## 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:
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• 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

• 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					

#### 1.2 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 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?

#### 1.3 Faculty Status (Regular/On-Contract Faculty as on March 31<sup>st</sup>, 2010)

Faculty Rank	r Posts		D	octor			ighes		alifica	in Pos		achel	or	faculty		ract	
Italik	l la		[	Degree		De		egre	egree		Degree			lar	S S	ion	
	No. of Sanctioned Regular Posts	Engineering Disciplines		Other Disciplines		Engineering Disciplines		Other Disciplines		Engineering Disciplines		Other Disciplines		Total Number of regular faculty in Position	Total Vacancies	Total Number of contract faculty in Position	
	No.	R	С	R	С	R	С	R	С	R	С	R	С	Tota		_	
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.	Parameters	
<b>No.</b> 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 <sup>st</sup> year to 2 <sup>nd</sup> 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)  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 fulfill the following benchmarks:

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

S. No.	Attainment Parameters	Bench- mark values	Institution's response (Yes/No)
1.	Does the institution agree to implement all academic and non-academic reforms given as below:  Implementation of 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  Improve student performance evaluation  Improvement performance appraisal of faculty by students  Provide faculty incentive for Continuing Education (CE), consultancy and R&D	Yes	
2.	<ul> <li>Obtaining accreditation</li> <li>Availability of academic autonomy as recognized by UGC for both UG and PG programmes</li> </ul>	Yes	
3.	Presence of Board of Governors with an eminent academician or industrialist as the Chairperson	Yes	
4.	Percentage of eligible UG programmes accredited or applied for	60%	
5.	Percentage of eligible PG programmes accredited or applied for	40%	
6.	Cumulative number of PhDs produced in the last three academic years (2007-08, 2008-09 and 2009-10)  or	5	
	Cumulative number of MTech produced in the last three academic years (2007-08, 2008-09 and 2009-10)	50	
7.	Faculty positions filled on regular full time basis as percentage of total faculty positions sanctioned in accordance with the AICTE prescribed student to faculty ratio	65%	
8.	Percentage of regular faculty with PhD in engineering* as percentage of total faculty	15%	

Note: In respect of accreditation benchmarks for Undergraduate and Postgraduate programmes in Universities, Deemed Universities, University Constitute Colleges/Faculties/Departments, NAAC accreditation is acceptable at the entry point. However, all such project entities will have essentially to achieve the Undergraduate and Postgraduate programmes targets of <a href="NBA">NBA</a> accreditation as given in Table-30 for Sub-component 1.1 & Table-35 for Sub-component 1.2.

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<sup>\*</sup> For Special Category States, the desired levels is faculty with PhD in Engineering and Sciences disciplines as percentage of total faculty

#### 2. INSTITUTIONAL DEVELOPMENT PROPOSAL (IDP)

- 2.1 Give the executive summary of the IDP.
- 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,
  - o 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.
  - o 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-18 (for Government funded and aided institutions) and Table-19 (for private unaided institutions)

(Rs. In Crore)

		1				Rs. In	/
S.	Activities			Fi	nancia	al year	
No		Project Life Allocation	2010-11	2011-12	2012-13	2013-14	2014-15
1	Infrastructure improvements for teaching, training and learning 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) Refurbishment (Minor 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 Targets<sup>5</sup> for Institutions under Sub-Component 1.2

S.	Deliverables	Base-	Targets to be	achieved
No.		line	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			
7	Number of collaborative programmes with Industry		At least 2	
8	Accreditation Status (obtained and applied for)		At least 75% of eligible UG programmes and 60% of eligible PG programmes	100% for UG and PG programmes
9	Vacancy position for faculty and staff		Vacancy reduced to 5% or less	Zero vacancy
10	Percentage of regular faculty with PhD in Engineering disciplines		At least 20%	At least 25%
11	Any other (maximum three)			
(i)				
(ii)				
(iii)				

(Note : The accreditation targets for Undergraduate and Postgraduate programme are for <u>NBA</u> <u>accreditation of programmes</u>.)

- (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.

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<sup>&</sup>lt;sup>5</sup> 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
18-month Procurement Plan for Works and Goods\* for Sub-Component 1.2

Name of the institution with location:

					_	ion	(i	ē	No nt		Bids	-	no
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)**	Invitation (Date)	Opening (Date)	Contract Award (Date/ Value)	Date of Completion of Contract
1	2	3	4	5	6	7	8	9	10	11	12	13	14
1													
2													
3													

<sup>\*</sup> Goods cover Equipment, Furniture and Books and Learning Resources

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

<sup>\*\*</sup> Applicable in case of 'Prior Review' by the World Bank.

Table-37
18-month Procurement Plan for Consultant Services for Sub-Component 1.2

Name of the institution with location: \_\_\_\_\_

SI. 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

<sup>♦</sup> RFP (Request for Proposal): Same as 'Bid Document' #Technical and Financial

<sup>\*\*</sup> Applicable in case of 'Prior Review' by the World Bank

<sup>@</sup> 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.