul style="list-style-type: none"> • If faculty is enrolled for qualification upgradation either through full-time or part-time or by sandwich joint arrangement other than the parent Institution : <ul style="list-style-type: none"> ○ Fees charged for course work, registration fee etc. ○ Use of research facilities ○ Consumables ○ Expenses towards thesis printing and publication of thesis-based research papers • If faculty is registered for qualification upgradation on full-time or part-time basis within the parent Institution : <ul style="list-style-type: none"> ○ Consumables ○ Expenses towards thesis printing and publication of thesis-based research papers 	<ul style="list-style-type: none"> • Salary, living expenses and travel expenses of faculty registered for qualification upgradation (on full or part time or by sandwich joint arrangement) either within the parent Institution or through deputation to another Institution
	<p>(ii) Enhancing Knowledge in Research Competence:</p> <ul style="list-style-type: none"> • Subject upgradation and research competence : Undertaking trainings in subject knowledge and research competence upgradation by faculty as planned through TNA: 	<ul style="list-style-type: none"> • Any other payment to the faculty for attending the Course

⁴¹ Updated as per Minutes of 1st JRM held during 18th Feb-1st March 2013.

	<ul style="list-style-type: none"> ○ Course fee; travel expenses, boarding and lodging, and sundry expenses/allowances as per applicable norms and rules when faculty is deputed out-station [as per Guidelines on International Travel (Annex-VII)] 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 ○ 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 	
	<ul style="list-style-type: none"> ● Participation by faculty in seminars, conferences, workshops and in Continuing Education Programmes (CEPs)⁴² etc.: <ul style="list-style-type: none"> ○ Registration fee; travel expenses; boarding, lodging, and sundry expenses/allowances as per applicable norms and rules when faculty is deputed outstation [as per Guidelines on International Travel (Annex-VII)] 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 ○ 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 	<ul style="list-style-type: none"> ● 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
	<ul style="list-style-type: none"> ● Organizing subject area training programmes, pedagogical trainings, workshops, seminars, conferences and Continuing Education Programme (CEP): <ul style="list-style-type: none"> ○ Hospitality to participants ○ Venue and logistic arrangements ○ Replication of printed training materials. ○ Publication of proceedings ○ Travel, boarding and lodging for invited experts and honorarium for delivering/organizing expert lectures, CEPs etc. 	
<p>4 (b) Staff development for improved competence in skills</p>	<ul style="list-style-type: none"> ● Training of senior non-teaching staff, administrative and finance officers, etc.: <ul style="list-style-type: none"> ○ 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. ○ 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 	<ul style="list-style-type: none"> ● Any other payment to the staff for attending the training programme.
	<ul style="list-style-type: none"> ● Training of technical support staff: (applicable for staff of engineering disciplines and supporting departments) <ul style="list-style-type: none"> ○ 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. 	<ul style="list-style-type: none"> ● Any other payment to the staff for attending the training programme.

⁴² CEPs are to be targeted for working professionals only. The duration of the programme must be atleast 1 week (5 working days). The participants preferably should have representations from industries, faculty from other AICTE recognized Engineering institutions and few faculty of host institution. The CEPs be conducted preferably in cutting edge technologies.

	<ul style="list-style-type: none"> ○ 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 	
	<ul style="list-style-type: none"> ● Training of administrative and general support staff in functional areas: <ul style="list-style-type: none"> ○ 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. ○ 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 	<ul style="list-style-type: none"> ● Any other payment to the staff for attending the training programme
5. Enhanced interaction with Industry	<ul style="list-style-type: none"> ● Travel cost, hospitality and honorarium to industry personnel for participation in curriculum development/revision/restructuring, student assessment and Institutional bodies, and for delivering expert lectures ● Expenditure for increasing I-I-I through PSAG ● Expenditure towards inviting industry (excluding travel cost and lodging boarding) for campus interviews and hospitality during campus interviews ● Tutoring by industry experts to prepare students for on- and off-campus job interviews ● Organizing short term training programme in collaboration with Industry ● Student attending internship in industry <ul style="list-style-type: none"> ○ Travel expenses, boarding, lodging and sundry expenses / allowances as per norms approved by BoG 	
6. Institutional Management Capacity Enhancement	<ul style="list-style-type: none"> ● Management development training of Institution's senior officials and senior faculty: <ul style="list-style-type: none"> ○ Course fee; travel expenses, boarding and lodging, and sundry expenses /allowances as per applicable norms and rules when deputed outstation 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 ○ Study Tours; travel expenses, boarding and lodging, and sundry expenses / allowances as per applicable norms and rules when deputed for study tour within India or abroad [as per Guidelines on International Travel (Annex-VII)] for the duration of the tour and travel time ○ Trainer's fee and overheads; and sundry expenditure if training programmes organized within the parent Institution ● Orientation of BoG Members: Travel costs, boarding and lodging expenditure and sitting fee to Board Members; sundry expenses in organizing Orientation Programme 	<ul style="list-style-type: none"> ● Any other payment to the officials and senior faculty for attending the Course
7. Implementation of Institutional Academic Reforms	<ul style="list-style-type: none"> ● Curricular Reforms: <ul style="list-style-type: none"> ○ Travel cost, hospitality and honorarium paid to industry personnel / academic expert for participation in curriculum development/revision/restructuring and curricular reforms ○ Sundry expenditure on holding meetings of the concerned Committees ○ Organizing workshops on reforms 	

	<ul style="list-style-type: none"> • Accreditation: <ul style="list-style-type: none"> ○ Accreditation fees to NBA • Autonomy: <ul style="list-style-type: none"> ○ Assessment fees to UGC or University for obtaining Autonomous Institution Status from the UGC 	<ul style="list-style-type: none"> • Any payment in cash of kind or expenses related to the hosting of Accreditation Committee or any other assessment committee.
8. Support to students need	<ul style="list-style-type: none"> • Honorarium to faculty and staff for taking bridge Courses, remedial teaching classes and skill development training • Honorarium, TA and DA to outside experts for specialized training in soft components including communication - presentation skills. As per norms decided by BoG • Honorarium, TA and DA to outside experts for specialized training in Finishing School • Consultancy services procured for technical assistance related to knowledge/skill enhancement for weak students and establishing a Finishing School 	<ul style="list-style-type: none"> • Cost towards the boarding and lodging of students for attending the Finishing School
9. Incremental Operating Cost	<ul style="list-style-type: none"> • Organizing BoG and other Committee Meetings (Travel expenses; boarding, lodging, and sundry expenses/allowances for out-station non-official members as per applicable norms and rules, Local travel expenses for in-station non-official members as per applicable norms and rules, Sitting fee to non-official members) • TA & DA for faculty and staff attending workshops and meetings organized by the NPIU and the SPFUs • TA & DA for faculty and staff attending training in the World Bank procedures as arranged by the NPIU and the SPFUs • Student training materials and other consumables • Organising Industrial visits, attending workshops, Technology exhibitions, publications in National / International conferences held in India of students UG and PG – Registration Fees, Travelling, boarding & lodging and incidental charges • Occasional hiring of vehicles for project related works 	
	<ul style="list-style-type: none"> • Maintenance of furniture and equipment including computers and other assets: <ul style="list-style-type: none"> ○ Maintenance of furniture ○ Maintenance of equipment including computers and related devices through Annual Maintenance Contracts 	<ul style="list-style-type: none"> • Maintenance of buildings <i>(this should be carried out through Institution's own budget)</i>
	<ul style="list-style-type: none"> • Hiring technical services for: <ul style="list-style-type: none"> ○ mentoring ○ external financial audit for TEQIP funds 	
	<ul style="list-style-type: none"> • Salaries: <ul style="list-style-type: none"> ○ Salaries of additional full-time regular and contract faculty including adjunct faculty and staff appointed against posts created under the project subject to due approval from the competent authority of the institution / State 	<ul style="list-style-type: none"> • Salaries to contract faculty and staff appointed against existing vacancies Salaries of Adjunct faculty appointed against existing vacancies <i>(These are to be borne by the Institution)</i>

Table-18 (a)

Permissible⁴³ and Non-permissible Expenditures (Indicative)
for Private Unaided Institution Participating in Sub-component 1.1 : Strengthening Institutions to Improve Learning Outcomes and Employability of Graduates

Suggested Activity	Private Unaided Institutions	
	Permitted	Not Permitted
1. Acquiring text books, e-journals and software ⁴⁴ (a) Participation in QEEE programme	<ul style="list-style-type: none"> • Text books • e-journals • software • Hardware component (not exceeding Rs.7-8 Lakhs) <ul style="list-style-type: none"> (i) Mirror Server (ii) DTH receiver through the Set Top Box (iii) Class room with projector, speaker, laptop and other facilities (iv) Wi-fi access to students (v) Access by students on some tablets/laptops. 	
2. Providing Teaching and Research Assistantships to increase enrolment in existing and new PG ⁴⁵ programmes in Engineering & applied science disciplines	<ul style="list-style-type: none"> • Teaching Assistantships⁴⁶ for Masters students in Engineering & applied sciences disciplines that do not receive GATE/other scholarships • Research Assistantships to Doctoral students in Engineering & applied sciences disciplines that do not receive any scholarships through NDF / other schemes • Post doctoral fellowships in engineering disciplines 	
3. Enhancement of Research and Development and Institutional Consultancy Activities ^{47, 48}	<ul style="list-style-type: none"> • Securing sponsored projects and consultancy assignments • Publication of research papers in refereed journals • Commercialization of research products • Patenting of research products • Travel cost, hospitality and honorarium paid to experts for participation in Research & Development activities and for delivering expert lectures in the project institutions • Organizing conferences on R&D topics/themes • Expense on characterization of sample of R&D projects undertaken by students/faculty • Presentation of paper in International Conference etc. [as per Guidelines on International Travel (Annex-VII)] by Doctoral students <ul style="list-style-type: none"> ○ Registration fee; travel expenses; boarding, lodging, and sundry expenses/allowances as per norms approved by BoG 	<ul style="list-style-type: none"> • 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>
	<ul style="list-style-type: none"> • Developing research interest among UG and Masters students: <ul style="list-style-type: none"> ○ Fiscal incentive (as per norms approved by the BoG) to students that voluntarily associate with Industry oriented R&D projects ○ Expenses on travel, boarding and lodging of students that associate with an Industry for about 3-4 weeks during vacations to continue work on R&D projects ○ Consumables 	

Note: (1) Procurement of consultant services, if required, for the activities listed from Sr. No. 2-8 are permitted. The expenditure on procurement of consultant services is to be booked against the head of expenditure of that particular activity. The services of consultants are to be procured by following the World Bank norms and procedures through the PMSS.

⁴³ Expenditure is permissible only for the AICTE approved UG & PG teaching Programmes, provided that Consultancy Services (including Pedagogical Training) are procured in accordance with the procurement methods and procedures given in the Procurement Manual and are not declared ineligible expenditure by the external Financial Auditors.

⁴⁴ Updated as per Minutes of Review Meeting held on 19 June 2013.

⁴⁵ The term PG covers both Masters and Doctoral programmes

⁴⁶ The amount of Teaching and Research Assistantships will be governed by the norms as prescribed by the UGC/AICTE.

⁴⁷ Updated as per Minutes of Review Meeting held on 19 June 2013.

⁴⁸ Updated as per Minutes of 1st JRM held during 18th Feb-1st March 2013.

	<ul style="list-style-type: none"> Seed grant for research to faculty members and / or students to venture into innovative research and to strengthen research culture⁴⁹ 	
	<ul style="list-style-type: none"> Appointment of retired teachers from IITs/NITs/other reputed institutions as Senior Research Advisor for enhancement of Research & Development activities⁵⁰ 	
4. (a) Faculty development for improved competence in subject area <i>(applicable for faculty of engineering disciplines & supporting department)</i>	<p>(i) Qualification upgradation:</p> <ul style="list-style-type: none"> If faculty is enrolled for qualification upgradation either through full-time or part-time or by sandwich joint arrangement other than the parent Institution : <ul style="list-style-type: none"> Fees charged for course work, registration fee etc. Use of research facilities Consumables Expenses towards thesis printing and publication of thesis-based research papers If faculty is registered for qualification upgradation on full-time or part-time basis within the parent Institution : <ul style="list-style-type: none"> Consumables Expenses towards thesis printing and publication of thesis-based research papers 	<ul style="list-style-type: none"> Salary, living expenses and travel expenses of faculty registered for qualification upgradation (on full or part time or by sandwich joint arrangement) either within the parent Institution or through deputation to another Institution
	<p>(iv) Enhancing Knowledge and Research Competence:</p> <ul style="list-style-type: none"> Subject upgradation and research competence : Undertaking trainings in subject knowledge and research competence upgradation by faculty as planned through TNA: <ul style="list-style-type: none"> Course fee; travel expenses, boarding and lodging, and sundry expenses / allowances as per applicable norms and rules when faculty is deputed out-station [as per Guidelines on International Travel (Annex-VII)] 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>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.</p>	<ul style="list-style-type: none"> Any other payment to the faculty for attending the Course

⁴⁹ Updated as per Minutes of Review Meeting held on 19 June 2013.

⁵⁰ Updated as per Minutes of 1st JRM held during 18th Feb-1st March 2013.

	<ul style="list-style-type: none"> • Participation by faculty in seminars, conferences, workshops and Continuing Education Programmes (CEPs⁵¹) etc.: ○ Registration fee; travel expenses; boarding, lodging, and sundry expenses/ allowances as per applicable norms and rules when faculty is deputed outstation [as per Guidelines on International Travel (Annex-VII)] 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 ○ 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 	<ul style="list-style-type: none"> • 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
	<ul style="list-style-type: none"> • Organizing subject area training programmes, pedagogical trainings, workshops, seminars, conferences and Continuing Education Programmes (CEPs): ○ Hospitality to participants. ○ Venue and logistic arrangements. ○ Replication of printed training materials. ○ Publication of proceedings. ○ Travel, boarding and lodging for invited experts and honorarium for delivering/organizing expert lectures, CEPs, etc. 	
4 (b) Staff development for improved competence in skills	<ul style="list-style-type: none"> • Training of senior non-teaching staff, administrative and finance officers, etc. ○ 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. ○ 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 	<ul style="list-style-type: none"> • Any other payment to the staff for attending the training programme.
	<ul style="list-style-type: none"> • Training of technical support staff: (applicable for staff of engineering disciplines and supporting departments) ○ 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 ○ 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 	<ul style="list-style-type: none"> • Any other payment to the staff for attending the training programme.
	<ul style="list-style-type: none"> • Training of administrative and general support staff in functional areas: ○ 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 	<ul style="list-style-type: none"> • Any other payment to the staff for attending the training programme

⁵¹ CEP are to be targeted for working professionals only. The duration of the programme must be atleast 1 week (5 working days). The participants preferably should have representations from industries, faculty from other AICTE recognized Engineering institutions and few faculty of host institution. The CEP be conducted preferably in cutting edge technologies.

	<ul style="list-style-type: none"> ○ 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 	
5. Enhanced interaction with Industry	<ul style="list-style-type: none"> ● Travel cost, hospitality and honorarium to industry personnel for participation in curriculum development/revision/ restructuring, student assessment and Institutional bodies, and for delivering expert lectures ● Expenditure for increasing I-I-I through PSAG. ● Expenditure towards inviting industry (excluding travel cost and lodging boarding) for campus interviews and hospitality during campus interviews. ● Arranging tutoring by industry experts to prepare students for on- and off-campus job interviews. ● Organizing short term training programme in collaboration with Industry ● Student attending internship in industry <ul style="list-style-type: none"> ○ Travel expenses, boarding, lodging and sundry expenses / allowances as per norms approved by BoG 	
6. Institutional Management Capacity Enhancement	<ul style="list-style-type: none"> ● Management development training of Institution's senior officials and Senior faculty: <ul style="list-style-type: none"> ○ course fee; travel expenses, boarding and lodging, and sundry expenses / allowances as per applicable norms and rules when deputed out-station [as per Guidelines on International Travel (Annex-VII)] 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. ○ study tours; 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. ○ trainer's fee and overheads; and sundry expenditure if training programmes organized within the parent Institution. ● Orientation of BoG Members: Travel Costs, boarding and lodging expenditure and sitting fee to Board Members; sundry expenses in organizing Orientation Programme. 	<ul style="list-style-type: none"> ● Any other payment to the officials and senior faculty for attending the Course
7. Implementation of Institutional Academic Reforms	<ul style="list-style-type: none"> ● Curricular Reforms: <ul style="list-style-type: none"> ○ Travel cost, hospitality and honorarium paid to industry personnel / academic expert for participation in curriculum development / revision / restructuring and curricular reforms; ○ Sundry expenditure on holding meetings of the concerned committees. ○ Organizing workshops on reforms ● Accreditation: <ul style="list-style-type: none"> ○ Accreditation fee to NBA ● Autonomy: <ul style="list-style-type: none"> ○ Assessment fee paid to UGC or University for obtaining Autonomous Institution status from the UGC. 	<ul style="list-style-type: none"> ● Any payment in cash of kind or expenses related to the hosting of Accreditation Committee or any other assessment committee.
8. Support to students need	<ul style="list-style-type: none"> ● Honorarium to faculty and staff for taking bridge Courses, remedial teaching classes and skill development training ● Honorarium, TA and DA to outside experts for specialized training in soft components including 	<ul style="list-style-type: none"> ● Cost towards the boarding and lodging of students for attending the Finishing School

	<p>communication - presentation skills As per norms decided by the BoG.</p> <ul style="list-style-type: none"> • Honorarium, TA and DA to outside experts for specialized training in Finishing School • Consultancy services for establishing a Finishing School and providing technical assistance related to academic support for weak students 	
9. Incremental Operating Cost	<ul style="list-style-type: none"> • TA & DA for faculty and staff attending workshops and Meetings organized by the NPIU and the SPFUs • TA & DA for faculty and staff attending training in the World Bank procedures as arranged by the NPIU and the SPFUs. • Student training materials and other consumables • Organising Industrial visits, attending workshops, Technology exhibitions, publications in National / International conferences held in India of students UG and PG – Registration Fees, Travelling and incidental charges 	
	<ul style="list-style-type: none"> • Hiring technical services for: <ul style="list-style-type: none"> ○ Mentoring ○ External financial auditing for TEQIP funds 	
	<ul style="list-style-type: none"> • Salaries: <ul style="list-style-type: none"> ○ Salaries of additional full-time regular and contract faculty and staff appointed against posts created under the Project subject to due approval of Competent Authority of the Institution / State 	<ul style="list-style-type: none"> • Salaries to contract faculty and staff appointed against existing vacancies. • Salaries of Adjunct faculty appointed against existing vacancies (These are to be borne by the Institution).

Table-19
Permissible⁵² and Non-permissible Expenditures (Indicative)
for Centrally Funded, Government Funded & Government Aided Institutions Participating in Sub-component 1.2 :
Scaling-up Postgraduate Education and Demand-Driven Research & Development and Innovation

Suggested Activity*	Centrally Funded, Government Funded and Government Aided Institutions	
	Permitted	Not Permitted
1. Procurement of goods (equipment, furniture, books & learning resources, software and minor items) and civil works for improvement in teaching, training and learning facilities	<ul style="list-style-type: none"> • Equipment and furniture⁵³ for: <ul style="list-style-type: none"> ○ Establishing new PG laboratories for existing programmes. ○ Establishing laboratories for starting new PG programmes in engineering disciplines ○ Faculty research and Institutional consultancy work. ○ Campus-wide networking of academic and administrative buildings, hostels and faculty residences and enhancing internet facilities. ○ Course specific software ○ Procurement of equipments like computer, printer etc. for Institutional TEQIP Unit ○ ICT enable learning and related software and hardware ○ Language laboratory 	<ul style="list-style-type: none"> • Equipment and furniture for: <ul style="list-style-type: none"> ○ starting new UG programmes, and ○ improving hostel facilities other than electronic networking. • Purchase of vehicles
	<ul style="list-style-type: none"> • Modernization and strengthening of libraries: <ul style="list-style-type: none"> ○ Procurement of learning resources (print / digital books and journals) ○ Digitization of library books ○ Establishment of CD bank ○ Membership of INDEST-AICTE etc 	
	<ul style="list-style-type: none"> • Civil works⁵⁴ upto about 3% of project allocation for the institution for: <ul style="list-style-type: none"> ○ Refurbishment of existing structures/ spaces to create new laboratories for PG programmes and research ○ Reducing environment degradation and complying with EMF (see Civil Works Manual) 	<ul style="list-style-type: none"> • Civil works undertaken for betterment of academic buildings such as UG classrooms; UG existing laboratories, workshops, computer centre and library; constructing new spaces and betterment of hostels.
2. Providing Teaching and Research Assistantships for significantly increasing enrolment in existing and New Masters and Doctoral programmes in engineering & applied sciences disciplines	<ul style="list-style-type: none"> • Teaching Assistantships⁵⁵ for Masters students in Engineering & applied sciences discipline that do not receive GATE/other scholarships • Research Assistantships to Doctoral students in Engineering & applied sciences disciplines that do not receive any scholarships through NDF / other schemes • Post doctoral fellowships in engineering disciplines. 	

*Note : (1) The approving authority for these activities is BoG / Competent Authority of the institutions except few cases of procurement (including services) where World Bank's No objection required. In addition, institution may also conduct other activities (not listed here) under the scope of the project and those fulfil the objectives of the project with the approval of BoG/Competent Authority of the institution.

(2) Procurement of consultant services, if required, for the activities listed from Sr. No. 2-8 are permitted. The expenditure on procurement of consultant services is to be booked against the head of expenditure of that particular activity. The services of consultants are to be procured by following the World Bank norms and procedures through the PMSS.

⁵² Expenditure is permissible only for the AICTE/UGC approved UG and PG teaching programmes, provided that Goods, Civil Works and Consultancy Services are procured in accordance with the procurement methods and procedures given in the Procurement Manual and are not declared ineligible expenditure by the external Financial Auditors.

⁵³ Expenditure for procurement of any equipment and furniture will not be admissible if procured with co-financing from any other source.

⁵⁴ Expenditure for any Civil Work activity will not be admissible if undertaken with co-financing from any other source.

⁵⁵ The amount of Teaching and Research Assistantships will be governed by the norms as prescribed by the UGC/AICTE or BoG of the institution.

<p>3. Enhancement of Research and Development and Institutional Consultancy Activities</p>	<ul style="list-style-type: none"> • Securing sponsored projects and consultancy assignments. • Publication of research papers in refereed journals. • Commercialization of research products. • Patenting of research products. • Travel cost, hospitality and honorarium paid to expert for participation in Research & Development activities and for delivering expert lectures in the project institutions. • Organizing conferences on R&D topics/themes • Expense on characterization of sample of R&D projects undertaken by students/faculty • Presentation of paper in International Conference etc. by Doctoral students <ul style="list-style-type: none"> ○ Registration fee; travel expenses; boarding, lodging, and sundry expenses/allowances as per norms approved by BoG 	<ul style="list-style-type: none"> • 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>).
	<ul style="list-style-type: none"> • Developing research interest among UG and Masters students: <ul style="list-style-type: none"> ○ Fiscal incentive (as per norms approved by the BoG) to students that voluntarily associate with Industry oriented R&D projects ○ Expenses on travel, boarding and lodging of students that associate with an Industry for about 3-4 weeks during vacations to continue work on R&D projects ○ Consumables 	
	<ul style="list-style-type: none"> • Resource sharing through collaborative arrangements: <ul style="list-style-type: none"> ○ 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 	<ul style="list-style-type: none"> • Any other payment to the faculty for visits to Institutions and industries for joint projects.
	<ul style="list-style-type: none"> • Seed grant for research to faculty members and / or students to venture into innovative research and to strengthen research culture⁵⁶ 	
	<ul style="list-style-type: none"> • Appointment of retired teachers from IITs/NITs/other reputed institutions as Senior Research Advisor for enhancement of Research & Development activities⁵⁷ 	
<p>4. (a) Faculty development for improved competence on subject area <i>(applicable for faculty of engineering & supporting departments)</i></p>	<p>(i) Qualification upgradation:</p> <ul style="list-style-type: none"> • If faculty is enrolled for qualification upgradation either through full-time or part-time or by sandwich joint arrangement other than the parent Institution : <ul style="list-style-type: none"> ○ Fees charged for course work, registration fee etc. ○ Use of research facilities ○ Consumables ○ Expenses towards thesis printing and publication of thesis-based research papers • If faculty is registered for qualification upgradation on full-time or part-time basis within the parent Institution : <ul style="list-style-type: none"> ○ Consumables ○ Expenses towards thesis printing and publication of thesis-based research papers 	<ul style="list-style-type: none"> • Salary, living expenses and travel expenses of faculty registered for qualification upgradation (on full or part time or by sandwich joint arrangement) either within the parent Institution or through deputation to another Institution

⁵⁶ Updated as per Minutes of Review Meeting held on 19 June 2013.

⁵⁷ Updated as per Minutes of 1st JRM held during 18th Feb-1st March 2013.

	<p>(ii) Enhancing knowledge and research competence:</p> <ul style="list-style-type: none"> • Subject upgradation and research competence : Undertaking trainings in subject knowledge and research competence upgradation by faculty as planned through TNA: <ul style="list-style-type: none"> ○ Course fee; travel expenses, boarding and lodging, and sundry expenses/allowances as per applicable norms and rules when faculty is deputed out-station [as per Guidelines on International Travel (Annex-VII)] 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. ○ 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. 	<ul style="list-style-type: none"> • Any other payment to the faculty for attending the Course
	<ul style="list-style-type: none"> • Participation by faculty in seminars, conferences, workshops and Continuing Education Programmes (CEPs)⁵⁸ etc.: <ul style="list-style-type: none"> ○ Registration fee; travel expenses; boarding, lodging, and sundry expenses/allowances as per applicable norms and rules when faculty is deputed outstation [as per Guidelines on International Travel (Annex-VII)] 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 ○ Registration fee; and local travel expenses as per applicable norms and rules when participation is in station but at an Institution other than the employer Institution 	<ul style="list-style-type: none"> • 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
	<ul style="list-style-type: none"> • Organizing subject area training programmes, pedagogical trainings, workshops, seminars, conferences and Continuing Education Programmes (CEPs): <ul style="list-style-type: none"> ○ Hospitality to participants ○ Venue and logistic arrangements ○ Replication of printed training materials ○ Publication of proceedings ○ Travel, boarding and lodging for invited experts and honorarium for delivering/organizing expert lectures, CEPs etc. 	
4 (b) Staff development for improved competence in skills	<ul style="list-style-type: none"> • Training of senior non-teaching staff, administrative and finance officers, etc.: <ul style="list-style-type: none"> ○ 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 	<ul style="list-style-type: none"> • Any other payment to the staff for attending the training programme.

⁵⁸ CEPs are to be targeted for working professionals only. The duration of the programme must be atleast 1 week (5 working days). The participants preferably should have representations from industries, faculty from other AICTE recognized Engineering institutions and few faculty of host institution. The CEP be conducted preferably in cutting edge technologies.

	<ul style="list-style-type: none"> ○ 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 	
	<ul style="list-style-type: none"> ● Training of technical support staff: (applicable for staff of engineering disciplines and supporting departments) <ul style="list-style-type: none"> ○ 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 ○ 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 	<ul style="list-style-type: none"> ● Any other payment to the staff for attending the training programme.
	<ul style="list-style-type: none"> ● Training of administrative and general support staff in functional areas: <ul style="list-style-type: none"> ○ 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 ○ 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 	<ul style="list-style-type: none"> ● Any other payment to the staff for attending the training programme
5. Enhanced interaction with Industry	<ul style="list-style-type: none"> ● Travel cost, hospitality and honorarium to industry personnel for participation in curriculum development / revision / restructuring, student assessment and Institutional bodies, and for delivering expert lectures ● Expenditure for increasing I-I-I through PSAG. ● Expenditure towards inviting industry (excluding travel cost and lodging boarding) for campus interviews and hospitality during campus interviews. ● Arranging tutoring by industry experts to prepare students for on- and off-campus job interviews. ● Organizing short term training programme in collaboration with Industry ● Student attending internship in industry <ul style="list-style-type: none"> ○ Travel expenses, boarding, lodging and sundry expenses / allowances as per norms approved by BoG 	
6. Institutional Management Capacity Enhancement	<ul style="list-style-type: none"> ● Management development training of Institution's senior officials and senior faculty: <ul style="list-style-type: none"> ○ Course fee; travel expenses, boarding and lodging, and sundry expenses/allowances as per applicable norms and rules when deputed out-station [as per Guidelines on International Travel (Annex-VII)] 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. ○ Study Tours; travel expenses, boarding and lodging, and sundry expenses / allowances as per applicable norms and rules when deputed for study tour within India or abroad [as per Guidelines on International Travel (Annex-VII)]. 	<ul style="list-style-type: none"> ● Any other payment to the officials and senior faculty for attending the Course

	<ul style="list-style-type: none"> ○ Trainer's fee and overheads; and sundry expenditure if training programmes organized within the parent Institution. ● Orientation of BoG Members: Travel costs, boarding and lodging expenditure and sitting fee to Board Members; sundry expenses in organizing orientation programme. 	
7. Implementation of Institutional Academic Reforms	<ul style="list-style-type: none"> ● Curricular Reforms: <ul style="list-style-type: none"> ○ Travel cost, hospitality and honorarium paid to industry personnel / academic expert for participation in curriculum development/ revision / restructuring and curricular reforms. ○ Sundry expenditure on holding meetings of the concerned Committees. ○ Organizing workshops on reforms 	
	<ul style="list-style-type: none"> ● Accreditation: <ul style="list-style-type: none"> ○ Accreditation fee to NBA 	<ul style="list-style-type: none"> ● Any payment in cash of kind or expenses related to the hosting of Accreditation Committee or any other assessment committee.
8. Support to students need	<ul style="list-style-type: none"> ● Honorarium to faculty and staff for taking bridge Courses, remedial teaching classes and skill development training ● Honorarium, TA and DA to outside experts for specialized training in soft components including communication - presentation skills. As per norms decided by BoG ● Honorarium, TA and DA to outside experts for specialized training in Finishing School ● Consultancy services procurement for technical assistance related to knowledge/skill enhancement for weak students ● Consultant services for establishing a Finishing School 	<ul style="list-style-type: none"> ● Cost towards the boarding and lodging of students for attending the Finishing School.
9. Incremental Operating Cost	<ul style="list-style-type: none"> ● Organizing BoG and other Committee Meetings. (Travel expenses; boarding, lodging, and sundry expenses/allowances for out-station non-official members as per applicable norms and rules, Local travel expenses for in-station non-official members as per applicable norms and rules, Sitting fee to non-official members) ● TA & DA for faculty and staff attending workshops and Meetings organized by the NPIU and the SPFUs. ● TA & DA for faculty and staff attending training in the World Bank procedures as arranged by the NPIU and the SPFUs. ● Student training materials and other consumables ● Organising Industrial visits, attending workshops, Technology exhibitions, publications in National / International conferences held in India of students UG and PG – Registration Fees, Travelling, boarding & lodging and incidental charges ● Occasional hiring of vehicles for project related works. 	

	<ul style="list-style-type: none"> • Maintenance of furniture and equipment including computers and other assets: <ul style="list-style-type: none"> ○ Maintenance of furniture ○ Maintenance of equipment including computers and related devices through Annual Maintenance Contract 	<ul style="list-style-type: none"> • Maintenance of buildings <i>(this should be carried out through Institution's own budget)</i>
	<ul style="list-style-type: none"> • Hiring technical services for: <ul style="list-style-type: none"> ○ Mentoring ○ External financial auditing for TEQIP funds 	
	<ul style="list-style-type: none"> • Salaries: <ul style="list-style-type: none"> ○ Salaries of additional full-time regular and contract faculty and staff appointed against posts created under the Project, subject to due approval of competent authority of the institution / state 	<ul style="list-style-type: none"> • Salaries to contract faculty and staff appointed against existing vacancies Salaries of Adjunct faculty appointed against existing vacancies <i>(These are to be borne by the Institution)</i>

Table-19 (a)
Permissible⁵⁹ and Non-permissible Expenditures (Indicative)
for Private Unaided Institutions Participating in Sub-component 1.2 : Scaling-up Postgraduate Education and Demand-Driven Research & Development and Innovation

Suggested Activity	Private Unaided Institutions	
	Permitted	Not Permitted
1.Acquiring text books, e-journals and software ⁶⁰ (a) Participation in QEEE programme	<ul style="list-style-type: none"> • Text books • e-journals • software • Hardware component (not exceeding Rs.7-8 Lakhs) <ul style="list-style-type: none"> (a) Mirror Server (b) DTH receiver through the Set Top Box (c) Classroom with projector, speaker, laptop and other facilities (d) Wi-fi access to students (e) Access by students on some tablets/laptops. 	
2. Providing Teaching and Research Assistantships for significantly increasing enrolment in existing and New Masters and Doctoral programmes in engineering & applied science disciplines	<ul style="list-style-type: none"> • Teaching Assistantships⁶¹ for Masters students in Engineering & applied science discipline that do not receive GATE/other scholarships • Research Assistantships to Doctoral students in Engineering & applied sciences disciplines that do not receive any scholarships through NDF / other schemes • Post doctoral fellowships in engineering disciplines 	
3. Enhancement of Research and Development and Institutional Consultancy Activities	<ul style="list-style-type: none"> • Securing sponsored projects and consultancy assignments. • Publication of research papers in refereed journals. • Commercialization of research products. • Patenting of research products. • Travel cost, hospitality and honorarium paid to expert for participation in Research & Development activities and for delivering expert lectures in the project institutions. • Organizing conferences on R&D topics/themes • Expense on characterization of sample of R&D projects undertaken by students/faculty • Presentation of paper in International Seminar, Conference etc. by Doctoral students <ul style="list-style-type: none"> ○ Registration fee; travel expenses; boarding, lodging, and sundry expenses/allowances as per norms approved by BoG 	<ul style="list-style-type: none"> • 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>).
	<ul style="list-style-type: none"> • Developing research interest among UG students: <ul style="list-style-type: none"> ○ Fiscal incentive (as per norms approved by the BoG) to students that voluntarily associate with Industry oriented R&D projects ○ Expenses on travel, boarding and lodging of students that associate with an Industry for about 3-4 weeks during vacations to continue work on R&D projects ○ Consumables 	<ul style="list-style-type: none"> • Boarding and lodging and sundry expenses for spending time in Industry.

Note: (1) Procurement of consultant services, if required, for the activities listed from Sr. No. 2-8 are permitted. The expenditure on procurement of consultant services is to be booked against the head of expenditure of that particular activity. The services of consultants are to be procured by following the World Bank norms and procedures through the PMSS.

⁵⁹ Expenditure is permissible only for the AICTE approved PG teaching programmes, provided that Consultancy Services (including Pedagogical Training) are procured in accordance with the procurement methods and procedures given in the Procurement Manual and are not declared ineligible expenditure by the external Financial Auditors.

⁶⁰ Updated as per Minutes of Review Meeting held on 19 June 2013.

⁶¹ The amount of Teaching and Research Assistantships will be governed by the norms as prescribed by the UGC/AICTE

	<ul style="list-style-type: none"> • Resource sharing through collaborative arrangements: <ul style="list-style-type: none"> ○ 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 	<ul style="list-style-type: none"> • Any other payment to the faculty for visits to Institutions and industries for joint projects.
	<ul style="list-style-type: none"> • Seed grant for research to faculty members and / or students to venture into innovative research and to strengthen research culture⁶² 	
	<ul style="list-style-type: none"> • Appointment of retired teachers from IITs/NITs/other reputed institutions as Senior Research Advisor for enhancement of Research & Development activities⁶³ 	
<p>4. (a) Faculty development for improved competence on subject area (applicable for faculty of engineering & supporting departments)</p>	<p>(i) Qualification upgradation:</p> <ul style="list-style-type: none"> • If faculty is enrolled for qualification upgradation either through full-time or part-time or by sandwich joint arrangement other than the parent Institution : <ul style="list-style-type: none"> ○ Fees charged for course work, registration fee etc. ○ Use of research facilities ○ Consumables ○ Expenses towards thesis printing and publication of thesis-based research papers • If faculty is registered for qualification upgradation on full-time or part-time basis within the parent Institution : <ul style="list-style-type: none"> ○ Consumables ○ Expenses towards thesis printing and publication of thesis-based research papers <p>(ii) Enhancing knowledge and research competence:</p> <ul style="list-style-type: none"> • Subject upgradation and research competence : Undertaking trainings in subject knowledge and research competence upgradation by faculty as planned through TNA: <ul style="list-style-type: none"> ○ Course fee; travel expenses, boarding and lodging, and sundry expenses/allowances as per applicable norms and rules when faculty is deputed out-station [as per Guidelines on International Travel (Annex-VII)] 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. ○ 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. 	<ul style="list-style-type: none"> • Salary, living expenses and travel expenses of faculty registered for qualification upgradation (on full or part time or by sandwich joint arrangement) either within the parent Institution or through deputation to another Institution • Any other payment to the faculty for attending the Course

⁶² Updated as per Minutes of Review Meeting held on 19 June 2013.

⁶³ Updated as per Minutes of 1st JRM held during 18th Feb-1st March 2013.

	<ul style="list-style-type: none"> • Participation by faculty in seminars, conferences, workshops and Continuing Education Programmes (CEPs)⁶⁴ etc.: <ul style="list-style-type: none"> ○ 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) [as per Guidelines on International Travel (Annex-VII) 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 ○ 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 	<ul style="list-style-type: none"> • 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
	<ul style="list-style-type: none"> • Organizing subject area training programmes, pedagogical trainings, workshops, seminars, conferences and Continuing Education Programmes (CEPs): <ul style="list-style-type: none"> ○ Hospitality to participants ○ Venue and logistic arrangements ○ Replication of printed training materials ○ Publication of proceedings ○ Travel, boarding and lodging for invited experts and honorarium for delivering/organizing expert lectures, CEPs etc. 	
4 (b) Staff development for improved competence in skills	<ul style="list-style-type: none"> • Training of senior non-teaching staff, administrative and finance officers, etc. : <ul style="list-style-type: none"> ○ 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 ○ 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 	<ul style="list-style-type: none"> • Any other payment to the staff for attending the training programme.
	<ul style="list-style-type: none"> • Training of technical support staff: (applicable for staff of engineering disciplines and supporting departments) <ul style="list-style-type: none"> ○ 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 ○ 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 	<ul style="list-style-type: none"> • Any other payment to the staff for attending the training programme.
	<ul style="list-style-type: none"> • Training of administrative and general support staff in functional areas: <ul style="list-style-type: none"> ○ 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 	<ul style="list-style-type: none"> • Any other payment to the staff for attending the training programme

⁶⁴ CEPs are to be targeted for working professionals only. The duration of the programme must be atleast 1 week (5 working days). The participants preferably should have representations from industries, faculty from other AICTE recognized Engineering institutions and few faculty of host institution. The CEP be conducted preferably in cutting edge technologies.

	<ul style="list-style-type: none"> o 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 	
5. Enhanced interaction with Industry	<ul style="list-style-type: none"> • Travel cost, hospitality and honorarium to industry personnel for participation in curriculum development / revision / restructuring, student assessment and Institutional bodies, and for delivering expert lectures • Expenditure for increasing I-I-I through PSAG. • Expenditure towards inviting industry (excluding travel cost and lodging boarding) for campus interviews and hospitality during campus interviews. • Arranging tutoring by industry experts to prepare students for on- and off-campus job interviews. • Organizing short term training programme in collaboration with Industry • Student attending internship in industry <ul style="list-style-type: none"> o Travel expenses, boarding, lodging and sundry expenses / allowances as per norms approved by BoG 	
6. Institutional Management Capacity Enhancement	<ul style="list-style-type: none"> • Management development training of Institution's senior officials and senior faculty: <ul style="list-style-type: none"> o Course fee; travel expenses, boarding and lodging, and sundry expenses/allowances as per applicable norms and rules when deputed out-station [as per Guidelines on International Travel (Annex-VII) 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. o Study Tours; 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 o Trainer's fee and overheads; and sundry expenditure if training programmes organized within the parent Institution. • Orientation of BoG Members: Travel costs, boarding and lodging expenditure and sitting fee to Board Members; sundry expenses in organizing orientation programme. 	<ul style="list-style-type: none"> • Any other payment to the officials and senior faculty for attending the Course
7. Implementation of Institutional Academic Reforms	<ul style="list-style-type: none"> • Curricular Reforms: <ul style="list-style-type: none"> o Travel cost, hospitality and honorarium paid to industry personnel / academic expert for participation in curriculum development/ revision / restructuring and curricular reforms. o Sundry expenditure on holding meetings of the concerned Committees. o Organizing workshops on reforms • Accreditation: <ul style="list-style-type: none"> o Accreditation fees to NBA 	<ul style="list-style-type: none"> • Any payment in cash of kind or expenses related to the hosting of Accreditation Committee or any other assessment committee.

<p>8. Support to students need</p>	<ul style="list-style-type: none"> • Honorarium to faculty and staff for taking bridge Courses, remedial teaching classes and skill development training • Honorarium, TA and DA to outside experts for specialized training in soft components including communication - presentation skills. • As per norms decided by BoG • Honorarium, TA and DA to outside experts for specialized training in Finishing School. • Consultancy services procurement for technical assistance related to knowledge/skill enhancement for weak students • Consultant services for establishing a Finishing School 	<ul style="list-style-type: none"> • Cost towards the boarding and lodging of students for attending the Finishing School.
<p>9. Incremental Operating Cost</p>	<ul style="list-style-type: none"> • TA & DA for faculty and staff attending workshops and Meetings organized by the NPIU and the SPFUs. • TA & DA for faculty and staff attending training in the World Bank procedures as arranged by the NPIU and the SPFUs. • Student training materials and other consumables • Organising Industrial visits, attending workshops, Technology exhibitions, publications in National / International conferences held in India of students UG and PG – Registration Fees, Travelling boarding & lodging and incidental charges 	
	<ul style="list-style-type: none"> • Hiring technical services for: <ul style="list-style-type: none"> ○ Mentoring ○ External financial auditing for TEQIP funds 	
	<ul style="list-style-type: none"> • Salaries: <ul style="list-style-type: none"> ○ Salaries of additional full-time regular and contract faculty and staff appointed against posts created under the Project subject to due approval of competent authority of the institution / state 	<ul style="list-style-type: none"> • Salaries to contract faculty and staff appointed against existing vacancies Salaries of Adjunct faculty appointed against existing vacancies (<i>These are to be borne by the Institution</i>)

Table-19 (b)
Permissible⁶⁵ and Non-permissible Expenditures (Indicative)
for Centre of Excellence at Centrally Funded, Government funded and Government aided Institutions⁶⁶ Participating in
Sub-component 1.2.1 : Establishing Centres of Excellence

Suggested Activity*	Centrally Funded, Government Funded and Aided Institutions	
	Permitted	Not Permitted
1. Procurement of goods (equipment, furniture ⁶⁷ , books and learning resources, software and minor items) and civil works for improvement in research and development facilities	<ul style="list-style-type: none"> • New equipment and furniture for laboratories for thematic research 	<ul style="list-style-type: none"> • Equipment and furniture for: <ul style="list-style-type: none"> ○ starting new UG and PG programmes, and ○ improving hostel facilities • Purchase of vehicles
	<ul style="list-style-type: none"> • Establishment of a knowledge resource centre (library): <ul style="list-style-type: none"> ○ Print and digitized Books, e-journals and reference material ○ Electronic equipment for storage and dissemination through web ○ Procurement of furniture 	
	<ul style="list-style-type: none"> • Civil works for: <ul style="list-style-type: none"> ○ refurbishment of existing structures/spaces to create new laboratories for thematic research ○ reducing environment degradation and complying with EMF (see Civil Works Manual) 	<ul style="list-style-type: none"> • Civil works undertaken for betterment of academic buildings such as classrooms; existing laboratories, workshops, computer centres and libraries; constructing new spaces and betterment of hostels
2. Providing Teaching and Research Assistantships ⁶⁸ for enrolment in Masters and Doctoral programmes in topics linked to economic or societal needs in the thematic areas	<ul style="list-style-type: none"> • Teaching Assistantships for Masters students in Engineering & applied sciences discipline that do not receive GATE/other scholarships • Research Assistantships to Doctoral students in Engineering & applied sciences disciplines that do not receive any scholarships through NDF / other schemes • Post doctoral fellowships in engineering disciplines 	
3. Collaboration with Industry for applicable research and product development	<ul style="list-style-type: none"> • Travel expenses; boarding, lodging, and sundry expenses/allowances for faculty visiting Industries within India and abroad to develop and implement joint projects with well defined deliverables • Commercialization of research products. • Patenting of research products 	<ul style="list-style-type: none"> • Any other payment to the faculty for visits to industries for joint projects

*Note : (1) The approving authority for these activities is BoG / Competent Authority of the institutions except few cases of procurement (including services) where World Bank's No Objection required. In addition, institution may also conduct other activities (not listed here) under the scope of the project and those fulfil the objectives of the project with the approval of BoG/Competent Authority of the institution.

(2) Procurement of consultant services, if required, for the activities listed from Sr. No. 2-5 are permitted. Hiring technical services for : Mentoring / guidance for CoE activities, Legal advice and research on market potential of R&D outputs and External financial audit for TEQIP additional funds for CoE. The expenditure on procurement of consultant services is to be booked against the head of expenditure of that particular activity. The services of consultant are to be procured by following the World Bank norms and procedures through the PMSS.

⁶⁵ Expenditure is permissible only for the AICTE/UGC approved UG and PG teaching Programmes, provided that Goods, Civil Works and Consultancy Services are procured in accordance with the procurement methods and procedures given in the Procurement Manual and are not declared ineligible expenditure by the external Financial Auditors.

⁶⁶ The term Aided Institution also includes institutions established and operated under Public-Private-Partnership mode.

⁶⁷ Expenditure for procurement of any equipment and furniture will not be admissible if procured with co-financing from any other source.

⁶⁸ The amount of Teaching and Research Assistantships will be governed by the norms as prescribed by the UGC/AICTE or BoG of the institution.

<p>4. National / International collaboration for Research and Development activities with Academic Institutions and R & D organizations</p>	<ul style="list-style-type: none"> • Securing sponsored projects and consultancy assignments • Publication of research papers in peer reviewed journals • Commercialization of research products • Patenting of research products • Travel cost, hospitality and honorarium paid to consultant for participation in Research & Development and for delivering expert lectures • Travel expenses; boarding, lodging, and sundry expenses / allowances for faculty visiting Institutions within India and abroad to develop and implement joint projects with well defined deliverables • Expense on characterization of sample of R&D projects undertaken by students/faculty • Presentation of paper in International Conference etc. by Doctoral students <ul style="list-style-type: none"> ○ Registration fee; travel expenses; boarding, lodging, and sundry expenses/allowances as per norms approved by BoG 	<ul style="list-style-type: none"> • 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>) • Any other payment to the faculty for visits to Institutions for joint projects
<p>5. Enhancing research competence of faculty and knowledge sharing in thematic areas</p>	<p>Faculty training for enhancement of Research competence in thematic areas:</p> <ul style="list-style-type: none"> • 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 and 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 • 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 <ul style="list-style-type: none"> • Participation by faculty in seminars, conferences, workshops and Continuing Education Programmes (CEPs)⁶⁹ etc.: <ul style="list-style-type: none"> ○ Registration fee; travel expenses; boarding, lodging, and sundry expenses /allowances as per applicable norms and rules when faculty is deputed outstation to another Institution 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 ○ 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 • Organizing thematic area training programmes, workshops, seminars, conferences and Continuing Education Programmes (CEPs): <ul style="list-style-type: none"> ○ Hospitality to participants ○ Venue and logistic arrangements ○ Replication of printed training materials ○ Publication of proceedings ○ Travel, boarding & lodging for invited Experts and also honorarium for delivering expert lectures, CEPs etc. 	<ul style="list-style-type: none"> • Any other payment to the faculty for attending the Course • 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 • TA&DA to participants

⁶⁹ CEP are to be targeted for working professionals only. The duration of the programme must be atleast 1 week (5 working days). The participants preferably should have representations from industries, faculty from other AICTE recognized Engineering institutions and few faculty of host institution. The CEP be conducted preferably in cutting edge technologies.

	<ul style="list-style-type: none"> • Training of technical support staff for skill improvement within India: <ul style="list-style-type: none"> ○ 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 ○ 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 	
	<ul style="list-style-type: none"> • Seed grant to researchers to venture into new directions in the specified theme⁷⁰ 	
6. Incremental Operating Cost	<ul style="list-style-type: none"> • Organizing BoG and other Committee Meetings exclusively for CoE (Travel expenses; boarding, lodging, and sundry expenses/allowances for out-station non-official members as per applicable norms and rules , Local travel expenses for in-station non-official members as per applicable norms and rules, Sitting fee to non-official members) • TA & DA for faculty and staff attending workshops and meetings organized by the NPIU and the SPFUs for CoE activities • Student training materials and other consumables for research scholars from CoE • Organising Industrial visits, attending workshops, Technology exhibitions, publications in National / International conferences held in India of students UG and PG – Registration Fees, Travelling boarding & lodging and incidental charges • Occasional hiring of vehicles for CoE related works 	
	<ul style="list-style-type: none"> • Maintenance of furniture and equipment including computers and other assets acquired under this project for CoE: <ul style="list-style-type: none"> ○ Maintenance of furniture ○ Maintenance of equipment including computers and related devices through Annual Maintenance Contracts. 	<ul style="list-style-type: none"> • Maintenance of buildings and furniture (<i>this should be carried out through Institution's own budget</i>)
	<ul style="list-style-type: none"> • Salaries: <ul style="list-style-type: none"> ○ Salaries of additional full-time regular and contract faculty and staff appointed against posts created for the CoE subject to due approval of competent authority 	<ul style="list-style-type: none"> • Salaries to contract faculty and staff appointed against existing vacancies. • Salaries of Adjunct faculty appointed against existing vacancies (<i>These are to be borne by the Institution</i>)

⁷⁰ Updated as per Minutes of Review Meeting held on 19 June 2013

Table-19 (c)
Permissible⁷¹ and Non-permissible Expenditures (Indicative)
for Centre of Excellence at Private unaided Institutions Participating in Sub-component 1.2.1 : Establishing Centres of Excellence

Suggested Activity	Private unaided Institutions	
	Permitted	Not Permitted
1. Acquiring text books, e-journals and software	<ul style="list-style-type: none"> • Text books • e-journals • software 	
2. Providing Teaching and Research Assistantships for enrolment in Masters and Doctoral programmes in topics linked to economic or societal needs in the thematic areas	<ul style="list-style-type: none"> • Teaching Assistantships⁷² for Masters students in Engineering & applied sciences discipline that do not receive GATE/other scholarships • Research Assistantships to Doctoral students in Engineering & applied sciences disciplines that do not receive any scholarships through NDF / other schemes • Post doctoral fellowships in engineering disciplines 	
3. Collaboration with Industry for applicable research and product development	<ul style="list-style-type: none"> • Travel expenses; boarding, lodging, and sundry expenses/allowances for faculty visiting Industries to develop and implement joint projects with well defined deliverables • Commercialization of research products. • Patenting of research products 	<ul style="list-style-type: none"> • Any other payment to the faculty for visits to industries for joint projects
4. National / International collaboration for Research and Development activities with Academic Institutions and R & D organizations	<ul style="list-style-type: none"> • Securing sponsored projects and consultancy assignments • Publication of research papers in peer reviewed journals • Commercialization of research products. • Patenting of research products • Travel cost, hospitality and honorarium paid to consultant for participation in Research & Development and for delivering expert lectures • Travel expenses; boarding, lodging, and sundry expenses/allowances for faculty visiting Institutions within India and abroad to develop and implement joint projects with well defined deliverables • Expense on characterization of sample of R&D projects undertaken by students/faculty • Presentation of paper in International Seminar, Conference etc. by Doctoral students <ul style="list-style-type: none"> ○ Registration fee; travel expenses; boarding, lodging, and sundry expenses/allowances as per norms approved by BoG 	<ul style="list-style-type: none"> • 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>) • Any other payment to the faculty for visits to Institutions for joint projects

Note: Procurement of consultant services, if required, for the activities listed from Sr. No. 1-4 are permitted. Hiring technical services for : Mentoring / guidance for CoE activities, Legal advice and research on market potential of R&D outputs and External financial audit for TEQIP additional funds for CoE. The expenditure on procurement of consultant services is to be booked against the head of expenditure of that particular activity. The services of consultant are to be procured by following the World Bank norms and procedures through the PMSS.

⁷¹ Expenditure is permissible only for the AICTE approved PG teaching Programmes, provided that Consultancy Services (including Pedagogical Training) are procured in accordance with the procurement methods and procedures given in the Procurement Manual and are not declared ineligible expenditure by the external Financial Auditors.

⁷² The amount of Teaching and Research Assistantships will be governed by the norms as prescribed by the UGC/AICTE.

5. Enhancing research competence of faculty and knowledge sharing in thematic areas	<p>Faculty training for enhancement of Research competence in thematic areas:</p> <ul style="list-style-type: none"> • 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 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 • 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 	<ul style="list-style-type: none"> • Any other payment to the faculty for attending the Course
	<ul style="list-style-type: none"> • Participation by faculty in seminars, conferences, workshops and Continuing Education Programmes (CEPs)⁷³ etc.: <ul style="list-style-type: none"> ○ 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 and 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 ○ 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 	<ul style="list-style-type: none"> • 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
	<ul style="list-style-type: none"> • Organizing thematic area training programmes, workshops, seminars, conferences and Continuing Education Programmes (CEPs): <ul style="list-style-type: none"> ○ Hospitality to participants ○ Venue and logistic arrangements ○ Replication of printed training materials ○ Publication of proceedings ○ Travel, boarding & lodging for invited Experts and also honorarium for delivering expert lectures, CEPs etc. 	<ul style="list-style-type: none"> • TA&DA to participants
	<ul style="list-style-type: none"> • Training of technical support staff for skill improvement within India: <ul style="list-style-type: none"> ○ 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 	<ul style="list-style-type: none"> •

⁷³ CEPs are to be targeted for working professionals only. The duration of the programme must be atleast 1 week (5 working days). The participants preferably should have representations from industries, faculty from other AICTE recognized Engineering institutions and few faculty of host institution. The CEP be conducted preferably in cutting edge technologies.

	<ul style="list-style-type: none"> • 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 	
	<ul style="list-style-type: none"> • Seed grant to researchers to venture into new directions within the specified theme⁷⁴ 	
6. Incremental Operating Cost	<ul style="list-style-type: none"> • Organizing BoG and other Committee Meetings exclusively for CoE (Travel expenses; boarding, lodging, and sundry expenses/allowances for out-station non-official members as per applicable norms and rules , Local travel expenses for in-station non-official members as per applicable norms and rules, Sitting fee to non-official members) • TA & DA for faculty and staff attending workshops and meetings organized by the NPIU and the SPFUs for CoE activities • Student training materials and other consumables for research scholars from CoE • Organising Industrial visits, attending workshops, Technology exhibitions, publications in National / International conferences held in India of students UG and PG – Registration Fees, Travelling boarding & lodging and incidental charges • Occasional hiring of vehicles for CoE related works 	
	<ul style="list-style-type: none"> • Salaries: <ul style="list-style-type: none"> ○ Salaries of additional full-time regular and contract faculty and staff appointed against posts created for the CoE subject to due approval of competent authority 	<ul style="list-style-type: none"> • Salaries to contract faculty and staff appointed against existing vacancies. • Salaries of Adjunct faculty appointed against existing vacancies (<i>These are to be borne by the Institution</i>)

⁷⁴ Updated as per Minutes of Review Meeting held on 19 June 2013

Table-20
Permissible⁷⁵ and Non-permissible Expenditures (Indicative)
for the National Project Implementation Unit (NPIU)

Suggested Activity	Permitted	Not Permitted
1. Procurement of equipment and furniture	<ul style="list-style-type: none"> All equipment and furniture required for an efficient and modern offices of the NPIU and National Project Directorate at MHRD 	-----
2. Training of senior and support staff of the NPIU in functional areas	<ul style="list-style-type: none"> Course fee; travel expenses; boarding, lodging, and sundry expenses / allowances as per applicable norms and rules when the NPIU staff is deputed outstation to another Institution / Organization within India and travel time 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 	<ul style="list-style-type: none"> Any other payment to the NPIU staff for attending the training programme
3. Meetings of various Committees (CIHEC, NSC, NEC, Pedagogy Curriculum Development, Working Groups, PIP formulation etc.)	<ul style="list-style-type: none"> Travel expenses; boarding, lodging, and sundry expenses/allowances for out-station non-official members as per applicable norms and rules Local travel expenses for in-station non-official members as per applicable norms and rules Operational cost Printing cost Honorarium to the members attending meetings 	
4. Pedagogical trainings through IITs (Quality Circles)	<ul style="list-style-type: none"> Organizing Quality Circle workshops at IITs. Organizing various activities under KIT Teaching workshops in specific cluster of resources Short-courses and workshops in niche areas Seminars/Conference Short-term visit of graduates students from TEQIP institutions Sabbatical/long-leave stay to teachers and researchers from TEQIP institutions 	<ul style="list-style-type: none"> TA/DA to the participants
5. Capacity Enhancement activities	<ul style="list-style-type: none"> Establishing Management Capacity Development Centres at IIMs for TEQIP Institutions <ul style="list-style-type: none"> Operational cost for organizing Management Capacity Development Programmes for Policy Planners and Senior Administrators at the National and State levels including senior officials of the MHRD/NPIU and the SPFUs 	

⁷⁵ 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.

	<ul style="list-style-type: none"> - Travel, boarding, lodging and sundry expenditure for the duration of the programme and travel time for National level Policy Planners and implementers, and officials of the MHRD/NPIU 	
	<ul style="list-style-type: none"> • Professional Training Programmes: <ul style="list-style-type: none"> ○ Operational cost for organizing thematic training programmes for policy planners and senior administrators at the National and State levels including senior officials of the MHRD/NPIU and the SPFUs ○ 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 the NPIU and the MHRD 	
<p>6. Organizing regional workshops each year for sharing good academic and governance practices and innovations</p>	<ul style="list-style-type: none"> • Operational expenditure for organizing and hosting workshops • 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 • Local travel expenses for invited non-official local experts from academia and Industry as per applicable norms and rules 	<ul style="list-style-type: none"> • TA & DA to members of PSAG, officials of Industry Associations, other officials and representatives from the SPFUs and project and non-project institutions
<p>7. Incremental Operating Cost</p>	<ul style="list-style-type: none"> • Orientation meetings for Evaluation Committee Members and Mentors, Performance, Technical and Fiduciary Auditors • Conduct of meetings with World Bank, States and other organizations for review of project implementation • Training and orientation workshops for SPFU officials, institutional faculty and staff • Conduct of all review and implementation support missions • Consultation Meetings • Expenditure on participation of NPIU staff in meetings, workshops, etc.: <ul style="list-style-type: none"> ○ Travel expenses; boarding, lodging, and sundry expenses/allowances as per applicable norms and rules and travel time ○ Local travel expenses as per applicable norms and rules when participation is within-station but at a place other than 	

	<p>the office</p> <ul style="list-style-type: none"> • Post-procurement audits of CFIs • Contract fee for outsourced services • Rental of office space • Maintenance of the NPIU's website • Hiring of vehicles for project related work only at NPIU and at National Project Directorate at MHRD • Office operation including stationery, printing of various documents, postage, electronic communication, advertising, telephone, electricity, water, TA&DA, purchase of books & LR, bank charges etc. • Printing of Project Implementation Plan (PIP). • Staff welfare expenses. 	
	<ul style="list-style-type: none"> • Consultancy Services engaged for technical assistance related to: <ul style="list-style-type: none"> ○ MIS, PMSS and e-FMR ○ handholding of New States ○ studies and surveys ○ development and web-hosting of annual Training Calendar for faculty ○ mentoring ○ performance and technical auditing ○ external financial auditing • Other tasks 	
	<ul style="list-style-type: none"> • Maintenance of infrastructural facilities: <ul style="list-style-type: none"> ○ Maintenance of office vehicle and furniture ○ Maintenance of equipment including computers and related devices through Annual Maintenance Contracts 	
	<ul style="list-style-type: none"> • Salaries: <ul style="list-style-type: none"> ○ Salaries of full-time regular and contract officials and staff at NPIU and MHRD against posts created under the Project 	

Table-21
Permissible⁷⁶ and Non-permissible Expenditures (Indicative)
for the State Project Facilitation Units (SPFUs)

Suggested Activity	Permitted	Not Permitted
1. Procurement of civil works	<ul style="list-style-type: none"> Refurbishment of office building 	-----
2. Procurement of equipment and furniture	<ul style="list-style-type: none"> All equipment and furniture required for an efficient and modern SPFU office 	<ul style="list-style-type: none"> Purchase of vehicles
3. Training of senior and support staff of the SPFU in functional areas	<ul style="list-style-type: none"> Course fee; travel expenses; boarding, lodging, and sundry expenses / allowances as per applicable norms and rules when the SPFU staff is deputed outstation to another Institution/ Organization within India 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 	<ul style="list-style-type: none"> Any other payment to the SPFU staff for attending the training programme
4. Meetings of State Steering Committee (SSC)	<ul style="list-style-type: none"> Travel expenses; boarding, lodging, and sundry expenses/allowances for out-station non-official members as per applicable norms and rules Local travel expenses for in-station non-official members as per applicable norms and rules Sitting fee to non-official members Operational cost 	
5. State Private Sector Advisory Group (optional)	<ul style="list-style-type: none"> Travel expenses; boarding, lodging, and sundry expenses/allowances for out-station members as per applicable norms and rules Local travel expenses for in-station non-official members as per applicable norms and rules Salaries of support staff in State-PSAG Secretariat (hosted by either CII or FICCI) after one year experience of PSAG functioning Operational cost of State-PSAG Meetings 	<ul style="list-style-type: none"> Sitting fee for State-PSAG Members Rental for State-PSAG Secretariat office Salaries of support staff in State-PSAG Secretariat during the First Year of the Project State-PSAG Meeting venue rental
6. Incremental Operating Cost	<ul style="list-style-type: none"> Workshops for training Institutions in the preparation of Eligibility and Development Proposals Joint Review Missions Training programmes for faculty and staff from Institutions Orientation meetings for mentors, performance, technical and fiduciary auditors Field visits to Institutions for monitoring project implementation. Consultation meetings Post-procurement audits of project institutions. Maintenance of the SPFU's website. Contract fee for outsourced services. 	

⁷⁶ Expenditure is permissible only for Goods, Civil Works and Consultant Services that are procured in accordance with the procurement methods and procedures given in the Procurement Manual and through PMSS. Total expenditure on Procurement of Goods and Civil Works should be limited to maximum of 25% of the SPFUs allocation.

	<ul style="list-style-type: none"> • Hiring of vehicles for project related work • Office operation including stationery, printing of various documents, postage, electronic communication, advertising, telephone, TA&DA, etc • Expenditure on participation of staff in meetings, workshops, etc. related to the Project <ul style="list-style-type: none"> ○ Travel expenses; boarding, lodging, and sundry expenses/ allowances as per applicable norms and rules and travel time ○ Local travel expenses as per applicable norms and rules when participation is within-station but at a place other than the office 	
	<ul style="list-style-type: none"> • Consultancy services engaged for technical assistance related to: <ul style="list-style-type: none"> ○ Experts to guide Institutions carry out quality SWOT and TNA ○ Experts for helping State institutions prepare proposals and implement institutional projects (permitted for new States only) ○ Experts for helping / guiding Institutions to implement EAP and EMF ○ Studies and surveys, if any ○ Performance and technical auditing ○ Post-procurement audits of Institutions ○ External financial auditing for TEQIP funds ○ Other tasks 	<ul style="list-style-type: none"> • Hiring of Experts to help Institutions prepare Proposals and implement Institutional projects (not permitted for old States)
	<ul style="list-style-type: none"> • Maintenance of Infrastructure facilities: <ul style="list-style-type: none"> ○ Maintenance of office building and furniture ○ Maintenance of equipment including computers and related devices through Annual Maintenance Contracts 	
	<ul style="list-style-type: none"> • Salaries: Salaries of full-time regular and contract officials and staff against posts created under the Project subject to due approval of state competent authority 	
<p>7. In-house Pedagogical Training of faculty from Engineering disciplines and supporting departments of Project Government funded and aided Institutions under Sub-component 1.1 and 1.2</p>	<ul style="list-style-type: none"> • Full fee (training cost + overheads towards travel, boarding, lodging, travel, training materials, etc.) charged by the Training Provider selected by the SPFU by following the World Bank norms. 	<ul style="list-style-type: none"> • Any payment to the faculty for attending the training programme

<p>8. In-house Pedagogical Training of faculty from Engineering disciplines and supporting departments of Project Private unaided Institutions under Sub-component 1.1 and 1.2</p>	<ul style="list-style-type: none">• Training fee charged by the Training Provider selected by the SPFU by following the World Bank norms.	<ul style="list-style-type: none">• Expenditure towards travel, boarding, lodging, training materials, etc. for training provider.• Rental for training venue, if any.• Any payment to the faculty for attending the training programme
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Section-8 PROCUREMENT MANAGEMENT

8.1 Procurement Guidelines:

Procurement of all Goods and Works under the Project are to 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 guidelines should be strictly followed to avoid penalties.

8.2 Procurement Arrangements:

Project institutions must form separate (i) Goods Procurement Committee and (ii) Building & Works Committee to manage all Institutional procurement activities for Goods and Works. The Committees will need to seek approval from, and will function under the supervision of the BoG. 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 to capture end-to-end procurement process, generate standard bidding documents (SBDs), Bid Evaluation Report (BER), Purchase order (PO), identify contract milestones like warranty period, performance guarantee, delivery schedule etc and meet documentation / report requirements of all project entities. PMSS will help the procurement activities by reducing time, standardizing the processes followed, ensuring transparency, improved monitoring, support decision-making and compliance with the Procurement guidelines.

The Centrally Funded, Government funded and Government aided Institutions are required to note that, "the procurement of goods is to be done strictly amongst the activities which are detailed-out in Section 2, 3, 6 and 7 under the "Improvement in Teaching, Training and Learning facilities", as required and justified by institutions to fulfil the project objectives.

Procurement of consultant services, if required, for the activities at S.No.2-8 listed in Table No. 18, Sr.No.2-8 in Table-18 (a), Sr. No.2-8 in Table-19, Sr. No.2-8 in Table-19 (a), Sr. No.2-5 in Table-19 (b) and Sr. No.1-4 in Table-19 (c) are permitted. The expenditure on procurement of consultant services is to be booked against that particular activity. The services of consultants are to be procured by following the World Bank norms and procedures and through the PMSS.

8.4 Procurement Manual:

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

The Procurement Manual is intended to guide the implementation agencies to understand the procedures to be followed for procurement (for details refer Appendix-II) and to also ensure compliance with the agreed procedures.

8.5 Institutional Procurement Plan:

A Procurement Plan needs to 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, Works, and Consultant Services required for the whole of the Project life.

Institutions are required to submit a Procurement Plan along with the Institutional Development Proposal in the prescribed formats (Table-22 and 23).

Revision / updation of Procurement Plan: Once the submitted Procurement Plan is reviewed by BoG of the Institution and given a "no objection", subsequent changes / revision / modification can be done at institution level with the approval of respective BoGs. The Procurement Plan can be revised / updated as required to reflect the actual project implementation needs and improvements but within framework of the World Bank guidelines.

8.6 Procurement of Goods:

The Procurement of Goods by the Government and Government aided project institutions will be in four categories: equipment, furniture, books & learning resources and minor items.

8.7 Procurement of Works:

The Project does not envisage large scale civil works but makes provisions to meet the essential requirements for acquiring excellence. Civil works in project institutions include (i) repair works (ii) refurbishment works and (iii) extension of existing buildings.

The Civil Works Manual (see Appendix-III) developed for the Project, describes the types of civil works to be undertaken in the Project, and provides guidance for understanding of the procedures to be followed for each type of works. The Manual also provides guidance on the various environmental aspects that need to be integrated into the design and construction of civil works.

8.8 Selection and Employment of Consultants/Services:

The project institutions, for specialised requirements, can avail support and services of Consultants to achieve Institution's goal. 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 guidelines should be strictly followed to avoid penalties.

8.9 Procurement Audits:

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

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 (in the reporting format given in Procurement Manual) along with remedial actions taken to make improvement for the deviations noticed.

Table-22
Procurement Plan for Works and Goods*

Name of the Institution with location: -----

Package No.	S. No.	Activities	Description of Works/ Goods	Estimated Cost (Rs)	Method of Procurement	Design/ Investigation Completion/ Specification Finalization (Date)	Estimate Sanctioned (Date and Value)	Preparation of Bid Document (Date)	Date of Receipt of Bank's No Objection to Bidding Document**	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)	(14)

* Goods cover Equipment, Furniture and Books & Learning Resources

** Applicable in case of 'Prior Review' by the World Bank.

Note: For Column 6, state ICB/NCB/Direct Contracting/Shopping method as appropriate

Table-23
Procurement Plan for Consultant Services

Name of the Institution with location: -----

Sl No	Activities	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 the 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)	(1)

@ State whether (i) Single firm or individual; or (ii) Competitive procedure. If Competitive, then state whether Quality & Cost Based Selection (QCBS) or Least Cost Selection procedure, etc.

◆ RFP (Request for Proposal): Same as 'Bid Document'

** Applicable in case of 'Prior Review' by the World Bank

Section-9 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:

Every institution faces a different challenge to improve academic performance. In addition to the caliber of students in an institution, its management, teaching force, and actions to remedy students' difficulties have a bearing on student performance. The Project institutions are to make Action Plans to improve learning outcomes for students and employability of graduates. They are required to allocate budget every year to Academic Support for Weak Students. The project aims to ensure that all participating institutions improve the transition rate of First Year (enrolled) students to the Second Year (a key performance indicator of the project). Institutional targets are set for all students as well as SC, ST, OBC and Women students. Achievement must be maintained during subsequent years so that high qualification rates are achieved by every institution.

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

9.4 Activities of Equity Action Plan for Improving Academic Performance of weak students through innovative methods:

'Weak' students may be those who fail more than 40 or 50 percent of their subjects in a given year, lose a year or more during their degree programme, or get low marks. Some students may fail to secure employment at the end of their degree programme because of overall low performance or inadequate skills at the completion of the course. Some of the reasons for these weaknesses are: low entry level marks (i.e., inadequate preparedness for the rigorous engineering curriculum), irregular attendance of classes, lack of self-confidence, low proficiency in the medium of instruction (English) or even in the main vernacular language. Very often weak students do not communicate their difficulties and do not seek help.

The participating institutions must ensure that all students perform well academically and achieve their post-college goals i.e. securing good jobs or entering post-graduate courses, according to their choice, suited to their capabilities, and in line with the education they have received. Institutions must also ensure that all the faculty be trained in Pedagogy particularly to improve the performance of weak students.

Some possible interventions to improve the performance of weak students are given below:

- (i) **Diagnosing Student Weaknesses and Tracking Performance.** A diagnostic test when students enter the college can supplement knowledge of their entry marks. Properly devised tests provide information about specific areas where a student is weak, and therefore what additional coaching is required. They can identify which topics need to be emphasized by the subject teacher for the student group. Such tests can be particularly helpful before 'tough' subjects begin each semester, and efforts made to strengthen teaching, and/or provide extra teaching. Reviewing student attendance in connection with performance and advising students to attend classes and make up missed classes is also useful.
- (ii) **Improving Performance in Academic Subjects.** To help students deal with specific academic weaknesses, **remedial classes** either during the semester or during vacations is helpful. Another approach is to provide a slot or period when no classes are held but **teachers** are available to help students address their weaknesses. Extra inputs could also be provided in more innovative ways such as: **tutorial classes** where students interact with each other and also with a faculty / PG student. A 'Academic Support Programme' could also be organized. Such programme provides extra classes, notes and guidance where teachers are available to students formally and informally.

- (iii) **Enhancing English and Communication and Presentation Skills.** This could include English language labs, tutorials for technical and everyday English, opportunities to make presentations in the classroom, etc. Language and soft-skills development should be provided throughout the degree programme and not only in the final semesters in preparation for job interviews. Interactive and confidence-building programmes can be successful.
- (iv) **Peer Learning Groups.** Peer learning groups help students as they find that others have similar problems, and get a chance to discuss their academic difficulties. Students often like to study in groups, and forming groups of 10-12 good and weak mixed students can be effective. They can revise lessons and undertake group projects also. Good students can help weak ones – the act of tutoring also helps good students. There can be ‘vertical’ integration, i.e., senior students with juniors and student-faculty interactions can be enhanced with faculty being available as resource persons to the student groups and interacting informally with them.
- (v) **Appointing Faculty Advisers for Students.** A Faculty Adviser (FA) can be appointed for every 10-15 students entering in the first year and establish a close relationship with these students, orienting them to college practices and following their progress regularly (e.g., through fortnightly or monthly meetings). Students in all four years may need this guidance as different problems develop at different times. The relationship can be more informal than formal, allowing students to ask for help when they need it and share their problems without fear. The FA can find out any non-academic reasons for a student’s weak or declining performance, and advise on appropriate study or other measures to be taken. The FA can also mediate between a student and other faculty, if necessary, or seek help from an HOD, Dean, Principal, etc., and get in touch with parents when necessary. Faculty may be given some professional training in mentoring and counseling to play this role.

Table-24 gives the details of Equity Action Plan for the students and faculty under the project.

Table-24
Details of Equity Action Plan

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) and other measures to bring all students to the required level of proficiency to cope with the main subjects	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 courses passed
(ii)	Institution to improve communication-presentation skills through their wide use in curricula 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 Faculty Development Plan how they would build equity to upgrade faculty qualifications	Project institutions and SPFUs	Yearly	Increase in the percentage of teachers enrolled in MTech reported yearly

S. No	Items	Actions	Implementation Agency	Frequency	Monitoring Indicators
(iv)	Training of teachers in subject matter and pedagogy, particularly to improve the performance of weak students	Training Needs Analysis (TNA) to be carried out for all teachers in all project institutions by appropriately qualified/trained experts, especially to teach weak students	Project institutions and SPFUs	TNA to be done before the preparation of Institutional Development Proposals; reporting every six months and remedial actions on a continuous basis	Percent of planned training completed as reported/ aggregated 6 monthly
		All institutions to prepare Faculty Development Plan for the 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 including teaching of weak students	Project institutions and SPFUs		
		Domain training is to be done on the basis of need	Project institutions and SPFUs		
		Institutions to report to the 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 the SPFUs to send aggregated reports to the NPIU			
		Training providers to furnish training evaluation results (which indicate the extent to which the gaps in a trainee's knowledge or skills including teaching of weak students have been addressed) to Institutions and the SPFUs	Project institutions and SPFUs		
		In addition the Project would carry out Satisfaction Surveys to assess training achievements	Project institutions and SPFUs		
(v)	Make campuses physically and socially gender-friendly; especially provide adequate and suitable facilities to women students and faculty	Institutions to specify in their IDPs what actions they would take to ensure a gender--friendly campus--both 'soft' actions, and civil works where necessary	Project institutions	At the time of IDP 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	The SPFUs and Institutions to organize workshops with thematic focus	SPFUs / Groups of 3 project institutions	Yearly	

Section-10

ENVIRONMENT MANAGEMENT FRAMEWORK

10.1 Objective:

To ensure compliance with Environment Management Framework (EMF) in all project institutions.

10.2 Scope:

All project institutions will be responsible for ensuring adherence to the Environment Management Framework (EMF).

10.3 Strategy:

The NPIU and the SPFUs will frequently monitor compliance with the Environment Management Framework (EMF) in all project institutions and ensure implementation of corrective actions, as may be required.

10.4 Environment Management Framework:

The EMF seeks to reduce environmental degradation that may arise due to project activities and to also help in compliance with various related 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, signages 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, EMF will also encourage 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 colours for buildings and walkways, use of locally available materials, etc. for all works undertaken in the Project. The expenditure for all such activities can be booked under the head of expenditure "Minor Civil Works" in the institution.

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-11
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:

The NPIU, the SPFU and the project Institutions will be responsible to ensure adherence to Disclosure Management Framework.

11.3 Strategy:

The NPIU, the SPFUs and the 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 respective websites.

11.4 Activities of Disclosure Management Framework:

The following table gives in brief the mechanism for Disclosure Management:

Table-25(a)
Disclosure Management by the National Project Implementation Unit

S. No	Field	Action	Frequency
1	Selection of States, Institutions, and monitoring implementation of the Project	The Minutes of all NSC meetings on selection and other matters will be published on the NPIU's website. Summary of Evaluation Reports of all Institutions and all details regarding the Project including all announcements / documents etc will be sent by email	As and when occurs
2	Accountability on project achievements	<ul style="list-style-type: none"> ▪ Performance and data audits: ▪ The following documents would be put on the NPIU's website <ul style="list-style-type: none"> a) Performance and Data Audit Reports. b) Student/Faculty satisfaction surveys c) Employer satisfaction survey 	Twice annually
3	Financial Management Progress in use of Funds and submission of timely reports for monitoring, facilitation and accounting purposes	<ul style="list-style-type: none"> ▪ The NPIU will organize workshops to train officials from the project institutions and SPFU officials. ▪ Financial Management Manual has been prepared and made available on the NPIU's Website for guidance of the SPFUs and project institutions ▪ Quarterly Financial Monitoring Report ▪ Consolidated Audit Certificate 	<ul style="list-style-type: none"> ▪ Initially cover all States and all Institutions in span of 3 months and will conduct workshops once in 6 months ▪ Quarterly ▪ Yearly
4	Procurement Management Transparency and accountability in procurement in conformity to the World Bank Guidelines	<ul style="list-style-type: none"> ▪ Procurement Manual has been prepared and made available on the NPIU's Website for guidance of Institutions. In addition, the NPIU will organize workshops to train officials from the project institutions and the SPFUs ▪ All data related to procurement made by Institutions will be maintained through PMSS. ▪ Making of the following information publicly available on the website of the NPIU: <ul style="list-style-type: none"> ➤ All general and specific procurement notices, notices inviting tenders expressions of interest, request for proposals, NCB documents and agenda/corrigenda to bids, information on bids received, and details of contracts awarded ➤ Project Review and Mid-Term Review reports 	<ul style="list-style-type: none"> ▪ Initially cover all States and all Institutions in a span of 3 months ▪ Will conduct workshops once in 6 months ▪ Continuous <ul style="list-style-type: none"> ➤ To be implemented from project effectiveness ➤ After each Joint Review Mission and Mid-Term Review Mission
5	Complaint Mechanism	<ul style="list-style-type: none"> ▪ Handling complaints relating to procurement, fraud and corruption and quality of construction in accordance with GoI and participating States administrative procedures ▪ A procurement complaints monitoring database shall be maintained ▪ Submitting yearly reports to the World Bank 	<ul style="list-style-type: none"> ▪ To be implemented from project effectiveness ▪ To be implemented from project effectiveness ▪ Within 30 days of the end of the year

Table-25(b)
Disclosure Management by the State Project Facilitation Units

S. No.	Field	Action	Frequency
1	Monitoring implementation of the Project	The minutes of State Steering Committee meetings will also be published on the SPFU's website.	As and when occurs
2	Equity Action Plan To ensure that all students and faculty have equal opportunity to avail the benefits of the Project and to improve performance of weak students which includes SC/ST/OBC and academically weak students	Ensuring compliance with requirements of EAP in the project Institution.	To be implemented from project effectiveness
3	Financial Management Progress in use of Funds and submission of timely reports for monitoring, facilitation and accounting purposes	<ul style="list-style-type: none"> ▪ Quarterly Financial Monitoring Report ▪ Consolidated Audit Certificate of the SPFU and all project institutions in the State 	<ul style="list-style-type: none"> ▪ Quarterly ▪ Yearly
4	Procurement Management Transparency and accountability in procurement in conformity to the World Bank Guidelines	<ul style="list-style-type: none"> ▪ All data related to procurement made by Institutions will be maintained through PMSS. ▪ Making of the following information publicly available on the website of SPFUs: <ul style="list-style-type: none"> ➤ 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 ➤ All general and specific procurement notices, notices inviting tenders expressions of interest, request for proposals, NCB documents and agenda/corrigenda to bids. ➤ All information on bids received, and details of contracts awarded for NCB 	<p>Continuous</p> <ul style="list-style-type: none"> ➤ To be implemented from project effectiveness ➤ To be implemented from project effectiveness ➤ To be implemented from project effectiveness
5	Complaint Mechanism	<ul style="list-style-type: none"> ▪ Handling complaints relating to procurement, fraud and corruption and quality of construction in accordance with GoI and participating States administrative procedures ▪ A procurement complaints monitoring database shall be maintained ▪ Submitting yearly reports to the NPIU 	<ul style="list-style-type: none"> ▪ To be implemented from project effectiveness ▪ To be implemented from project effectiveness ▪ Within 30 days of the end of the year
6	Environmental Management Framework (EMF) To Create awareness among Institutions to take actions related to Environment Management	Ensuring compliance with requirements of EMF given the in Civil Works Manual undertaken in the project Institutions.	To be implemented from project effectiveness

Table-25(c)
Disclosure Management by the Project Institutions

S. No.	Field	Action	Frequency
1	Accountability on project achievements	Minutes of the BoGs meetings at the Institution would be put on Institution's website.	As and when occurs
2	Equity Action Plan To ensure that all students and faculty have equal opportunity to avail the benefits of the Project and to improve performance of weak students which includes SC/ST/OBC and academically weak students	Ensuring compliance with requirements of EAP in the project Institution.	To be implemented from project effectiveness
3	Financial Management Progress in use of Funds and submission of timely reports for monitoring, facilitation and accounting purposes	Quarterly Financial Monitoring Report	Quarterly
4	Procurement Management Transparency and accountability in procurement in conformity to the World Bank Guidelines	<ul style="list-style-type: none"> ▪ All data related to procurement made by Institutions will be maintained through PMSS. ▪ Making of the following information publicly available on the website of respective Project Institutions: <ul style="list-style-type: none"> ➤ 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 ➤ All general and specific procurement notices, notices inviting tenders expressions of interest, request for proposals, NCB documents and agenda/corrigenda to bids. ➤ All information on bids received, and details of contracts awarded for NCB 	<ul style="list-style-type: none"> ▪ Continuous <ul style="list-style-type: none"> ➤ To be implemented from project effectiveness ➤ To be implemented from project effectiveness ➤ To be implemented from project effectiveness
5	Complaint Mechanism	<ul style="list-style-type: none"> ▪ Handling complaints relating to procurement, fraud and corruption and quality of construction in accordance with GoI and participating States administrative procedures ▪ A procurement complaints monitoring database shall be maintained ▪ Submitting yearly reports to the SPFU 	<ul style="list-style-type: none"> ▪ To be implemented from project effectiveness ▪ To be implemented from project effectiveness ▪ Within 30 days of the end of the year
6	Environmental Management Framework (EMF) To Create awareness among Institutions to take actions related to Environment Management	Ensuring compliance with requirements of EMF given in the Civil Works Manual undertaken in the project Institutions	To be implemented from project effectiveness

ANNEXES

GUIDELINES ON IMPLEMENTATION OF REFORMS

1. Exercise of autonomies:

Autonomous Institutions under a University will be able to exercise full academic autonomy except for the award of degrees, which will continue to be conferred by the University. All institutions are required to have a Board of Governors. All powers for institutional management through exercise of the 4 autonomies is to be vested in the BoG and will be exercised as per the Memorandum of Association (MoA)/Government Orders/Government Regulations. The BoG will in turn suitably delegate functional powers to various institutional functionaries and committees.

Brief description of autonomies is as follows:

(i) Managerial Autonomy:

- a) 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 and procedures 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 Head of Institution 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 procedures for exercise of its powers as per the MoA/Government Orders/Regulations;
 - delegate the financial powers to various levels of functionaries for efficient discharge of their functions;
 - delegate financial and administrative powers to the faculty concerned for operating R&D projects, consultancies, continuing education programmes, organising conferences/seminars, etc.; and
 - 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 (faculty, staff, students, parents of students, industry, etc.) in the decision making process.

(ii) Administrative Autonomy:

- a) All actions of the Director in connection with continuing education programmes, faculty consultancy, faculty development programmes, Industrial consultancy, organisation of seminars and conferences should be reported to the BoG.
- b) On the recommendation of the Head of the Department, the Director will approve the deputation of faculty to attend seminars, conferences, and training programmes. BoG will need to evolve the norms for the same.
- c) It is suggested that Directors may delegate some of his/her administrative powers to the Deans, Heads of Department and Professors.

(iii) Financial Autonomy:

- a) For day-to-day functioning adequate financial powers to the Director and other functionaries are to be delegated by the BoG. The financial powers to be delegated are suggested as under:
 - Director or Principal of an institution or Dean of a University institutions/ Head of University Faculty/ Department--- Rs. 50.00 lakh for single purchase order.
 - Head of the Department or equivalent--- Rs.1.00 lakh for single purchase order.
 - All single item expenditure above Rs. 50.00 lakh will need to be approved by the BoG. Similarly, all single item expenditure above Rs.1.00 lakh by a Head of the Department will need approval from the Director/Principal/Dean.

- b) Re-appropriation of the project fund allocation for any academic activity may be done by the institution with concurrence of the BoG subject to following conditions in sub-categories of expenditure:
- Academic Support to Weak Students : Institutions under sub-component 1.1 and 1.2 are expected to spend at least 4% and 2% of their project allocation for this activity head respectively
 - Faculty & Staff Development : Government and Government aided institutions should plan to spend at least 10% of project allocation for this head
- c) Fund from Procurement and IOC Head of expenditure can also be re-appropriated to Head of expenditure for academic activities but not vice versa.

(iv) Academic Autonomy:

The project institutions are required to possess/obtain Autonomous Institution Status and carry out all the functions listed below:

Table-26
Academic functions to be carried out as an Autonomous Institution

S. No.	Parameters / Functions
1	Admission of students based on merit as per State/Gol Admission Policy (as applicable) 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 (these actions, if undertaken under the Project, will need to observe project directives as given in the main text of PIP)
11	Introduce innovations in teaching/learning processes through controlled experimentation
12	Conduct 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 to courses, new teaching learning methodologies and innovations
14	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 experts for special lectures

2. Governance system with participation of stakeholders:

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 for Government funded, government aided, private unaided institutions and University constituent colleges. The BoG of Deemed to be university should be as per UGC Regulations 2010 (see Annex-II), and for NITs and CFIs, as per their Act/MoA. 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, in addition to performing functions listed under Annex-I (1) (i), carry out the following functions:

- Fix the fees and other charges payable by the students on the recommendations of the Finance Committee;
- Institute scholarships, fellowships, studentships, medals, prizes and certificates on the recommendations of the Academic Council;
- Approve starting of new programmes of study leading to degrees and diplomas;
- Determine pay packages to attract and retain quality faculty and staff;
- Assess justification / necessity of foreign travel by faculty; and
- Perform such other functions and form such 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.

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

- Academic Council/Committee : As per Act / MoA
- Academic Quality Assurance Committee
- Finance Committee : As per Act / MoA
(These two Committees will have representatives of faculty as their members)
- Building and Works Committee
- Purchase Committee
- Disciplinary Committee
- Institution Development Committee
- Students Affairs Committee
- Library Committee
- Grievance Committee
- Anti Sexual Harassment Committee (ASH)
- Any other Advisory Committees (as per need)

Except for the Academic Council/ Committee and the Finance Committee, all other committees may be permitted to be constituted 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 Institutional 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 Government funded and aided 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 will need to be provided by States as 'force majeure' in the event of revision of scales of pay and for other unforeseen events.

4. Establishment of four Funds:

- a) Creation and establishment of Four Funds is a Project requirement that is to be complied with by all institutions.
- b) The purpose of these Funds is to ensure sustainability of the reform process beyond the Project period.

- c) Separate Bank Account has to be opened for each of the Four Funds namely;
- Corpus Fund
 - Faculty Development Fund
 - Equipment Replacement Fund
 - Maintenance Fund
- d) **These Funds should not be used during the Project period as funds for various activities are available under the Project.**
- e) 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. 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 (institutional share), and matching Grants from Government/management on IRG etc.
- f) Each institution may additionally contribute from annual savings to the Corpus Fund.

5. Revenue Generation:

- a) 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.
- b) Contributions and performance of faculty and staff in such activities needs to be recognised through awards, rewards or promotions.
- c) The concerned persons (faculty and staff involved in revenue generating activity) should be given due freedom to utilize part of the earnings to develop office and laboratory facilities, purchase of literature and attendance at conferences.
- d) 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, and
 - Commercial activities [commercial use of facilities, earning from Incubation Centres and Scientific and Technology Entrepreneurship Programme (STEP)].
- e) 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.

- a) Re-assess and rationalise the requirement of the total faculty (including Physics, Chemistry and Mathematics) by following the AICTE norms.
- b) For Faculty requirements as per AICTE norms, the faculty student ratio for UG programmes in Engineering / Technology is 1:15. It is suggested that an attempt should be made to have a preferred ratio of 1:12. For the Masters programmes in Engineering / Technology, the required faculty student ratio is 1:12 but preferably it should be 1:10.
- c) 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.

a) 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 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.
- The examples of using Formative approach are giving open and closed-book mock tests, mock assignments, mock quizzes, mock presentations, orals, individual and group assignments, etc. Note that these are not meant for student evaluation for grading. These are to be used for identifying the areas for improvement.
- 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.
- While Summative evaluation involves marks and/or grade assessment (present practice), the Formative ones must be used to encourage the students to perform better.
- 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 (more than 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.
- 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.

b) 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.

c) 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 into 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 should be 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 once in five years, counselling would have improved the assessment grading of even the poorest faculty over this period.

a) Salient Points:

- 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--Early (by 1 month), Mid-Course (by 2-3 months) and 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 and students 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 from her/him for providing quality education.
- Student feedback and self assessment must be shared only with HoD (for purely facilitative purposes and towards improvements).
- The BoG must ensure that these assessments are used only for faculty improvement not for promotion, giving incentives, etc.
- The HoD may appoint a suitable Counsellor (e.g. someone senior enough/ highly respectful with good teaching qualities) to help the faculty.
- Improvement in teaching may be monitored and results shared with the faculty.

b) Steps:

- Develop formats for student feedback regarding the assessment of a faculty on a course. Some benchmarks of IIT-system Feedback Forms may be suitably adopted to individual contexts.
- Similarly, develop the faculty self-assessment formats. 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/her, 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 improvements needed further.

- 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 only.
- 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 senior to the faculty concerned.

c) 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, and
- 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. Incentivization of Faculty for Continuing Education, Consultancy, Research and Development, etc.:

All faculty should be encouraged to participate in organizing and/or contributing to, and attending Continuing Education (CE) Programmes, to offer consultancy to Industry and to take part in Research and Development (R&D) activities in the institution. Institutions 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, etc. At the beginning of the next semester, every faculty should fill in the Faculty Achievement Chart indicating the actual hours spent in various 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.

a) Highlights:

- Faculty should take active interest in organizing and/or contributing to and 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.
- Institutions should 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 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 from institutional funds.

b) 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 activity 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.**

c) 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.

**UNIVERSITY GRANTS COMMISSION (UGC) GUIDELINES
FOR SCHEME OF AUTONOMOUS INSTITUTIONS**

(reproduced from the UGC Guidelines - XI Plan)

1. Objective:

The National Policy on Education (1986-92) formulated the following objectives for Autonomous Institutions. An Autonomous Institution 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;
- 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; and
- 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, neighbourhood programmes, etc.

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

Autonomous Institutions 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.

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

The role of the parent University will be:

- To bring more Autonomous Institutions under its fold;
- To promote academic freedom in Autonomous Institutions 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 institution;
- To depute various nominees of the University to serve in various committees of the autonomous institutions and get the feedback on their functioning; and
- To create separate wings wherever necessary to facilitate the smooth working of the Autonomous Institutions.

The State Government will assist the Autonomous Institutions by:

- Avoiding, as far as possible, transfer of faculty, especially in institutions where academic innovation and reforms are in progress, except for need based transfers;
- Conveying its concurrence for the extension of autonomy of any institution 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 institution continuing to be autonomous; and
- Deputing nominees on time to the Governing Body and other bodies wherever their nominees are to be included.

3. Requirement:

The parent University will confer the status of autonomy upon an institution that is permanently affiliated, with the concurrence of the State Government and the University Grants Commission (UGC).

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

Before granting autonomy, the University will ensure that the management structure of the applicant institution 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 (in the case of TEQIP-II, Secretary responsible for tertiary level engineering education)
- c) Chairman, State Council for Higher Education or his/her nominee (in the case of TEQIP-II, the Council responsible for tertiary level engineering education)
- d) Director of Collegiate Education or his/her nominee (in the case of TEQIP-II, the Director responsible for tertiary level engineering education)
- e) Vice-Chancellor or his/her nominee
- f) Joint Secretary (Autonomous Institutions), Member Secretary

The Convener will chair the Committee. The cases of short listed institutions 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 institutions 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 institutions 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 Institution

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 institution	Nominated by the Principal, based on seniority
1 Member	Educationist or Industrialist	Nominated by the Principal, 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 institution	Ex-officio

ii) Constitution of Governing Body of Private Unaided Autonomous Institution

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 institution	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 institution	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 institution	Nominated by the Principal, based on seniority
1 Member	State Government nominee	Nominated by the State Government
1 Member	University nominee	Nominated by the University
1 Member	UGC nominee	Nominated by the UGC
1 member	Principal of institution	Ex-officio

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

Note : The institutions are required to constitute BoG as per UGC after obtaining autonomous institution status from UGC.

6. Functions:

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

- Fix the fees and other charges payable by the students of the institution on the recommendations of the Finance Committee.
- Approve institution of 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 institute such committees, as may be necessary and deemed fit for the proper development, and fulfill the objectives for which the institution has been declared as autonomous.

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

Deemed-to-be-Universities:

The Deemed-to-be-Universities have to comply with the BoG structure as per UGC Regulation-2010.

- The highest governing body of the deemed to be university shall be a Board of Management to be headed by the **Vice Chancellor or a distinguished academic**. This body shall consist of a minimum of ten members and a maximum of twelve members.
- The number of representative(s)/ nominee(s) of the trust(or) society on the Board of Management shall be limited to a maximum of two.
- The Departments dealing with allied subjects could be grouped into faculties. Each faculty may be headed by a Dean.

- Board of Management consisting of the following:
 - i) Vice-Chancellor.....Chairperson
 - ii) Pro Vice-Chancellor (wherever applicable)
 - iii) Deans of Faculties not exceeding two (by rotation based on seniority)
 - iv) Three eminent academics as nominated by the Chancellor
 - v) One eminent academic to be nominated by the Central Government in consultation with UGC
 - vi) Two teachers (from Professors, Associate Professors) by rotation based on seniority
 - vii) One nominee of the sponsoring Society
 - viii) The Registrar, who shall be the Secretary

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

THIS MEMORANDUM OF UNDERSTANDING is made on this ____ day of _____ 2014 between the President of India acting through Shri/Smt _____ Education Secretary/ Special 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/UT) acting through Shri/Smt _____, Principal Secretary/ Secretary, State/UT 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 improve learning outcomes and employability of graduates
- 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 tertiary level Engineering Education, as the Chairperson;
 - Financial Controller of the State Department concerned with tertiary level Engineering 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)¹;
 - Commissioner/Director for Technical Education in the State [being Head of the State Project Facilitation Unit (SPFU)], as the Member-Secretary.
- follow the Project guidelines and procedures prescribed in the Project Implementation Plan (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 July 14, 2010 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 Financing 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 funding to project institutions beyond the second year of the Project subject to their obtaining the autonomous status (applicable to institutions participating in Sub-component 1.1).
 - 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 Four 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.
 - 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-up on a regular basis.
 - to constitute Board of Governors at each project institution and ensure that the Board of Governors meets 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 secure pedagogical training for their faculty.
 - to extend the benefit of pedagogical training to faculty from non-project institutions.
 - 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.

¹ 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.

- 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 Monitoring 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) and the project institutions 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. which 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 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 Monitoring 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 UG and PG programmes that are accredited
 - Percentage of institutions with academic autonomy
 - Percentage of faculty with a Masters or a PhD degree
 - Number of Masters and PhD students enrolled
 - Percentage revenue from externally funded R&D projects and consultancies in total revenue
 - 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-5 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-5 of 'THE PIP'.

SECTION E:

The Project implementation schedule:

- The Project became effective on August 6, 2010.
- The Project is expected to proceed at uniform rate over four years commenced on August 6, 2010, and expected to be completed in December 2014.

SECTION F:

- If, as a result of slow implementation by 'THE SECOND PARTY', 'THE FIRST PARTY' incurs commitment charges in respect of the Financing 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 _____ 2014.

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

(Shri/Smt _____)
Principal Secretary/Secretary
(Name of the Project State
_____)
Development

FOR AND ON BEHALF OF
The President of India

(Shri/Smt _____)
Education Secretary/Special Secretary
Department of Higher Education,
Ministry of Human Resource
Government of India

Witness 1 _____

Witness 2 _____

MEMORANDUM OF UNDERSTANDING

BETWEEN

..... (Name of the Centrally Funded Institution)

AND

MINISTRY OF HUMAN RESOURCE DEVELOPMENT (MHRD)

GOVERNMENT OF INDIA

FOR IMPLEMENTATION OF TEQIP PHASE-II UNDER

TECHNICAL EDUCATION QUALITY IMPROVEMENT PROGRAMME

THIS MEMORANDUM OF UNDERSTANDING is made on this ____ (day) of ____ (month) of 2014 between the President of India acting through Shri _____ Education Secretary/ Special Secretary, Ministry of Human Resource Development (MHRD), Government of India (hereinafter called the 'THE FIRST PARTY') and _____ (name of the Centrally Funded Institution) through Prof _____, the Director _____ (name of the Centrally Funded Institution) (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 institution 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 TEQIP-II (hereinafter called 'The Project').

AND WHEREAS in pursuance of this concern, the Project objectives are:

- Strengthening institutions to improve learning outcomes and employability of graduates
- 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 July 14, 2010 between Government of India and IDA.
- 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, revised October 2006; and 'Guidelines: Selection and Employment of Consultants by the World Bank Borrowers' May 2004, revised October 2006 and the agreed procedures and limits described in the Financing Agreement.
- achieve targets given in the 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 TEQIP Unit with senior faculty experienced in their respective functional areas and sustain it with continuity throughout Project life.
- implement the Disclosure Management Framework under the Project to ensure high level of transparency and accountability.
- secure pedagogical training for all the institution's faculty.
- comply with the terms and conditions for the release of first and subsequent Grants 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' the quarterly Financial Monitoring 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' 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 Grants.
- meet all necessary and incidental expenses for the performance of responsibilities like expenses for meetings, travel, professional fees and other costs for pre-project activities, and these 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 implementation of the Project in the SECOND PARTY's institution.
- take corrective actions with regard to the non-performance in implementation of the Project by the SECOND PARTY.
- review the findings of performance audits and maintain the policy reforms and conduct evaluation studies.

SECTION C:

- 'THE FIRST PARTY' will release funds towards the approved project cost to the SECOND PARTY's institution 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 'SECOND PARTY' will be based on Quarterly Financial Monitoring Reports (FMRs).
- 'THE FIRST PARTY' and 'THE SECOND PARTY' agree to accept the following Key Performance Indicators (KPIs):
 - Percentage of UG and PG programmes that are accredited,
 - Percentage of faculty with a Masters and PhD degree,
 - Number of Masters and PhD students enrolled,
 - Filling vacant positions in faculty and staff,
 - Percentage revenue from externally funded R&D projects and consultancies in total revenue,
 - Increase in the number of publications in refereed journals, and
 - Transition rate for all students including those with 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-5 of 'THE PIP'.

SECTION E:

The Project implementation schedule:

- The Project became effective on 6th August 2010.
- The Project is expected to proceed at uniform rate over four years commenced on 6th August 2010 and is expected to be completed in 2014.

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 _____ (month) 2014.

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/Smt _____)
Additional Secretary
Department of Higher Education
Ministry of Human Resource Development
Government of India

Witness 1 _____

Witness 2 _____

MEMORANDUM OF UNDERSTANDING BETWEEN
THE STATE/UT OF _____
AND

(NAME OF THE GOVERNMENT FUNDED/ GOVERNMENT AIDED INSTITUTION UNDER SUB-COMPONENT 1.1 OR 1.2/ PRIVATE UNAIDED INSTITUTION UNDER SUB-COMPONENT 1.2) FOR IMPLEMENTATION OF PROJECT TEQIP-II UNDER TECHNICAL EDUCATION QUALITY IMPROVEMENT PROGRAMME (TEQIP) Phase-II

THIS MEMORANDUM OF UNDERSTANDING is made on this ____ day of _____ 2014 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/trust) _____ under Act (if any) _____, name of the place _____, registration number of society/trust _____.

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 improve learning outcomes and employability of graduates
- 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 July 14, 2010 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 Financing Agreement.
- obtain Autonomous institution status within a period of two years from the start of the Project (applicable for institutions selected under Sub-component 1.1).
- achieve targets given in the 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 for all the institution's faculty.
- comply with the terms and conditions for the release of first and subsequent Grants 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 Monitoring 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-name of State/State for release of subsequent Grants.
- meet all necessary and incidental expenses for the performance of responsibilities like expenses for meetings, travel, professional fees, cost for pre-project activities etc. which 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 Monitoring 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'.
- 'THE FIRST PARTY' and 'THE SECOND PARTY' agree to accept the following Key Performance Indicators (KPIs):
 - Percentage of UG and PG programmes that are accredited
 - Percentage of faculty with a Masters or a PhD degree
 - Number of Masters and PhD students enrolled

- Percentage revenue from externally funded R&D projects and consultancies in total revenue
- 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-name of State/UT (hereinafter called 'THE SPFU'). The functions of 'THE SPFU' are indicated in Section-5 of 'THE PIP'.

SECTION E:

The Project implementation schedule:

- The Project became effective on 6th August 2010.
- The Project is expected to proceed at uniform rate over four years commenced on 6th August 2010 and is expected to be completed in 2014.

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 ----- on ----- this day of ----- 2014.

FOR AND ON BEHALF OF
Chairman, Board of Governors

FOR AND ON BEHALF OF
Governor, State/UT of

(Name of the Institution)

Prof _____
Director

Shri -----
Principal Secretary/Secretary
Name of the project State/UT

(Name of the Institution)

(Name of the project State/UT)

Witness 1 _____

Witness 2 _____

MEMORANDUM OF UNDERSTANDING
BETWEEN
(THE STATE/UT 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 (TEQIP) Phase-II

THIS MEMORANDUM OF UNDERSTANDING is made on this ____ day of _____ 2014 between the Governor/ Administrator of the State/UT of (name of the State) through Shri _____, Secretary, State/UT 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/Trust _____ under Act _____ Name of the place, Registration Number of society/trust _____).

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 July 14, 2010 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 the World Bank Borrowers May 2004 and revised October 2006 (Consultancy Guidelines) and the agreed procedures and limits described in the Financing Agreement.
- obtain autonomous institutional status within a period of two years from the start of the Project.
- 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 for all the institution's faculty.
- comply with the terms and conditions for the release of first and subsequent Grants by 'THE FIRST PARTY' as described at Section C.
- to seek allocation of funds under 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 Monitoring 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 Grants.
- meet all necessary and incidental expenses for the performance of responsibilities like expenses for meetings, travel, professional fees, cost for pre-project activities etc. which 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 Monitoring 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 including pedagogical training of faculty
 - 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 UG and PG programmes that are accredited
 - Percentage of faculty with a Masters or a PhD degree
 - Number of Masters and PhD students enrolled
 - Percentage revenue from externally funded R&D projects and consultancies in total revenue
 - 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-5 of ‘THE PIP’.

SECTION E:

The Project implementation schedule:

- The Project became effective on 6th August 2010.
- The Project is expected to proceed at uniform rate over four years commenced on 6th August 2010 and is expected to be completed in 2014.

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 ----- 2014.

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)

FOR AND ON BEHALF OF
Governor of State/UT

Shri -----
Principal Secretary/Secretary

(Name of the project State/UT)

Witness 1 _____
Witness 2 _____

**TECHNICAL EDUCATION QUALITY IMPROVEMENT PROGRAMME (TEQIP)
(PHASE – II)**

**PROPOSAL FORMAT FOR
SELECTION OF STATES AND UNION TERRITORIES (UTs)**

Eligibility Criteria for Selection of State:

The States² will be selected based on merit of their proposal and their commitment to the following eligibility criteria:

S. No.	Attainment Parameters
1.	<p>Autonomous Status: The States need to encourage the project institutions participating in sub-component 1.1 to obtain <u>Autonomous Institution status</u> 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>Continuation of funding to any project institution beyond the second year of the Project will be subject to its obtaining Autonomous Institution status.</p>
2.	<p>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 State needs to:</p> <ul style="list-style-type: none"> ▪ Adopt a Block Grant pattern: (as described in Annex-I) for fund release of, <u>at least, the non-salary non-Plan component of grants</u> 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. ▪ Allow 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. ▪ Allow 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). The States to: <ul style="list-style-type: none"> ➤ 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.
3.	<p>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 Sections 4.3.1 and 4.3.2 respectively. The States need to authorize each project institution to fill-up all faculty vacancies on a regular basis (over and above the benchmark value). Till such time that these vacancies are filled-up on a regular basis, the appointments on 11 month or longer contract may be permitted by the State.</p>
4.	<p>Establishment of SPFU: Establish an SPFU, 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.</p>
5.	<p>Constitution of BoG 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 Board of Governors in each project institution as suggested in Section-5 and ensure that the Board of Governors meets at least 4 times in a year.</p>
6.	<p>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)</p>
7.	<p>Conduct of Pedagogical Training: Each State has to ensure that each project institution imparts pedagogical training to all its faculty members. The benefit of pedagogical training is also to be extended to faculty of non-project 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 1-4.

² Throughout the PIP, the word "State" implies both the State Governments and the Union Territory Governments.

SELECTION OF STATES

PART – I

- 1.1 Name of the State/UT: _____
- 1.2 Name of Secretary/Principal Secretary dealing with Engineering Education: _____

- 1.3 Location of Directorate of Technical Education (DTE)/Department of State Government responsible for Engineering Education: _____

Name of the Director of Technical Education (DTE) / Officer responsible in the Department of State Government for Engineering Education: _____
- 1.4 Furnish the baseline data in Table-27.
- 1.5 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]
- 1.6 Summarize the main steps and challenges to implement increased academic autonomy in the institutions participating in Sub-component 1.1. [Eligibility Criteria 1] and establishing a Board of Governors [Eligibility Criteria 5]. Has the State consulted with affiliating Universities regarding this aspect? [Maximum 1 page]
- 1.7 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]
- 1.8 Briefly explain the State Plan for sustaining the gains from the Project after its closing. [Maximum ½ page]

Table-27
State/UT Level Academic Data for Academic Year 2009-10

Note: 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 ³		X	X			X	X			X	X			X	X	

(X indicates that the information not required)

³ 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	Does the State agree to: 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	sponsor proposals from private unaided institutions and provide grant to those selected 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 Institution status as per UGC norms and procedures?	
8	discontinue funding to any project institution beyond the second year of the Project, if the 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 meets at least 4 times in a year and ensure that the main proceedings of the meetings are made available on the internet?	
15	comply with Financial Management Guidelines as described in Section-6?	
16	follow Procurement Guidelines as described in Section-8 of PIP?	
17	comply with the Equity Action Plan as described in Section-9 of PIP?	
18	comply with the Environment Management Framework as described in Section-10 of PIP?	
19	comply with the Disclosure Management Framework as described in Section-11 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**

* for selection of Institutions in 1st Cycle.

1. INSTITUTIONAL BASIC INFORMATION

(Note: Please insert the name of applicant institution and the Sub-component number in the footer on each page of the proposal.)

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/Other
- Status of Institution : Autonomous Institute as declared by University / Non Autonomous/Deemed University/Constituent College/ University Technical Department or faculty or University Constituent College
- Name of Head of the Institution (Full time appointee) : _____

1.1 Academic Information:

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

S. No	Title of programmes	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 31st March. 2010?	Whether "Applied for" as on 31st March 2010?

- **Accreditation Status of PG programmes:**

Title of PG programmes being offered	Whether eligible for accreditation or not?	Whether accredited as on 31st March 2010?	Whether "Applied for" as on 31st March 2010?

1.1 Faculty Status (Regular/On-Contract Faculty as on March 31st, 2010):

Faculty Rank	No. of Sanctioned Regular Posts	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						
		Engineering Disciplines		Other Disciplines		Engineering Disciplines		Other Disciplines		Engineering 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																
Total																

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

2. ELIGIBILITY PROPOSAL

2.1 Eligibility Criteria:

Institutions to be eligible for participation in the project under the Sub-component 1.1 must meet the following benchmarks:

Benchmarks for Institutions to Qualify for Sub-component-1.1

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

* Minimum 40% regular faculty of the sanctioned strength and a minimum overall faculty strength of 50% including faculty on eleven months or longer duration contract.

These institutions will essentially have to have a minimum of 50% regular faculty as per the AICTE prescribed faculty student ratio (for NITs & CFIs MHRD norms as applicable) within one year of signing of MoU, failing which project funding will be stopped.

** Faculty strength as per AICTE approved norms out of which at least 50% should be appointed on regular basis (Please provide the faculty details i.e. name, qualification, department and date of appointment and status (Regular / Contract)).

*** Kindly provide the full BoG composition with names and designations.

Government Funded, Government Aided, Private Unaided and University Constituent Institutions: The BoG structure required for fulfilling the eligibility parameters for participation in the project is as follows:

1. The Chairperson
The Chairperson has to be an eminent educationist/ industrialist (should not be an employee of the institution, a serving Govt. official or an elected peoples' representative)
2. Two to Five members to be nominated by the Registered Society/ Trust
(Not applicable for Govt. and Govt. aided institutions)
3. Two educationist/ industrialists
4. One nominee of the AICTE/UGC
5. One nominee of the State Government
6. One nominee of the University to which the Institution is affiliated
7. Two faculty members of the Institution
8. Head of the Institution, Ex-officio

University Faculty/Department/Unitary Constituent Institution: The Managing Committee (BoG) structure for the applicant Faculty or Department or Unitary Constituent Institution (where no other engineering constituent institution / department / faculty exists under the same university) to be as per the regulations of respective University as made will be considered eligible.

Deemed-to-be-Universities: The Deemed-to-be-Universities has to comply with the BoG structure as per UGC Regulation-2010.

NITs and CFIs: NITs and CFIs have to comply with the BoG structure as per the Act or the Memorandum of Association as applicable.

- 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 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 an action plan to achieve the desired results and implement the institutional project. [maximum 2 pages]
- 2.5 Describe the capacity and steps for Implementation of the following key reforms: [maximum 2 pages]
- a. How will the institution obtain autonomous status in two years and what are the main challenges?
 - b. How will the institution obtain accreditation for its programmes and what are the main challenges?
 - c. How will the institution 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 2009-2010)

**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)**

* for selection of Institutions in 1st Cycle.

1. INSTITUTIONAL BASIC INFORMATION

(Note: Please insert the name of applicant institution and the Sub-component number in the footer on each page of the proposal.)

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 Institution / University Technical Department or faculty or University Constituent College

- Name of Head of Institution and Project Nodal Officers

Head and Nodal Officer	Name	Phone Number	Mobile Number	Fax Number	E-mail Address
Head of the Institution (Full time appointee)					
TEQIP Coordinator					
Project Nodal Officers for:					
Academic Activities					
Civil Works including Environment Management					
Procurement					
Financial aspects					
Equity Assurance Plan Implementation					

1.2 Academic Information:

- **Engineering programmes offered in Academic year 2009-10:**

S. No	Title of programmes	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 st March 2010?	Whether "Applied for" as on 31 st March 2010?

- **Accreditation Status of PG programmes:**

Title of PG programmes being offered	Whether eligible for accreditation or not?	Whether accredited as on 31 st March 2010?	Whether "Applied for" as on 31 st March 2010?

1.3 Faculty Status (Regular/On-Contract Faculty as on March 31st, 2010):

Faculty Rank	No. of Sanctioned Regular Posts	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						
		Engineering Disciplines		Other Disciplines		Engineering Disciplines		Other Disciplines		Engineering 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																
Total																

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

1.4 Baseline Data (all data given for the following parameters must be restricted to engineering disciplines/fields only)

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 text books and reference books available in library for UG and PG students in the year 2009-10	
8	% of UG students placed through campus interviews in the year 2009-10	
9	% of PG students placed through campus interviews in the year 2009-10	
10	% of high quality undergraduates (>75% marks) passed out in the year 2009-10	
11	% of high quality postgraduates (>75% marks) passed out in the year 2009-10	
12	Number of research publications in Indian refereed journals in the year 2009-10	
13	Number of research publications in International refereed journals in the year 2009-10	
14	Number of patents obtained in the year 2009-10	
15	Number of patents filed in the year 2009-10	
16	Number of sponsored research projects completed in the year 2009-10	
17	The transition rate of students in percentage from 1 st year to 2 nd year in the year 2009-10 for: (i) all students (ii) SC (iii) ST (iv) OBC	
18	IRG from students' fee and other charges in the year 2009-10 (Rs. In lakh)	
19	IRG from externally funded R&D projects, consultancies in the year 2009-10 (Rs. in lakh)	
20	Total IRG in the year 2009-10 (Rs. in lakh)	
21	Total annual recurring expenditure of the applicant entity in the year 2009-10 (Rs. in lakh)	

2. INSTITUTIONAL DEVELOPMENT PROPOSAL (IDP)

- 2.1 Give the Executive Summary of the IDP.
- 2.2
 - Provide the details of SWOT analysis (see Annex-V to PIP) carried out (in terms of methodology used, analysis and information and data as collected and inferences derived with respect to strengths, weaknesses, opportunities and threats).
 - Based on SWOT analysis, provide the “strategic plan” developed for institutional development.
 - How the key activities proposed in the Institutional Development Proposal are linked with the results of SWOT Analysis.
- 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 50% of the eligible UG and PG programmes accredited within two years of joining the Project and 80% accreditation obtained and applied for by the end of the Project of the eligible UG and PG programmes
 - e) Implementation of academic and non academic reforms (details given in Annex-I to PIP)
 - f) Improving interaction with industry
 - g) Enhancement of research and consultancy activities
- 2.5 Provide an action plan for organising a Finishing School and 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 and starting of new PG programmes.
- 2.7 Attach a summary of Training Needs Analysis carried out. Also, provide Faculty Development Plan for the first 18 months for improving their teaching, subject area and research competence based on Training Needs Analysis (TNA) (see Annex-VI to PIP) in the following areas.
 - 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 IDP preparation.
- 2.11 Describe the Institutional project implementation arrangements with participation of faculty and staff.
- 2.12 Provide an Institutional project budget in Table-29.

Institutional Project Budget for Sub-Component 1.1

[Note: For details of permissible and non-permissible expenditures, please see Table-18 (for Centrally Funded, Government funded and aided institutions) and Table-18 (a) (for private unaided institutions)]

(Rs. in Crore)

S. No	Activities	Project Life Allocation	Financial year				
			2010-11	2011-12	2012-13	2013-14	2014-15
1	Infrastructure improvements for teaching, training and learning through:						
	(i) Modernization and strengthening of laboratories						
	(ii) Establishment of new laboratories for existing UG and PG programmes and for new PG programmes						
	(iii) Modernization of classrooms*						
	(iv) Updation of Learning Resources						
	(v) Procurement of furniture						
	(vi) Establishment/Upgradation of Central and Departmental Computer Centers*						
	(vii) Modernization/improvements of supporting departments*						
	(viii) Modernization and strengthening of libraries and increasing access to knowledge resources						
	(ix) Refurbishment (Minor Civil Works)*						
2	Providing Teaching and Research Assistantships to increase enrolment in existing and new PG programmes in Engineering disciplines and starting new PG programmes						
3	Enhancement of R&D and institutional consultancy activities*						
4	Faculty and Staff Development (including faculty qualification upgradation, pedagogical training, and organising/participation of faculty in workshops, seminars and conferences) for improved competence based on TNA						
5	Enhanced Interaction with Industry						
6	Institutional management capacity enhancement						
7	Implementation of institutional academic reforms						
8	Academic support for weak students under the aegis of Finishing School						
9	Technical assistance for procurement and academic activities						
10	Incremental Operating Cost						
TOTAL							

* Not applicable for private unaided institutions.

2.13 Provide the targets against the deliverables listed in Table-30.

Project Targets⁴ for Institutions under Sub-component 1.1

S. No	Deliverables	Base-line	Targets to be achieved	
			At the end of 2 years of joining the Project	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 lakh)			
3	Number of publications in refereed journals a) National b) International			
4	IRG as % of total annual recurring expenditure			
5	Number of co-authored publications in refereed journals (a) National (b) International			
6	Student credentials (a) campus placement rate of • UG students • PG students (b) average salary of placement package for (Rs. in lakh) • UG students • PG students			
7	Number of collaborative programmes with Industry			
8	Accreditation status (obtained plus applied for)		Minimum 50% of UG + PG	80% of eligible UG + PG programmes
9	Faculty position filled		For Govt. funded & aided institutions : 70% (with at least 55% on regular appointment and remaining on 11 months or longer contracts)	For Govt. funded & aided institutions : 80% (with at least 60% on regular appointment and remaining on 11 months or longer contracts)
			For Private unaided institutions : 100% (with at least 60% on regular appointment and remaining on 11 months or longer contracts)	For Private unaided institutions : 100% (with at least 70% on regular appointment and remaining on 11 months or longer contracts)
10	Percentage of regular faculty having a Masters Degree or a Doctorate Degree in Engineering disciplines		Increased by 20% and 10% respectively over base line	Increased by 40% and 20% respectively over base line
11	Transit rate from 1 st to 2 nd year for the following: • All Students • SC and ST Students • OBC Students • Women Students			
12	Autonomy status		Required to be obtained	
13	Enrolment of faculty with only Bachelor Degree for qualification upgradation		At least 50% of the faculty with only Bachelor degree at base line at the parent institution or 25% at other institution	
14	Any other academic deliverables (maximum 3)			
(i)				
(ii)				
(iii)				

Note : The accreditation targets for Undergraduate and Postgraduate programme are for **NBA accreditation of programmes.**

2.14 Give an action plan for ensuring that the project activities would be sustained after the end of the Project.

2.15 Provide a Procurement Plan for the first 18 months for Goods and Civil Works in Table-31 and Consultant Services in Table-32 with budget and timeframe.

2.16 Provide any other information related to special academic achievements as given in Eligibility proposal of the institution.

⁴ These pertain to the entity participating in the Project which may either be the whole stand alone institution or the Faculty / Department / constituent institution of a University or Faculty/Department of a Technical Deemed University.

Procurement Plan for Works and Goods* for Sub-component 1.1

Name of the institution with location: _____

Package No.	SI No.	Activities	Description of Works/ Goods	Estimated Cost (Rs)	Method of Procurement	Design/ Investigation Completion/ Specification Finalization (Date)	Estimate Sanctioned (Date and Value)	Preparation of Bid Document (Date)	Receipt of 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)	(14)

* Goods cover Equipment, Furniture and Books and Learning Resources

** Applicable in case of 'Prior Review' by the World Bank

Note: For Column 6, state ICB/NCB/Direct Contracting/Shopping method as appropriate

Procurement Plan for Consultant Services for Sub-component 1.1

Name of the institution with location: _____

SL No	Activities	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 the Bank for RFP (Date)**	RFP Issued (Date)	Proposals Received (Date)	Evaluation (Date)	No Objection by the Bank (Date)**	Contract Value and Date of Award	Contract Completion (Date)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)

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

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

** Applicable in case of 'Prior Review' by the World Bank

**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**

* Only for selection of Government / Government Aided / Centrally Funded Institutions (CFIs) in 2nd Cycle of selection under Sub-component 1.1.

1. INSTITUTIONAL BASIC INFORMATION

(Note: Please insert the name of applicant institution and the Sub-component number in the footer on each page of the proposal.)

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/Centrally Funded Intuition
- Status of Institution : Autonomous Institute as declared by University/Non Autonomous/Deemed to be University/Constituent College of Deemed to be University/ University Technical Department or faculty / University Constituent College
- Name of Head of the Institution : _____
(Full time appointee)

1.2 Academic Information:

- **Engineering UG and PG programmes offered in Academic year 2011-12:**

S. No	Title of programmes	Level (UG, PG, PhD)	Duration (Years)	Year of starting	AICTE sanctioned annual intake (2008-09 onwards)	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 st July 2012?	Whether "Applied for" as on 31 st July 2012?

- **Accreditation Status of PG programmes:**

Title of PG programmes being offered	Whether eligible for accreditation or not?	Whether accredited as on 31 st July 2012?	Whether "Applied for" as on 30 th 31 st July 2012?

1.3 Status of Faculty Associated with Teaching Engineering Students (Regular & Contract) as on 31st July 2012:

Faculty Rank	No. of Sanctioned Regular Posts	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						
		Engineering Disciplines		Supporting Disciplines (Physics, Chemistry, Maths and Humanities)		Engineering Disciplines		Supporting Disciplines (Physics, Chemistry, Maths and Humanities)		Engineering Disciplines		Supporting Disciplines (Physics, Chemistry, Maths and Humanities)				
		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

[Kindly provide all the details of faculty such as names, qualification, department, designation, date of appointment and status of appointment (regular/contract)].

2. ELIGIBILITY CRITERIA

2.1 Eligibility Criteria:

Institutions to be eligible for participation in the project under the Sub-component 1.1 must meet the following benchmarks:

Table-28
Benchmarks for Institutions to qualify for Sub-component 1.1

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

* Minimum 40% regular faculty of the sanctioned strength and a minimum overall faculty strength of 50% including faculty on eleven months or longer duration contract.

These institutions will essentially have to have a minimum of 50% regular faculty as per the AICTE prescribed faculty student ratio (for NITs & CFIs MHRD norms as applicable) within one year of signing of MoU, failing which project funding will be stopped.

** Faculty strength as per AICTE approved norms out of which at least 50% should be appointed on regular basis (Please provide the faculty details i.e name, qualification, department and date of appointment and status (Regular / Contract).

*** Kindly provide the full BoG composition with names and designations.

Government Funded, Government Aided, Private Unaided and University Constituent Institutions: The BoG structure required for fulfilling the eligibility parameters for participation in the project is as follows:

1. The Chairperson
The Chairperson has to be an eminent educationist/ industrialist (should not be an employee of the institution, a serving Govt. official or an elected peoples' representative)
2. Two to Five members to be nominated by the Registered Society/ Trust (Not applicable for Govt. and Govt. aided institutions)
3. Two educationist/ industrialists
4. One nominee of the AICTE/UGC
5. One nominee of the State Government
6. One nominee of the University to which the Institution is affiliated
7. Two faculty members of the Institution
8. Head of the Institution, Ex-officio

University Faculty/Department/Unitary Constituent Institution: The Managing Committee (BoG) structure for the applicant Faculty or Department or Unitary Constituent Institution (where no other engineering constituent institution / department / faculty exists under the same university) to be as per the regulations of respective University as made will be considered eligible.

Deemed-to-be-Universities: The Deemed-to-be-Universities has to comply with the BoG structure as per UGC Regulation-2010.

NITs and CFIs: NITs and CFIs have to comply with the BoG structure as per the Act or the Memorandum of Association as applicable.

Note : Enclose supporting document: AICTE Mandatory Disclosure for 2011-2012 or 2012-2013)

3. Baseline Data (all data given for the following parameters must be restricted to engineering disciplines/fields only):

S. No	Parameters	2010-11	2011-12
1	Total strength of students in all programmes and all years of study		
2	Total women students in all programmes and all years of study		
3	Total SC students in all programmes and all years of study		
4	Total ST students in all programmes and all years of study		
5	Total OBC students in all programmes and all years of study		
6	Number of fully functional P-4 and above level computers available for students		
7	Total number of text books and reference books available in library for UG and PG students		
8	% of UG students placed through campus interviews		
9	% of PG students placed through campus interviews		
10	% of high quality undergraduates (>75% marks) passed out		
11	% of high quality postgraduates (>75% marks) passed out		
12	Number of research publications in Indian refereed journals		
13	Number of research publications in International refereed journals		
14	Number of patents obtained		
15	Number of patents filed		
16	Number of sponsored research projects completed		
17	The transition rate of students in percentage from 1 st year to 2 nd year for: (i) all students (ii) SC (iii) ST (iv) OBC		
18	IRG from students' fee and other charges(Rs. In lakh)		
19	IRG from externally funded R&D projects, consultancies (Rs. in lakh)		
20	Total IRG (Rs. in lakh)		
21	Total annual recurring expenditure of the applicant entity (Rs. in lakh)		

Note : Academic year for academic data : July – June
Financial year for financial data : April - March

4. INSTITUTIONAL DEVELOPMENT PROPOSAL (IDP)

- 4.1 Give the Executive Summary of the IDP.
- 4.2
- Provide the details of SWOT analysis (see Annex-V to PIP) carried out (in terms of methodology used, analysis and information and data as collected and inferences derived with respect to strengths, weaknesses, opportunities and threats).
 - Based on SWOT analysis, provide the “strategic plan” developed for institutional development.
 - How the key activities proposed in the Institutional Development Proposal are linked with the results of SWOT Analysis.
- 4.3 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.
- 4.4 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 50% of the eligible UG and PG programmes accredited within two years of joining the Project and 80% accreditation obtained and applied for by the end of the Project of the eligible UG and PG programmes
 - (e) Implementation of academic and non academic reforms (details given in Annex-I to PIP)
 - (f) Improving interaction with industry
 - (g) Enhancement of research and consultancy activities
- 4.5 Provide an action plan for organising a Finishing School and 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.
- 4.6 Provide an action plan for strengthening of PG programmes and starting of new PG programmes.
- 4.7 Attach a summary of Training Needs Analysis carried out. Also, provide Faculty Development Plan for the first 18 months for improving their teaching, subject area and research competence based on Training Needs Analysis (TNA) (see Annex-VI to PIP) in the following areas.
- Basic and advanced pedagogy
 - Subject / domain knowledge enhancement
 - Attendance in activities such as workshops, seminars
 - Improvement in faculty qualifications
 - Improving research capabilities
- 4.8 Provide an action plan for training technical and other staff in functional areas.
- 4.9 Describe the relevance and coherence of Institutional Development Proposal with State’s/National (in case of CFIs) Industrial/Economic Development Plan.
- 4.10 Describe briefly the participation of departments/faculty in the IDP preparation.
- 4.11 Describe the Institutional project implementation arrangements with participation of faculty and staff.
- 4.12 Provide an Institutional project budget in Table-29.

Table-29

Institutional Project Budget for Sub-component 1.1

[Note: For details of permissible and non-permissible expenditures, please see Table-18 (for Centrally Funded Government funded and aided institutions)]

(Rs. in Crore)

S. No	Activities	Project Life Allocation	Financial year		
			2012-13	2013-14	2014-15
1	Improvement in teaching, training and learning facilities through:				
	(i) Starting new PG programmes				
	(ii) Modernization and strengthening of laboratories				
	(iii) Establishment of new laboratories for existing UG and PG programmes and for new PG programmes				
	(iv) Modernization of classrooms				
	(v) Updation of Learning Resources				
	(vi) Procurement of furniture				
	(vii) Establishment/Upgradation of Central and Departmental Computer Centers				
	(viii) Modernization/improvements of supporting departments				
	(ix) Modernization and strengthening of libraries and increasing access to knowledge resources				
	(x) Minor Civil Works				
2	Providing Teaching and Research Assistantships to increase enrolment in existing and new PG programmes in Engineering disciplines				
3	Enhancement of R&D and institutional consultancy activities				
4	Faculty and Staff Development (including faculty qualification upgradation, pedagogical training, and organising/participation of faculty in workshops, seminars and conferences) for improved competence				
5	Enhanced Interaction with Industry				
6	Institutional Management Capacity enhancement				
7	Implementation of institutional academic reforms				
8	Academic support for weak students				
9	Incremental Operating Cost				
TOTAL					

4.13 Provide the targets against the deliverables listed in Table-30.

Table-30
Project Targets⁵ for Institutions under Sub-component 1.1

S. No	Deliverables	Baseline		Targets to be achieved	
		2010-11	2011-12	At the end of 2 years of joining the Project	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 lakh)				
3	Number of publications in refereed journals a) National b) International				
4	IRG as % of total annual recurring expenditure				
5	Number of co-authored publications in refereed journals a) National b) International				
6	Student credentials a) campus placement rate of • UG students • PG students b) average salary of placement package for (Rs. in lakh) • UG students • PG students				
7	Number of collaborative programmes with Industry				
8	Accreditation status (obtained plus applied for)			Minimum 50% of UG + PG	80% of eligible UG + PG programmes
9	Faculty position filled			For Govt. funded & aided institutions : 70% (with at least 55% on regular appointment and remaining on 11 months or longer contracts) For Private unaided institutions : 100% (with at least 60% on regular appointment and remaining on 11 months or longer contracts)	For Govt. funded & aided institutions : 80% (with at least 60% on regular appointment and remaining on 11 months or longer contracts) For Private unaided institutions : 100% (with at least 70% on regular appointment and remaining on 11 months or longer contracts)
10	Percentage of regular faculty having a Masters Degree or a Doctorate Degree in Engineering disciplines			Increased by 20% and 10% respectively over base line	Increased by 40% and 20% respectively over base line
11	Transit rate from 1 st to 2 nd year for the following: • All Students • SC and ST Students • OBC Students • Women Students				
12	Autonomy status			Required to be obtained	
13	Enrolment of faculty with only Bachelor Degree for qualification upgradation			At least 50% of the faculty with only Bachelor degree at base line at the parent institution or 25% at other institution	
14	Any other academic deliverables (maximum 3)				
	(i)				
	(ii)				
	(iii)				

Note : The accreditation targets for Undergraduate and Postgraduate programme are for **NBA accreditation of programmes.**

4.14 Give an action plan for ensuring that the project activities would be sustained after the end of the Project.

4.15 Provide a Procurement Plan for the first 18 months for Goods and Civil Works in Table-31 and Consultant Services in Table-32 with budget and timeframe.

⁵ These pertain to the entity participating in the Project which may either be the whole stand alone institution or the Faculty / Department / constituent institution of a University or Faculty/Department of a Technical Deemed University.

4.16 Provide any other information related to specific academic achievements of the institution.

Table-31
Procurement Plan for Works and Goods* for Sub-component 1.1

Name of the institution with location: _____

Package No.	SI No.	Activities	Description of Works/ Goods	Estimated Cost (Rs)	Method of Procurement	Design/ Investigation Completion/ Specification Finalization (Date)	Estimate Sanctioned (Date and Value)	Preparation of Bid Document (Date)	Receipt of 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)	(14)

* Goods cover Equipment, Furniture and Books and Learning Resources

** Applicable in case of 'Prior Review' by the World Bank.

Note: For Column 6, state ICB/NCB/Direct Contracting/Shopping method as appropriate

Table-32
Procurement Plan for Consultant Services for Sub-component 1.1

Name of the institution with location: _____

SL No.	Activities	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 the Bank for RFP (Date)**	RFP Issued (Date)	Proposals Received (Date)	Evaluation (Date)	No Objection by the Bank (Date)**	Contract Value and Date of Award	Contract Completion (Date)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)

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

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

** Applicable in case of 'Prior Review' by the World Bank

**TECHNICAL EDUCATION QUALITY IMPROVEMENT PROGRAMME (TEQIP)
(PHASE-II)**

**FORMAT FOR
INSTITUTIONAL DEVELOPMENT PROPOSAL
for**

**Sub-component 1.2: Scaling-up Postgraduate Education
and
Demand-driven Research & Development and Innovation**

1. INSTITUTIONAL BASIC INFORMATION

(Note: Please insert the name of applicant institution and the Sub-component number in the footer on each page of the proposal.)

1.1 Institutional Identity:

- 1.4.1 Name of the Institution : _____
- 1.4.2 Is the Institution AICTE approved? : Yes/No
- 1.4.3 Furnish AICTE approval No. :
- 1.4.4 Type of Institution : Centrally funded / Govt. funded / Govt. aided / Private unaided / Autonomous / Others
- Status of Institution : Autonomous Institute as declared by University / Non-autonomous/Deemed University/Constituent Institution/University Technical Department or faculty or University Constituent College

1.4.5 Names of Heads of Institution and Project Nodal Officers:

Heads and Nodal Officers	Names	Phone Numbers	Mobile Numbers	Fax Numbers	E-mail Addresses
Head of the Institution (Full time appointee)					
TEQIP Coordinator					
Project Nodal Officers for:					
Academic Activities					
Civil Works including Environment Management					
Procurement					
Financial Aspects					
Equity Assurance Plan Implementation					

1.5 Academic Information:

1.5.1 Engineering programmes offered in Academic year 2009-10:

S. No	Title of programmes	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 st March 2010?	Whether "Applied for" as on 31 st March 2010?

- **Accreditation Status of PG programmes:**

Title of PG programmes being offered	Whether eligible for accreditation or not?	Whether accredited as on 31 st March 2010?	Whether "Applied for" as on 31 st March 2010?

1.6 Faculty Status (Regular/On-Contract Faculty as on March 31st, 2010):

Faculty Rank	No. of Sanctioned Regular Posts	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						
		Engineering Disciplines		Other Disciplines		Engineering Disciplines		Other Disciplines		Engineering 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																
Total																

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

1.7 Baseline Data(all data given for the following parameters must be restricted to engineering disciplines/fields only):

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 text books and reference books available in library for UG and PG students in the year 2009-10	
8	% of UG students placed through campus interviews in the year 2009-10	
9	% of PG students placed through campus interviews in the year 2009-10	
10	% of high quality under Graduates (>75% marks) in the year 2009-10	
11	% of high quality postgraduates (>75% marks) in the year 2009-10	
12	Number of research publications in Indian refereed journals in the year 2009-10	
13	Number of research publications in International refereed journals in the year 2009-10	
14	Number of patents obtained in the year 2009-10	
15	Number of patents filed in the year 2009-10	
16	Number of sponsored research projects completed in the year 2009-10	
17	The transition rate of students in percentage from 1 st year to 2 nd year in the year 2009-10 for : (i) all students (ii) SC (iii) ST (iv) OBC	
18	IRG from students fee and other charges in the year 2009-10 (Rs. in lakh)	
19	IRG from externally funded R&D projects, Consultancies in the year 2009-10 (Rs. in lakh)	
20	Total IRG in the year 2009-10 (Rs. in lakh)	
21	Total annual recurring expenditure of the applicant entity in the year 2009-10 (Rs. in lakh)	
22	Number of Joint publications with National authors in the year 2009-10	
23	Number of Joint publications with International authors in the year 2009-10	
24	Number of R&D products commercialized in the year 2009-10	
25	Number of joint MTech programmes with institutions undertaken in the year 2009-10	
26	Number of joint MTech programmes with Industry undertaken in the year 2009-10	
27	Number of joint PhD with institutions undertaken in the year 2009-10	
28	Number of joint PhD with Industry undertaken in the year 2009-10	
29	Number of joint consultancies undertaken with institutions in the year 2009-10	
30	Number of joint consultancies undertaken with Industry in the year 2009-10	

1.5 Institutions to be eligible for participation in the Project under the Sub-component 1.2 must fulfil the following benchmarks:

Table-33
Benchmarks for Institutions to qualify for Sub-component 1.2

S.No.	Eligibility Parameters	Benchmark values
1.	Agreement to implement all academic and non-academic reforms given as below: <ul style="list-style-type: none"> ● Curricular Reforms ● Exercise of autonomies ● Establishment of Corpus Fund, Faculty Development Fund, Equipment Replacement Fund and Maintenance Fund ● Generation, retention and utilization of revenue generated through variety of activities ● Institutions to fill-up all existing teaching and staff vacancies ● Delegation of decision making powers to senior functionaries with accountability ● Improved student performance evaluation ● Performance appraisal of faculty by students ● Faculty incentive for Continuing Education (CE), consultancy and R&D ● Accreditation of UG and PG programmes 	Yes
2.	Autonomous Institution Status by UGC	Yes*
3.	Presence of Board of Governors with an eminent educationist or Industrialist as the Chairperson	Yes**
4.	Percentage of eligible UG programmes accredited plus applied for	60%
5.	Percentage of eligible PG programmes accredited plus applied for	40%
6.	Cumulative number of PhDs produced in the last three academic years (2007-08, 2008-09 and 2009-10) or Cumulative number of MTech produced in the last three academic years (2007-08, 2008-09 and 2009-10)	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 for: a) Govt. funded and Govt. aided institutions b) Private unaided institutions	*** ****
8.	Percentage of regular faculty with PhD in Engineering a. Regular States: Minimum 15% of faculty with PhD in Engineering against total available faculty for Engineering disciplines only. b. Special Category States: Minimum 15% of faculty in Engineering and Basic Sciences with PhD against the total available faculty for Engineering disciplines and Basic Sciences.	15%

* Institutions that have already applied for induction as Autonomous Institution status can also apply. However the selection of such institutions and consequent signing of MoU will be subject to the Institution having actually obtained Autonomous Institution status by UGC.

** **Govt. Funded, Govt. Aided, Private unaided, and University Constituent colleges that are either already autonomous or have applied for autonomous status:** These Institutions will have to have the relevant UGC prescribed BoG structure for Autonomous Institutions.

The Chairperson in all cases has to be an eminent educationist/industrialist (should not be an employee of the institution, a serving Govt. official or an elected peoples' representative).

Deemed-to-be-Universities: To comply with the BoG structure as per UGC Regulation-2010.

University Faculty/Department/Unitary Constituent Institution: The Managing Committee (BoG) structure for the applicant Faculty or Department or Unitary Constituent Institution (where no other engineering constituent institution / department / faculty exists under the same university) to be as per the regulations of respective University as made will be considered eligible.

NITs and CFIs: To comply with the BoG structure as per the Act or the Memorandum of Association as applicable.

*** Minimum 55% regular faculty of the sanctioned strength and a minimum overall faculty strength of 65% including faculty on eleven months or longer duration contract.

These institutions will essentially have to have a minimum of 65% regular faculty as per the AICTE prescribed faculty student ratio (for NITs & CFIs MHRD norms as applicable) within one year of signing of MoU, failing which project funding will be stopped.

**** The Private unaided institutions should have faculty strength as per AICTE approved norms out of which at least 65% should be appointed on regular basis.

Note : In respect of accreditation benchmarks for Undergraduate and Postgraduate programmes in Universities, Deemed Universities, University Constituent Colleges/Faculties/Departments, NAAC accreditation is acceptable at the entry point. However, all such project entities will have to essentially achieve the Undergraduate and Postgraduate programmes targets of **NBA accreditation** as given in Table-35 for Sub-component 1.2.

2. INSTITUTIONAL DEVELOPMENT PROPOSAL (IDP)

- 2.1 Give the executive summary of the IDP.
- 2.2
 - Provide the details (in terms of methodology used, analysis carried out of the data and information collected and inferences derived with respect to strengths, weaknesses, opportunities and threats) of SWOT analysis (see Annex-V of the PIP) carried out.
 - Based on SWOT analysis, provide the strategic plan developed for institutional development.
 - 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 Postgraduate Education and demand-driven Research & Development and Innovation”. These objective and results should be linked to the SWOT analysis.
- 2.4 Provide an action 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 Attach the summary of Training Needs Analysis carried out. Also, provide Faculty Development Plan from the first 18 months to achieve improved competence based on Training Needs Analysis (TNA) in the following areas.
 - 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 project budget in Table No.34.

Table-34
Institutional Project Budget for Sub-component 1.2

[Note: For details of permissible and non-permissible expenditures, please see Table-19 (for Centrally funded, Government funded, Government Aided and Private unaided institutions)]

(Rs. In Crore)

S. No	Activities	Project Life Allocation	Financial year				
			2010-11	2011-12	2012-13	2013-14	2014-15
1	Improvement in teaching, training and learning facilities through:						
	(i) Establishment of new laboratories for new and existing PG programmes, faculty research, etc.						
	(ii) Updation of learning resources						
	(iii) Procurement of furniture						
	(iv) Modernization and strengthening of libraries and increasing access to knowledge resources						
	(v) Civil Works						
2	Providing Teaching and Research Assistantships for significantly increasing enrolment in existing and new Masters and Doctoral programmes in Engineering disciplines						
3	Enhancement of R&D and institutional consultancy activities						
4	Faculty and Staff development for improved competence based on TNA						
5	Enhanced interaction with Industry						
6	Institutional Management Capacity enhancement						
7	Implementation of institutional reforms						
8	Academic support for weak students						
9	Incremental Operating Cost						
TOTAL							

2.13 (a) Provide the targets against the deliverables given in Table 35.

Table-35 : Project Targets⁶ for Institutions under Sub-component 1.2

S. No	Deliverables	Base -line	Targets to be achieved	
			At the end of 2 years of joining the Project	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 lakh)			
3	Number of (a) Research publications in refereed journals • National journals • International journals (b) Citations (c) Patents obtained / filed (d) Books (e) No. of R&D projects commercialized			
4	IRG as % of total recurring expenditure			
5	Number of co-authored publications in refereed journals (a) National (b) International			
6	Student credentials (a) Campus placement rate of • UG students • PG students (b) Average salary of placement package for (Rs. in lakh) • UG students • PG students			
7	Number of collaborative programmes with Industry		At least 2	
8	Accreditation Status (obtained plus applied for)		At least 75% of eligible UG programmes and 60% of eligible PG programmes	At least 85% of eligible UG programmes and 70% of eligible PG programmes
9	Faculty position filled		<u>For Govt. funded & aided institutions:</u> 80% (with at least 70% on regular appointment and remaining on 11 months or longer contracts) <u>For Private unaided institutions:</u> 100% (with at least 70% on regular appointment and remaining on 11 months or longer contracts) (*)	<u>For Govt. funded & aided institutions:</u> 90% (with at least 75% on regular appointment and remaining on 11 months or longer contracts) <u>For Private unaided institutions:</u> 100% (with at least 75% on regular appointment and remaining on 11 months or longer contracts) (**)
10	Percentage of regular faculty with PhD in Engineering disciplines		At least 20% of faculty in engineering discipline	At least 25% of faculty in engineering discipline
11	Any other (maximum three)			
	(i)			
	(ii)			
	(iii)			

* within 2 years of Project start

** to be achieved by Project closure

Note : The accreditation targets for Undergraduate and Postgraduate programme are for **NBA accreditation of programmes.**

(b) Describe the Plan in detail for achievement of the above targets enumerated in Table-35.

2.14 Give an action plan to ensure that the project activities would be sustained after the end of the Project.

2.15 Provide Procurement Plan for the first 18 months for Goods and Civil Works in Table-36 and Consultant Services in Table-37 with budget and timeframe.

2.16 Provide any other information related to special academic achievements of the institution.

2.17 Provide an action plan for organising a Finishing School and 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.

⁶ These pertain to the entity participating in the Project which may either be the whole stand alone institution or the Faculty / Department / constituent institution of a University or Faculty / Department of a Technical Deemed University.

Table-36

Procurement Plan for Works and Goods* for Sub-component 1.2

Name of the institution with location: _____

Package No.	SI No	Activities	Description of Works/ Goods	Estimated Cost (Rs)	Method of Procurement	Design/ Investigation Completion/ Specification Finalization (Date)	Estimate Sanctioned (Date and Value)	Preparation of Bid Document (Date)	Receipt of 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)	(14)

* Goods cover Equipment, Furniture and Books and Learning Resources

** Applicable in case of 'Prior Review' by the World Bank.

Note: For Column 6, state ICB/NCB/Direct Contracting/Shopping method as appropriate

Table-37
Procurement Plan for Consultant Services for Sub-component 1.2

Name of the institution with location: _____

Sl. No.	Activities	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 the Bank for RFP (Date)**	RFP Issued (Date)	Proposals Received (Date)	Evaluation (Date)	No Objection by the Bank (Date)**	Contract Value and Date of Award	Contract Completion (Date)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)

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

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

** Applicable in case of 'Prior Review' by the World Bank

**TECHNICAL EDUCATION QUALITY IMPROVEMENT PROGRAMME (TEQIP)
(PHASE-II)**

**FORMAT FOR
DEVELOPMENT PROPOSAL FOR
Sub-component 1.2.1 : Establishing Centres of Excellence (CoE)
[Applicable for Institutions (CFIs, Govt. funded, Govt. aided and Private unaided)
selected under sub-component 1.2]**

Name of the Institution : _____

Name of the Centre of Excellence to be established : _____

Specific Area(s) of excellence : _____

Note: Institutions desirous for establishing more than one Centre of Excellence should submit the separate proposals accordingly.

PROPOSAL FOR ESTABLISHING A CENTRE OF EXCELLENCE

1. Institutional Identity:

- 1.1 Name of the Institution : _____
- 1.2 Type of Institution : CFI/Govt.funded/Govt. aided/Private unaided/Other
- 1.3 Status of Institution : Autonomous Institute as declared by University/
Non-autonomous/Deemed University/Constituent College
/University Technical Department or faculty or University
Constituent College
- 1.4 Does the Institution have any CoE? : Yes/No
If Yes, write the name of the
Department and specific areas
of excellence _____

- 1.8 Name of the CoE to be established : _____
- 1.9 Specific Area of excellence : _____
- 1.7 Names of Heads of Institutions and CoE Coordinators:

Head and Coordinator	Name	Phone Number	Mobile Number	Fax Number	Email Address
Head of the Institution (Full time appointee)					
CoE Coordinator					

2. Eligibility Criteria:

Institutions to be eligible under the Sub-component 1.2.1 must fulfil the following benchmarks:

Table-38
Benchmarks for Institutions to qualify for Sub-component : 1.2.1

S. No.	Eligibility Parameters	Benchmark values
1	Autonomous Institution Status by UGC	Yes
2	Percentage of eligible UG programmes in the institution accredited or applied for	75%
3	Percentage of eligible PG programmes in the institution accredited or applied for	60%
4	Percentage of regular faculty with PhD in Engineering as percentage of total faculty available in Engineering in the institution	20*
5	Number of sponsored research projects completed in the institution in the last three academic years (2009-10, 2010-11, 2011-12)	07
6	Cumulative number of PhDs produced in the last three academic years (2009-10, 2010-11, 2011-12) in the Departments participating for establishing CoEs	12**
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 in the Departments participating for establishing CoEs	70%

* Institutions having 50% of regular faculty with PhD in Engineering of the total regular faculty in Engineering; out of which 75% in the proposed theme area will be given weightage.

** Institutions having produced 25 Nos. of PhDs in last three academic year will be given weightage.

Note 1 : The benchmarks prescribed for Sub-component 1.2 are deemed to have been met by the applicant Institutions.

Note 2 : Minimum number of participating faculty in the centre – 4.

Note 3 : In respect of accreditation benchmarks for Undergraduate and Postgraduate programmes in Universities, Deemed Universities, University Constituent Colleges/Faculties/Departments, NAAC accreditation is acceptable at the entry point. However, all such project entities will have to essentially achieve the Undergraduate and Postgraduate programme targets of **NBA accreditation** as given in Table-35 of PIP for Sub-component 1.2.

3. Institutional plan for establishing CoE:

- 3.1 Give an Executive Summary of the proposal for establishing CoE.
- 3.2 Provide the details (in terms of methodology used, analysis carried out of the data and information collected and inferences derived with respect to strengths, weaknesses, opportunities and threats) of SWOT analysis carried out.
- 3.3 Provide proof of existing expertise in the area, proof of focused activity towards the desired goals of the CoE (publications, Masters and PhD thesis), and names of participating faculty with level of engagement (in terms of percentage of time to be given to the CoE activity).

Provide specific evidence to the potential economic and social impact that this particular CoE proposal and its partners can bring.
- 3.4 State the specific objectives of the Center of Excellence.
- 3.5 Give a detailed administrative/management and implementation structure to be followed with the hierarchy and the fund-flow chart (reduced administrative hurdles in execution, independence of action to participating faculty in the COE with respect to project related decisions, structure for disbursement of funds to participating faculty for equipment purchase/quality enhancement etc.)
- 3.6 Give the details on engagement of various departments in the institution for CoE activities.
- 3.7 Provide the CV, including the publication list of: (i) the two most important Principal Investigators from the institutions to participate in the CoE; (ii) the three most important researcher from the private sector/knowledge user partners; and (iii) provide the CV of up to 5 other institutional faculty/researchers that will participate in the CoE.
- 3.8 Give an action plan for the proposed research areas and the results to be achieved along with a brief review of literature. These objectives should be linked to the SWOT analysis.
- 3.9 Indicate the collaborative arrangements made/under discussion with industries and research institutions / organizations within India and abroad. **Attach letter of commitment from the collaborating companies/institutions with the list of detailed commitments, including in-cash contributions to the CoE and the rupee value of each major in-kind support.**
- 3.10 Give an action plan for communication to policy makers and potential users of research findings and use of CoE facilities for solving real life problems.
- 3.11 Give an action plan for technology transfer, commercialization of research, or other ways of using the R&D results for economic and social benefit.
- 3.12 Give an action plan for scaling-up PhD & Masters enrolment in the thematic area, and describe other plans for how this CoE will improve quality of education in the institutions, including UG education.
- 3.13 Give a procurement plan for Goods and Consultant Services as per Tables-36 and 37.
- 3.14 Provide budget for establishing Centre of Excellence in Table-39.
- 3.15 Provide the incremental institutional project targets against the deliverables indicated in Table-40 in addition to the targets under Sub-component 1.2 with plan for achieving the same.
- 3.16 Give an action plan on how the institution will ensure that the CoE research activities would be sustained after the end of the Project.

Table-39

Project Budget for Sub-component 1.2.1

Note: For details of permissible and non-permissible expenditures, please see Table-19 (a)

S No	Activities	Project Life Allocation	Financial year (Rs. In crore)		
			2012-13	2013-14	2014-15
1	Improvement in research and development facilities through*:				
	(i) Establishment of new laboratories for applicable thematic research				
	(ii) Establishment of knowledge resource center (Library) in the thematic area				
	(iii) Procurement of furniture				
	(iv) Minor Civil Works				
2	Providing Teaching and Research Assistantships for enrolment in Masters and Doctoral programmes in topics linked to economic or societal needs in the thematic areas				
3	Collaboration with Industry for applicable research and product development				
4	National/International collaboration for Research and Development activities with academic institutions and R&D organizations				
5	Enhancing research competence of faculty and knowledge sharing in thematic areas, both within India and abroad				
6	Incremental Operating Cost				
TOTAL					

* Not applicable for Private unaided Institutions.

Table-40
Incremental Project Targets for Centre of Excellence

Note: These targets are specific to CoE and are thus over and above those for Sub-component 1.2 of the Project.

S. No.	Deliverables	Baseline (2010-11)	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 names of 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)				

Table-41
Procurement Plan for Works and Goods* for Sub-component 1.2.1

Name of the institution with location: _____

Package No.	SI No	Activities	Description of Works/ Goods	Estimated Cost (Rs)	Method of Procurement	Design/ Investigation Completion/ Specification Finalization (Date)	Estimate Sanctioned (Date and Value)	Preparation of Bid Document (Date)	Receipt of 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)	(14)

* Goods cover Equipment, Furniture and Books and Learning Resources

** Applicable in case of 'Prior Review' by the World Bank.

Note: (i) For Column 6, state ICB/NCB/Direct Contracting/Shopping method as appropriate.

(ii) Procurement Plan for Goods Not Applicable for private unaided institutions

Table-42
Procurement Plan for Consultant Services for Sub-component 1.2.1

Name of the institution with location: _____

Sl. No.	Activities	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 the Bank for RFP (Date)**	RFP Issued (Date)	Proposals Received (Date)	Evaluation (Date)	No Objection by the Bank (Date)**	Contract Value and Date of Award	Contract Completion (Date)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)

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

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

** Applicable in case of 'Prior Review' by the World Bank

GUIDELINES ON STRENGTHS, WEAKNESSES, OPPORTUNITIES AND THREATS (SWOT) ANALYSIS

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 and resources 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 for 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 Plan to gain a better perception of ongoing 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 identifying a solution for 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 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 an institution's present situation and whether that institution functions properly or not.

The institution needs 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:
 - Advantages of the institution
 - The activities the institution can plan to do better
 - The relevant resources on which the institution has access to
 - Vision of others about institution's strengths
 - Unique Selling Points (USPs)
 - 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:
 - The possibility of improvements
 - Weak processes and systems and inadequate facilities
 - Lack of competitive strengths
 - Lack of Industry/network partners
 - Plan predictability
 - Financial situation, cash flow and cash-drain of the institution
 - 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) Opportunities: The Opportunities can be identified by thinking in terms of market developments, competitor vulnerabilities, industry trends, and geographical partnerships through the following:

- The good opportunities facing us
- The interesting trends we are aware of
- Technology development and innovation
- Growing student demand
- Increased attraction for qualified future faculty

- Research in niche areas
- Geographical expansion
- Employment and industry trends
- Unique Selling Points (USPs)
- Industry Institution partnership
- Innovations, product development, patent, business development
- 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-term (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 at the present and in future through the following:
- Obstacles faced by the institution - social, political and managerial
 - Doings of the competitors
 - Change in the required specifications for services of the institution
 - Threats of changing technology
 - Declining supply of qualified faculty
 - Loss of key faculty and staff
 - Declining quality of students
 - Difficulty of sustaining internal capabilities
 - Lack of new ideas and access to fast-changing technology
 - Lack of industry-Institution partnership
 - 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 the 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 institution's awareness of them and its development of a strategic plan to use them to its advantage.

GUIDELINES ON TRAINING NEEDS ANALYSIS (TNA)

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. Organizations need to carry it out every year and the training/development plan resulting 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:

- All class IV staff
- All support staff and technical staff
- All faculty (including contractual and ad-hoc)
- All Heads of the Departments and Deans
- All administrative staff (including finance personnel)
- Principal/Director

3. Suggested training domains:

Table-43

Suggested Training Domains for Faculty and Various Categories of Staff

S. No	Staff/Faculty Category	Suggested Areas of Training/Development
1	Class IV Staff	Attitudinal and mind-set change, personality development, motivation
2	Support Staff	Attitudinal and mind-set change, personality development, communication skills, motivation, office modernization, advance learning in their relevant occupational areas, other felt-needs
3	Technical Staff	Attitudinal and mind-set change, Personality development, Communication skills, Motivation, Operation and 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 (pedagogy) processes, Advanced subject knowledge, Advanced R&D activities, lab/workshop development, Quality management, Standard conferences, consultancy, other felt-needs
5	HoD's and Deans	Attitudinal and mind-set change, Personality development, Communication skills, Motivation, Qualification upgradation, Effective teaching – learning (pedagogy) processes, Advanced subject knowledge, Advanced R&D activities, Lab / workshop development, Quality Management, Attachment to industry and premiere R&D organizations, consultancy, Planning and 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, Institutional Development Management, Quality Management, Management Information System, Planning and Implementation, Budgeting and Financial Management, Systems Automation, Management Capacity Development, Human Resource Management, other felt-needs
7	Principal/Director	Institutional Development and Management, Quality Management, Management Capacity Development, Planning and Implementation, Budgeting and Financial Management, Extension of services, Exposure to premiere institutions/Centres of Excellence (National and International), Sustainability strategy, other felt-needs

4. Procedure:

- 4.1 All staff, faculty, Heads of Department/Sections and Institutional Project Coordinator of the institution are required to fill-up a relevant TNA proforma as indicated below:

Table-44
List of TNA proforma for faculty and various categories of staff

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	HoD's 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:

- Institution's Strategic Development Plan
- Institution's (recent) SWOT analysis
- Previous years' Development/Training plans
- Seniors' and/or Peers' feedback
- Students' feedback
- Feedback on previously attended training programmes
- Any other relevant feedback

- 4.3 Each staff member and faculty should analyze his/her current knowledge and skills, and the desired knowledge and 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 should have discussions with their students/peers/seniors/HoD/Principal/Director). While analyzing the training needs, a staff member should 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 will need to submit the duly filled-in TNA proforma indicating training needs along with their development objectives, to the HoD within three weeks.

- 4.4 HoDs should 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 HoD's own training/development needs.

HoDs should 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 approval.

5. Convergence of TNA:

The exercise of TNA at various levels finally converges into an Institutional Training/Development Plan, comprising a short-term (up to three months) training/development plan and a long-term (above three months) Training/Development Plan.

6. Proforma for TNA:

Various proforma are available on NPIU website (www.npiu.nic.in).

GUIDELINES FOR INTERNATIONAL TRAVEL

1. Introduction:

These Guidelines are framed to ensure that all international travel related to the Project are undertaken as per the set procedure as outlined hereunder.

Only the Faculty, Heads of the Departments, Heads and PhD students of the project institutions, State officials handling the Project, Directors of Technical Education, SPFU officials, vice-chancellors of affiliating universities and MHRD/NPIU officials are eligible for international travel under the Project. The purpose of international travel can be:

- a) Presentation of Papers in International seminars, conferences, etc.
- b) Invitation to chair a session
- c) An invitation to deliver a key note address in International seminars, conferences, etc.
- d) Study and networking tour.
- e) Enhancing subject knowledge and research competence.
- f) Collaboration with the organization.

The objective of the International Travel Support Scheme is to enable participants to improve the quality of education at Project Institutions (in the case of academic travel) or the administrative effectiveness of Project Institutions (in the case of Heads of institutions, or state/national officials). Participants therefore will need to show not only what they expect to learn or gain from the international experience but also how that experience will be shared with their institution and result in concrete activities at the institutional level.

2. Institutions Eligibility:

For the faculty of a Project Institution to be eligible for the International Travel, it is mandatory that the institution must at least meet 8 out of 10 Assessment Indicators as given below:

- I. Autonomy obtained or applied for
- II. BoG composition as per the prescribed structure and availability of BoG minutes on the website
- III. Atleast one Mentoring completed and the report submitted
- IV. Atleast one Performa Auditing/Data Auditing completed and the report submitted
- V. 50% of the eligible programmes should have been accredited or applied for accreditation
- VI. Governance Self Review submitted
- VII. Expenditure of atleast 60% against the total funds received
- VIII. 100% Commitment against the total funds received
- IX. Statutory Audit completed (2013-14)
- X. Completed at least 70% data entry in MIS

3. Procedure:

The Concerned Project Institution should prepare international travel plan for Director/ Faculty of the concerned institution, and obtain the approval of the BoG.

Applicants for undertaking International Travel are required to submit a complete proposal along with the enclosures to the SPFU, through the Director of the Project Institution. The achievements in the academic excellence in the lines of the academic grid, with specific contribution of the concerned faculty desirous of availing International Travel facility under the Project be clearly mentioned in the proposal.

Detailed Procedure for approving the International Travel:

Applications from the Institutions meeting 8 out of 10 Assessment Indicators (as given at pt. No. 2) only shall be eligible for International Travel. An undertaking in this regard should be submitted to the SPFU.

A) In case of State Government aided/funded and private unaided institutions:

- The Project Institutions shall constitute an internal scrutiny committee; consisting of senior faculty members. The internal scrutiny committee shall scrutinize the received proposal (format enclosed as Annex-a) and submit the report to the Director, along with the proposals.
- The Director shall forward the proposal to the BoG with his remarks on the findings of the internal scrutiny committee.
- The BoG will accord “**in principle**” approval for the proposal on the basis of scrutiny report and the recommendation of the Director of the Institute.
- The Institute will send the proposal with remarks of the BoG to the SPFU for further processing.
- **SPFU will ensure the eligibility of the institution w.r.t the performance assessment and** scrutinize the received proposal as per the checklist (Annex-b) and submit the proposal with its observation to the “Screening Committee”
(A Screening Committee be constituted by the State Steering Committee (SSC) consisting of senior academicians)
- The screening committee shall evaluate the proposal as per the criteria suggested in Annex-III and advice the State Project Advisor (SPA), at SPFU. If deemed necessary, the Screening Committee may seek opinion from external theme experts before arriving at a conclusion.
- On the basis of advice received from the Screening Committee; the SPA, SPFU shall submit a consolidated report to the NPIU.
- Further, NPIU shall forward the State’s consolidated reports to the MHRD for the approval. The decision of the MHRD will be communicated to the SPFU by the NPIU. SPFU shall further communicate it to the concerned institutions.

B) In case of Centrally Funded Institutions (CFIs):

- **The CFIs TEQIP Unit will ensure the eligibility of the institution w.r.t the performance assessment.**
- The Project Institution meeting the eligibility shall constitute an internal scrutiny committee; consisting of senior faculty members. The internal scrutiny committee shall scrutinize the received proposal (format enclosed as Annex-I) and submit the report to the Institutional TEQIP Unit, along with the proposals.
- The CFIs TEQIP Unit will scrutinize the received proposal as per the checklist (Annex-II) and submit the proposal with its observation and the remarks of internal scrutiny committee to the “Screening Committee”.
(A Screening Committee be constituted by the BoG of the institution consisting of senior external experts)
- The screening committee shall evaluate the proposal as per the criteria suggested in Annex-c and advice the Director of the institution. If deemed necessary, the Screening Committee may seek opinion from external theme experts before arriving at a conclusion.
- The Director shall forward the proposal to the BoG with his remarks along with the remarks of the Screening committee.
- The BoG will accord approval for the proposal on the basis of report of the screening committee and the recommendation of the Director of the Institute.
- The Institute will send the proposal with remarks of the BoG to the NPIU for further processing.
- NPIU shall forward the proposal to the MHRD for the approval. The decision of the MHRD will be communicated to the concerned CFI by NPIU.

4. Important points to be noted:

- The event should be of an international character.
- The applicant should not have availed financial assistance from any other source for the same event.
- Any international tour undertaken without Competent Authority's approval will not be considered a part of the Project and, therefore, expenditure incurred will not be eligible for reimbursement.
- Heads of Institutions will avoid travel during the end of the financial year.
- The period of tours will be limited to seven working days.
- All austerity measures like discount on training fee, accommodation etc. should be availed. The travel will be undertaken only under the available cheapest restricted economy class air fare.
- 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.
- The experience will also be shared with fellow faculty of the institution.

PROPOSAL FOR
INTERNATIONAL TRAVEL
UNDER TEQIP-II

- Name of the Institution : _____
- Project Sub-Component : _____
- Category of the Institution : _____
(CFI/Govt.funded/Govt.
Aided/Private Unaided)

1.

Name of the applicant	:	
Designation	:	
Department	:	

2.

Academic Profile:		
Class/Institution	Year	Subject
UG		
PG		
PhD.		
Post Doctoral		
Any other		

3.

Experience Details:			
Experience	Details	Duration	Name of Employer
i) Teaching			
ii) Research*			
iii) Industry			
iv) Any other			

**Details of research project may be provided separately, if any*

4.

Publications of the applicant during last five years:				
S. No.	Particulars	Year	Nos.	Impact factor
i)	Referred Journals			
ii)	Books			
iii)	Proceedings			
iv)	Popular Articles			
v)	Patents			

5.

Contribution of the applicant in enhancing academic excellence in the institution:			
S. No.	Year	Contribution of the Applicant (during last three years)	
		Project Activities	Institution development activities
	2010-2011		
	2011-2012		
	2012-2013		
	2013-2014		
	2014-2015		

6.

Name of the International Event	:	
Venue & Date	:	

7. **Purpose of the event (put a tick mark against the appropriate place):**

Items	:	Remarks
a) Paper presentation	:	
b) Chairing a Session	:	
c) Keynote Speaker	:	
d) Study & network tour	:	
e) Enhancement of subject knowledge and research competence	:	
f) Collaboration with the organization	:	

8. **Provide write-up on the following (1 page on each) :**

(i)	Focus on International visit on improving the quality of teaching and research (or the institutional effectiveness) of a Institution. Objectives of the visit be clearly mentioned.
(ii)	Benefit to the applicant from the International visit and expected outcome from this visit to the institution.
(iii)	Visit linkage to the Institutional Development Proposal objectives and to the current training needs assessment.
(iv)	Plan of the applicant for sharing the gained information with fellow faculty members.
(v)	Alternative arrangement planned by the applicant about the appropriate continuance of the teaching and research duties during the travel period.

9. **Travel Plan (from the place of working to the conference & back):**

S. N.	Date and Time	Departure	Date and Time	Arrival	Mode

10. **Details of Expenditure :**

Items	:	Remarks
a) Total air fare by shortest route by economy class	:	
b) Visa Fee	:	
c) Amount of registration fee	:	
d) Accommodation and other logistic arrangement	:	

11. **Details of International events attended during last five years (In Chronological order) :**

Name of event	Date	Venue	Details of Sponsors

12. Any other information which you may like to furnish in support of your application.

Place :

(Signature of the applicant)

Date

Encl.: Attach the following enclosures :

- Invitation letters from the institutions/organization to be visited
- Daily schedule of activities to be undertaken
- Availability of budget provisions with break-up of fee charges, accommodation, other logistic arrangements and travel expenses
- International travel plan for faculty of the concerned institution (duly approved by BoG)
- For all project institutions, NOC from BoG for undertaking International travel
- Any other deemed necessary

CHECK LIST FOR SPFU/CFIs

Checklist for the proposals under TEQIP II involving International Travel in respect of
 Dr./Prof/Mr. _____ from
 _____.

1	Name of the participants undertaking the tour with Designation and Contact Number (A brief Bio-Data to be enclosed)	
2	Purpose of the Visit	
3	Place of visit with Contact Details of the institute proposed to be visited (whether Consent Letter has been obtained and attached)	
4	Duration of visit (whether Daily Schedule enclosed)	
5	Date of his/her last foreign visit with duration, name of the institute visited, funding/sponsoring Agency and the purpose of such visit	
6	(i) Relevance of the visit/training to the Project Objectives (ii) Clear Objective and Outcome of the Visit	
7	Amount of expenditure involved in the present proposal (whether break-up attached)	

8	Whether approval of Head of the institute and BOG have been obtained and proof thereof attached	
9	Whether an undertaking has been obtained and enclosed on submission of report in due course on the training to be undertaken and experience to be gained to improve the teaching learning process in the institute	

Signature of TEQIP coordinator

Selection Criteria :The following criteria will be used by the Screening Committee :

S. No.	Particulars	Evaluation Criteria	Points
1	Is the international visit focused on improving the quality of teaching or research (or the institutional effectiveness) of a Project institution?	All the evidence that this criterion has been met is strong and clear	2
		Some of the evidence that this criterion has been met is either weak or unclear or both.	1
		No evidence that this criterion has been met	0
2	Will the applicant benefit from the international visit?	All the evidence that this criterion has been met is strong and clear	2
		Some of the evidence that this criterion has been met is either weak or unclear or both.	1
		No evidence that this criterion has been met	0
3	Is the visit linked to the Institutional Development Proposal objectives and to the current training needs assessment?	All the evidence that this criterion has been met is strong and clear	2
		Some of the evidence that this criterion has been met is either weak or unclear or both.	1
		No evidence that this criterion has been met	0
4	Is the action plan for how the applicant will share the information gained likely to have an impact on others beyond the applicant?	All the evidence that this criterion has been met is strong and clear	2
		Some of the evidence that this criterion has been met is either weak or unclear or both.	1
		No evidence that this criterion has been met	0
5	Has the institution ensured that teaching and research duties will be appropriately continued during the travel period?	All the evidence that this criterion has been met is strong and clear	2
		Some of the evidence that this criterion has been met is either weak or unclear or both.	1
		No evidence that this criterion has been met	0

Note: Applicants will have to get a least one point in each category and get a total of at least 7 points in order for the application to be approved.

**LIST OF CENTRALLY FUNDED INSTITUTIONS AND STATE INSTITUTIONS THAT PARTICIPATED IN
TECHNICAL EDUCATION QUALITY IMPROVEMENT PROGRAMME (TEQIP) PHASE – I**

CENTRALLY FUNDED INSTITUTIONS (18)	
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	Malviya 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 and 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, Karnataka, Surathkal
17	National Institute of Technology, Tiruchirapalli
18	National Institute of Technology, Warangal
STATE INSTITUTIONS (109)	
ANDHRA PRADESH (12)	
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 and Technology, Nandyal
28	Sreenidhi Institute of Science and Technology, Ghatkesar
29	SVU College of Engineering, Tirupati
30	University College of Engineering, Osmania University, Hyderabad
GUJARAT (6)	
31	DD Institute of Technology, Nadiad
32	Dr S&SS Ghandhy College of Engineering and Technology, Surat
33	Government Engineering College, Gandhi Nagar
34	Government Engineering College, Modasa
35	Govt Polytechnic, Ahmedabad
36	LD College of Engineering, Ahmedabad
HARYANA (5)	
37	Deen Bandhu Chottu Ram University of Science and Technology, Murthal
38	Government Polytechnic, Nilokheri
39	Guru Jambheshwar University, Hisar
40	Kurukshetra University, Kurukshetra
41	YMCA Institute of Engineering, Faridabad

HIMACHAL PRADESH (3)	
42	Government Polytechnic for Women, Kandaghat
43	Government Polytechnic, Hamirpur
44	Government Polytechnic, Sundernagar
JHARKHAND (4)	
45	Birla Institute of Technology, Mesra
46	BIT, Sindri
47	Government Polytechnic, Dumka
48	Government Polytechnic, Ranchi
KARNATAKA (14)	
49	Basaveswara College of Engineering, Vidyanagar Bagalkot
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	The National Institute of Engineering, Mysore
55	NMAM Institute of Technology, NITTE, Udupi
56	Poojya Doddappa College of Engineering, Gulbarga
57	Shri Dharmasthala Manjunatheshwara College of Engineering, Dharwad
58	Shri Jayachamarajendra College of Engineering, Mysore
59	Siddaganga Institute of Technology, Tumkur
60	Sri Siddhartha Institute of Technology, Tumkur
61	University BDT College of Engineering, Davangere
62	University of Vishweshwaraiah College of Engineering, Bangalore
KERALA (5)	
63	College of Engineering, Chengannur
64	College of Engineering, Trivandrum
65	LBS College of Engineering, Kasaragod
66	Model Engineering College, Kochi
67	Sree Chitra Thirunal College of Engineering, Trivandrum
MADHYA PRADESH (7)	
68	Jabalpur Engineering College, Jabalpur
69	Kalaniketan Polytechnic, Jabalpur
70	Rajiv Gandhi Proudhyogiki Vishwavidyalaya, Bhopal
71	Rewa Engineering College, Rewa
72	Sardar Vallabh Bhai Polytechnic College, Bhopal
73	Shri GS Institute of Technology and Science, Indore
74	Ujjain Engineering College, Ujjain
MAHARASHTRA (17)	
75	College of Engineering, Pune
76	DKTE Society's Textile and 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	Mumbai University Institute of Chemical Technology, Mumbai
86	Shri Guru Gobind Singhji Institute of Engineering and Technology, Vishnupuri, Nanded
87	Shri Sant Gajanan Maharaj College of Engineering, Shegaon

88	Veermata Jijabai Technological Institute, Matunga, Mumbai
89	Vishwakarma Institute of Technology, Pune
90	Walchand College of Engineering, Sangli
91	Yeshwantrao Chavan College of Engineering, Nagpur
TAMIL NADU (11)	
92	AC College of Technology, Chennai
93	Alagappa Chettiar College of Engineering and Technology, Karaikudi
94	Central Polytechnic College, Tharamani, Chennai
95	College of Engineering, Guindy, Chennai
96	DD Govt Polytechnic College for Women, Tharamani, Chennai
97	Government College of Engineering, Salem
98	Government College of Engineering, Tirunelveli
99	Government College of Technology, Coimbatore
100	Madras Institute of Technology, Chennai
101	Tamil Nadu Polytechnic College, Madurai
102	Thanthai Periyar Govt Institute of Technology, Vellore
UTTAR PRADESH (10)	
103	Bundelkhand Institute of Engineering and Technology, Jhansi
104	Dr Ambedkar Institute of Technology for Handicapped, Kanpur
105	Harcourt Butler Technological Institute, Kanpur
106	Institute of Engineering and Technology, Lucknow
107	Integral University, Lucknow
108	Kamla Nehru Institute of Technology, Sultanpur
109	Madan Mohan Malviya Engineering College, Gorakhpur
110	Shri Ram Murthi Smarak College of Engineering and Technology, Bareilly
111	United College of Engineering and Research, Allahabad
112	Uttar Pradesh Textile Technology Institute, Kanpur
UTTARAKHAND (4)	
113	Dehradun Institute of Technology, Dehradun
114	Government Polytechnic, Dehradun
115	Govind Ballabh Pant Engineering College, Paurigarhwal
116	Govind Ballabh Pant University of Agriculture and Technology, Pantnagar
WEST BENGAL (11)	
117	Asansol Engineering College, Asansol
118	Bengal Engineering and Science University, Howrah
119	Government College of Engineering and Ceramic Technology, Kolkata
120	Government College of Engineering and Textile Technology, Serampore
121	Haldia Institute of Technology, Haldia
122	Institute of Engineering and Management, Kolkata
123	Jadavpur University, Jadavpur
124	Jalpaiguri Govt Engineering College, Jalpaiguri
125	Kalyani Government Engineering College, Kalyani
126	Netaji Subhash Engineering College, Kolkata
127	University College of Technology, Calcutta University, Kolkata

Legend : Lead Institutions are shown in bold.

GUIDELINES ON INDUSTRY-INSTITUTION-INTERACTION CELL (I-I-I-C)

1. Objective:

To explore and identify common avenues of interaction with Industry as per the requirements of the institution.

2. Scope:

All the institutions covered under the Project will form Industry-Institution-Interaction Cell (I-I-I-C) to establish purposeful interaction between Industry and institution.

For the Cell to function smoothly and to meet its objectives effectively, I-I-I-C must have some core staff. The core staff should include a Coordinator (not less than an Assistant Professor) from the institution who will be assisted by a Project Assistant and an Office Assistant. The Cell should meet at least twice per semester. The proposed composition of the Cell is as following:

- | | | |
|---|---|----------|
| a) Director/ Principal of the institution | - | Chairman |
| b) HOD and one faculty from each department | - | Member |
| c) Two Members from Industry/ Entrepreneurs of the region | - | Member |
| d) Training and Placement Officer | - | Member |
| e) Coordinator of the Cell | - | Convener |

3. 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. The Government organizations in the region also can participate in the Industry-Institution-Interaction-Cell.

4. Suggested Activities under IIIC:

- a) 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.
- b) To conduct Industrial Training, Orientation Courses, Industrial Visits etc for faculty and students at regular intervals.
- c) To facilitate joint research work, consultancy involving faculty and students.
- d) To conduct industrial exhibitions to highlight research facilities and expertise available with the institution.
- e) To facilitate professionals from Industry to work 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.
- f) To seek and associate Experts from Industry in Curriculum Development and review.
- g) To identify Continuing Education opportunities, short-term programmes and training needs of the Industry, which the institution can provide.
- h) To promote revenue generating activities for the institution like Lab Testing, Calibration, consultancy and R&D etc.
- i) 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.

5. Deliverables:

I-I-I-C will be responsible for the following deliverables:

- Increase in collaboration with Industry
- Increased rate of campus placement of students
- Increase in industrial training for students arranged by institution
- Absorption of students by same industries providing industrial training
- Increase in IRG by collaborating with Industry
- Increase in utilization of institutional resources by Industry
- Increase in solving the real life problems of the region

SCHEMES FOR PROPOSAL EVALUATION

Table-45

(A) Scheme for Evaluation of State Proposals

S. No	Evaluation Parameters	Marks
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	10
2	Evidence that the State's participation in the Project is linked to its policy objectives for Technical Education	10
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	10
4	Understanding of the underlying rationale for granting institutions increased autonomy as required in Eligibility Criterion 1	10
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	10
6	Demonstration of intent to establish a governance model that will assure accountability towards Government, Civil Society, and Industry	10
7	Demonstration that the structure of the Board of Governors reflects the requirements set forth in Section-5	10
8	Evidence that the State has identified, understood and discussed with key stakeholders the main steps and challenges for implementation of the required reforms	10
9	Evidence of full understanding and commitment of the rationale for granting institutions increased Financing and Administrative Autonomy	10
10	Evidence that the State has a plan to sustain the gains of the Project after it has been closed	10
Total Marks		100

Table-46

(B) Scheme for Evaluation of Institutional Eligibility Proposal (IEP) under Sub-component 1.1

S No	Evaluation Parameters	Marks	
A	Institutional Information		
	1	Clarity and adequacy of institutional basic information	10
B	Quality of SWOT Analysis		
	1	Appropriateness of the procedure adopted for the conduct of SWOT analysis and adequacy of participation of stakeholders	10
	2	Clarity in the identification of strengths, weaknesses, opportunities and threats	10
C	Clarity in identification of objectives and feasibility of the action plan to implement the institutional project		
	1	Clarity in the identification of general development objectives, related specific objectives, their expected results, and coherence with SWOT analysis	10
	2	Have the key activities been identified clearly and adequately for each specific-objective	10
	3	Are the schedules for activities realistic	10
D	Implementation of reforms		
	1	Institution's capability to meet the key challenges for obtaining Autonomous Institution status and exercising of the granted autonomy	10
	2	Institution's capability to meet the key challenges for obtaining accreditation of programmes	10
	3	Quality of the action plan to utilize the block grant effectively and efficiently	10
	4	Quality of the plan to increase the institution's non-tuition revenue	10
Total Marks		100	

Table-47

(C) Scheme for Evaluation of Institutional Development Proposal (IDP) under Sub-component 1.1

S. No.	Evaluation Parameters		Marks	
I	Institutional Preparedness and Implementation Feasibility			
	A	Clarity of institutional basic information including baseline data	5	
	B	Quality of SWOT analysis		
		1	Appropriateness for the procedure adopted for the conduct of SWOT analysis and adequacy of participation of stakeholders	5
		2	Clarity in the identification of strengths, weaknesses, opportunities and threats	5
	C	Overall implementation feasibility of institutional project		
		1	Clarity in the identification of general development objectives, related specific objectives, their expected results, and its coherence with SWOT analysis	5
		2	Have the key activities been identified clearly and adequately for each specific-objective	5
		3	Adequacy of the Institutional Project Implementation arrangements	5
	D	Coherence of proposal with State's/regional development plan	5	
Sub-total (I)			35	
II	Clarity and Quality of the Action Plans for:			
	E	Implementation of reforms		
		1	Quality and adequacy of proposed actions for obtaining autonomous institutional status and for exercising of the granted autonomy	5
		2	Quality and adequacy of proposed actions for obtaining accreditation of UG & PG programmes	5
		3	Quality and adequacy of action plan to implement all the academic and non-academic reforms	5
	F	Improving learning outcomes of students in terms of higher pass rates and higher academic achievements	10	
	G	Identification of weak students and for improvement in their learning outcomes through finishing school	5	
	H	Improving employability of graduates	5	
	I	Strengthening of existing PG programmes and starting new PG programmes	5	
	J	Faculty development including pedagogical training to:		
		1	Develop faculty/technical staff in subject domain	5
		2	Improve pedagogical skills of faculty for better student learning	5
	K	Enhanced interaction with industry	5	
Sub-total (II)			55	
III	Faculty Qualification & Status			
L	Quality of faculty (faculty with PhD & Masters degree as percentage of total faculty)	5*		
M	Status of faculty (faculty on regular appointment as percentage of total faculty)	5**		
Sub-total (III)			10	
TOTAL (I+II+III)			100	

* less than 40%=0, 41-49=1, 50-59=2, 60-69=4, 70 and above = 5 marks

** less than 50%=0, 50-59%=1, 60-69%=2, 70-79%=3, 80% and above = 5 marks

Table-48

(D) Scheme for Evaluation of Institutional Development Proposal (IDP) under Sub-component 1.2

S. No	Evaluation Parameters	Marks		
I	Institutional Preparedness and Implementation Feasibility			
	A	Clarity of institutional basic information including baseline data	5	
	B	Overall proposal implementation feasibility		
		1	Clarity in the identification of general development objectives, related specific objectives, their expected results, and its coherence with SWOT analysis	5
		2	Have the key activities been identified clearly and adequately for each specific-objective	5
		3	Adequacy of the Institutional Project Implementation arrangements	5
	C	Quality of SWOT analysis		
		1	Appropriateness for the procedure adopted for the conduct of SWOT analysis and adequacy of participation of stakeholders	5
		2	Clarity in the identification of strengths, weaknesses, opportunities and threats	5
	D	Coherence of proposal with State's/regional development plan	5	
	E	Reasonability of proposed budget	5	
Sub-total (I)		40		
II	Clarity and Quality of the Action Plans for:			
	F	Scaling-up research and innovation		
		1	Quality of action plan for quantitatively increasing and qualitatively improving research activities	5
		2	Quality of action plan to transfer technology and for commercialization of R&D (the innovation agenda)	5
	G	Scaling-up PhD enrolment through existing and new programmes	10	
	H	Scaling-up enrolment into Masters programmes in existing and new programmes	10	
	I	Research collaborative activities with Institution at National and International level		
		1	Identification of options to improve and increase research collaborations at National and International levels	5
		2	Clarity in identification of expected quality enhancement in Masters and doctoral programmes and faculty research	5
	J	Potential impact and depth of proposed Industry collaboration	5	
	K	Faculty development including pedagogical training to:		
		1	Develop faculty/technical staff in subject domain	5
		2	Improve pedagogical skills of faculty for better student learning	5
L	Identification of weak students and for improvement in their learning outcomes through finishing school	5		
Sub-total (II)		60		
TOTAL (I+II)		100		

Table-49

(E) Scheme for Evaluation of Institutional Development Proposal (IDP) under Sub-component 1.2.1

S. No	Evaluation Parameters	Marks		
I	Implementation Feasibility			
	A	Overall proposal implementation feasibility		
	1	Appropriateness of choice of the thematic and specific areas of CoE with respect to strengths and opportunities identified in SWOT analysis	5	
	2	Appropriateness of the specific objectives identified for CoE	5	
	B	Institutional preparedness		
	1	Adequacy of involvement of various departments for CoE activities	5	
	2	Faculty Qualification and PhDs produced: <ul style="list-style-type: none"> • 50% of regular faculty with PhD in Engineering of the total regular faculty in Engineering; out of which 75% in the proposed theme area • 25 number of PhDs (Cumulative) produced in the last three academic years (2009-10, 2010-11, 2011-12) in the Departments participating for establishing CoEs 	5	
	3	Quality of faculty in terms of credentials and achievements to be associated with CoE	10	
	4	Adequacy and quality of collaborative arrangements and clarity of responsibilities as given in MoUs with Industries / research institutions / organizations within India and abroad	10	
	C	Reasonability of proposed budget	5	
	Sub-total (I)		50	
	II	Clarity and Quality of Action Plans for :		
		D	establishment of CoE in terms of physical arrangements and working arrangements	10
		E	conducting research and obtaining results in the identified thematic areas	10
F		communication of research findings to policy makers and potential users	5	
G		commercialization of research results	5	
H		scaling-up PhD and Masters enrolment in thematic areas	10	
I		insuring sustenance of CoE after the end of the project	10	
Sub-total (II)		50		
TOTAL (I+II)		100		