

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

**FORMAT FOR
INSTITUTIONAL DEVELOPMENT PROPOSAL**

For

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

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

1. INSTITUTIONAL BASIC INFORMATION

(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 : University Institute of Technology, University of Burdwan.
- Is the institution AICTE approved? : Yes (Please see annexure-1 for AICTE approval)
- Furnish AICTE approval no. : No. 750-80-127(E)/ET/2000
dt.2.5.2008(CSE,ECE,IT & AEIE)
: No. 750-80-127(E)/ET/2000
dt.28.6.2008 (CE and EE)
- Type of Institution : Autonomous (University Department)
(Please see annexure-2 for Certification for truthfulness of data)
- Status of Institution : Autonomous
- Name of Head of Institution and Project Nodal Officers: (Please see annexure-3 , for appointment letter of the Head of the Organisation)

Head & Nodal Officer	Name	Phone Number	Mobile Number	Fax Number	E-mail Number
Head of the Institution(Full time appointee)	Prof. S.K.Sarkar Vice Chancellor, University of Burdwan.	0342-2634900		0342-2530452	vc@buruniv.ac.in
TEQIP Co-ordinator	Prof. B.K.Pramanik	0342 2558776/77	9433314708	0342 2558777	bibhas_pramanik@rediffmail.com
Project Nodal Officers for:					
Academic Activities	Prof. Sauvik Bhattacharya	0342 2558776/77	9434170440	0342 2558777	souvik.bha@gmail.com
Civil Works Including Environment Management	Prof. Aparna Roy	0342 2558776/77	9434468526	0342 2558777	aparnauit@gmail.com
Procurement	Prof. Saumik Ghosh	0342 2558776/77	9474490214	0342 2558777	soumik_wiz@yahoo.com
Financial Aspects	Prof. Partha Pratim Sarkar	0342 2558776/77	9434313986	0342 2558777	pratim34@gmail.com
Equity Assurance Plan	Prof. Partha Das	0342 2558776/77	9432540066	0342 2558777	uitpartha@rediffmail.com

implementation					
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1.2. Academic Information

- Engineering Programmes offered in Academic year 2009-10

S. No.	Title of Programme	Level (UG, PG, PhD)	Duration (years)	Year of starting	AICTE Sanctioned Annual intake	Total student Strength
1	B.E. in CSE	UG	4 years	2000	60	237
2	B.E. in ECE	UG	4 years	2000	60	244
3	B.E. in IT	UG	4 years	2000	60	219
4	B.E. in AEIE	UG	4 years	2003	60	223
5	B.E. in CE	UG	4 years	2008	60	125
6	B.E. in EE	UG	4 years	2008	60	124

- Accreditation Status of UG Programmes: (Please see annexure-4 for NBA accreditation certificate)

Title of UG Programmes being offered	Whether eligible for Accreditation or not	Whether accredited as on 31st Dec. 2009	Whether "Applied for" as on 31st Dec. 2009
B.E. in CSE	YES	YES (Accredited on 16/04/2009 for three years through letter no. F.No. NBA/ACCR-1030/2008 dated May 25,2009)	NA
B.E. in ECE	YES	YES (Accredited on 16/04/2009 for three years through letter no. F.No. NBA/ACCR-1030/2008 dated May 25,2009)	NA
B.E. in IT	YES	NO	NO
B.E. in AEIE	YES	NO	NO
B.E. in CE	NO	NA	NA
B.E. in EE	NO	NA	NA

- Accreditation Status of PG Programmes: PG programme not yet started.

Title of PG Programmes being offered	Whether eligible for Accreditation or not	Whether accredited as on 31st Dec. 2009	Whether “Applied for” as on 31st Dec 2009
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1.3. Faculty Status (Regular/On-Contract Faculty as on March 31st, 2009)

(Please see annexure-5 for list of faculties, department-wise & annexure-5a for faculty group)

Faculty Rank	Number of Sanctioned Regular Post	Present Status : Number in Position By Highest Qualification												Total Number of Regular Faculty in Position	Total Vacancies	Total Number of contract Faculty in Position
		Doctoral Degree				Masters Degree				Bachelor Degree						
		Engg. Disciplin		Other Disciplin		Engg. Disciplin		Other Disciplin		Engg. Disciplin		Other Disciplin				
		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	8	5*				1				N	I	L		6	2	NIL
Asso Prof										N	I	L				
Asst Prof	19	1+1*				2				N	I	L		4	15	
Lec	49	1+2*		2		31+2*		3	1	N	I	L		41	8	1
Total	76	10		2		36		3	1	N	I	L		51	25	1

Prof = Professor, Asso Prof = Associate Professor, Asst Prof = Assistant Professor, Lec = Lecturer, R=Regular, C = Contract. * University Faculty Deputed.

Remarks :

- (1) Six faculty members(4 Professors + 2 Asst. Professors) from sister departments of the University take classes regularly for the associated subjects.
- (2) In addition to the above regular and contractual faculties, sixteen visiting faculties have taken regular classes during the last semester(Jan-2010 to June-2010).
- (3) Appointment letters for seven more regular faculties(Lecturer) have been issued and all of them have joined by 20th August, 2010.

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 2009-2010	1320
2.	Total women students in all programmes and all years of study in the year 2009-2010	264
3.	Total SC students in all programmes and all years of study in the year 2009-2010	174
4.	Total ST students in all programmes and all years of study in the year 2009-2010	33
5.	Total OBC students in all programmes and all years of study in the year 2009-2010	**
6.	Number of fully functional P-4 and above level computers available for students in the year 2009-2010	450
7.	Total number of Text books and Reference books available in library for UG & PG students in the year 2009-10	17865
8.	% of UG students placed through campus interviews in the year 2009-10	52%
9.	% of PG students placed through campus interviews in the year 2009-10	N.A
10.	% of High quality under graduates (>75% marks) passed out in the year 2009-10	34%
11.	% of High quality post graduates (>75% marks) passed out in the year 2009-2010	N.A
12.	Number of research publications in Indian refereed Journals in the year 2009-10	03
13.	Number of research publications in International refereed Journals in the year 2009-10	103
14.	Number of Patents obtained in the year 2009-10	Nil
15.	Number of Patents filed in the year 2009-10	One
16.	Number of sponsored research projects completed in the year 2009-10	One
17.	The transition rate of students in percentage from 1st year to 2nd year in the year 2009-10 for : (i) All student (ii) SC (iii) ST (iv) OBC	72.12% 64.5% 62.4% ----**
18.	IRG from student fee and other charges in the year 2009-10 (Rs. In lacs)	490.70
19.	IRG from externally funded R&D projects, consultancies in the year 2009-10 (Rs. In lakh)	0.83
20.	Total IRG in the year 2009-10 (Rs. In lacs)	491.53
21.	Total annual recurring expenditure of the applicant entity in the year 2009-10 (Rs. In lacs)	107.22*

*other than faculty salary which is paid by the University of Burdwan.

**As per record OBC is not separately recorded

**Please see annexure-6 (Total students, department wise, with breakup of SC, ST, OBC),
Annexure-7 (Total students placed in the year 2009-10)
Annexure-8 (list of papers published in national & international journals)
Annexure-9 (list of high quality under-graduates having >75% overall marks)
Annexure-10(list patents filed/received)
Annexure-11(List of sponsored research project)
Annexure-12 (transition rate of 1st year students in 2009-10)
Annexure-13(IRG from students fees and other charges)
Annexure-14(IRG from externally funded R&D projects and consultancies)**

2. INSTITUTIONAL DEVELOPMENT PROPOSAL (IDP)

2.1 Give the executive summary of the IDP (maximum ½ page)

The institutional development plan (IDP) is designed for the improvement of quality of Technical Education and to enhance existing capacities of the institution to become more dynamic, demand-driven, quality conscious, efficient, forward looking, responsive to rapid economic and technological developments occurring at the National as well as International levels. It has a clear focus on the objectives to improve the overall quality of Engineering Education. The Development plan is prepared keeping in mind the objectives of Strengthening institutions to produce high quality Engineers for better employability, Training of faculties & other Staff for effective Teaching, and Enhancing Institutional and System Management effectiveness.

The IDP is prepared on the basis of strategic plan(Sl. No.2.2b) of the organization to meet the objectives of TEQIP-II for sub-component 1.1 as well as Vision and Mission of the Organization. To formulate the strategic plan, present SWOT analysis(Sl. No. 2.2a) of the Institution is used which is prepared after compilation of the observations and findings identified by the stakeholders at different levels and executed at departments under reform and supporting departments. The long term and related short term objectives (Sl. No. 2.3) are listed on the basis of strategic plan and key activities are derived to meet those objectives. The action plans (Sl. No. 2.4a to 2.4g) for different key activities are time scaled throughout the project period. Implementation steps for the equity action plan (EAP) through finishing school and starting of new PG programmes are planned in time scale (Sl.No. 2.5 & 2.6). Summary of training need analysis and detailed plan for training of faculties and other technical and non-technical staff for first 18 months are given in item with Sl. No. 2.7 & 2.8. The IDP has been made relevant and prepared in consonance with the state Industrial and Economic policy (Sl.No. 2.9). For preparation of IDP and its execution throughout project period and sustenance beyond project period, all the stakeholders in the organization are involved through institutional TEQIP unit approved by BOG. (Sl. No. 2.10, 2.11 & 2.14). The targets against each deliverables (Table-30) will be achieved if action plans are rightly followed in proper time frame.

The fund requirement for this development project is Rs 10.0 crores budgeted in table-29. More than 75% of the project cost will be utilized for direct improvement of infrastructure for teaching, training and learning, providing teaching and research assistantship and training of faculties, staff and management.

2.2 Provide the details of SWOT analysis (See Annexure-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).

Methodology of SWOT analysis.

The SWOT analysis is made in the following steps. In the first step committees have been formed Department wise involving the key stakeholders of the organization to carry out the consultations/brainstorming. The committees are formed involving students, faculty and staff.

Each committee from their brainstorming sessions, determined the most important Strengths, Weaknesses, Opportunities and Threats, and prioritized the actions. The internal Strengths and Weaknesses as well as the external Opportunities and Threats identified separately by each group are brought together by a central committee formed with the head of the Organization, Departmental Heads and Conveners of each committees to discuss among the all stake holders to finalize the key findings.

Thus SWOT analysis of the Institute has been carried out in the form of a pyramid with a broad base involving all the stake holders and then the top with the apex body. **The no. of student participants at the base is 200 (Ten from each batch of each stream) and faculty and staff participant is 40 (five from each department, and five from office and administration.)**

Institutional Vision, Mission & Quality Policy :

Vision :

To create an institution for higher technical education, dedicated to the cause of developing professional with high sense of ethical values and commitment to the society, where students shall realize their potentials and learn to be future torch bearers of evolving technologies, through inculcation of proper attitude, appropriation of traditions and heritage, and fostering of originality, so as to be capable of functioning without being influenced by malice of caste, creed, political and religious dogmas.

Mission:

To impart quality professional/technical education to students, inculcating in them National/Global perspective, leadership attitude, entrepreneurship, co-operative spirit, cultural outlook, ethical values, social responsibilities and healthy habits so as to contribute to the technological, economical and social development of the region, the state and the country and to create the ambience of excellence, inspiring value based education, research and development.

Quality Policy :

We at UIT are committed to ensure high standards to educate enrich and excel in imparting professional education by top quality faculty who endeavor to mould the students into quality professionals through team-work, innovation and research.

Details of Departmental SWOT analysis :

SWOT analysis is made in The Departments under reform and the supporting departments. The Departments under reform in the institute are :

Department of Electronics and Communication Engineering.

Department of Computer Science and Engineering.

Department of Applied Electronics and Instrumentation Engineering.

Department of Information Technology.

The supporting Departments are :
Department of General Science & Engineering.
Department of Electrical Engineering.

In addition to these Departments, SWOT is made in Administrative office and Accounts Department.

Compiling and analyzing all the observations and analysis made by the individual departments the issues which are Institution specific and agreed by the majority of stake holders are given below as key findings.

Key Findings :

STRENGTHS: The Strengths identified in terms of capabilities, recognition, competitive advantages, resources (including human resources), assets, innovative aspects, marketing, quality of programmes, location, accreditations, qualifications, certifications, and processes/systems are given below.

- a) **50% of the eligible programmes already NBA accredited.** Many of the faculties are well conversant with the accreditation process.
- b) **High quality of students and faculty:** Students intake quality improving year by year (last rank of WBJEE admitted in 2009 for CSE : 9864, ECE :5164, AEIE : 9386, IT : 19342, EE : 5903 & CE :6315) and intake capacity is almost 100%.
- c) **All faculties possess minimum MTech/M.E.** degree and their retention is good, five years on an average. The University has taken a policy decision that the minimum qualification for the lecturer must be M.Tech. or M.E.
- d) **Success rate** in first chance throughout the four years curriculum is more than 80% for last three batches and for SC/ST candidates it is almost at par with the general candidates. Girls students on the whole perform better than boys. Transition rate for 1st year students is more than 70%.
- e) **A dedicated training & placement cell with TPO** for engineering students over and above the placement cell of the University for other Departments.
- f) **More than 80% of students on an average got employment** through campus in IT and Core industry sectors in the Blue Chip companies like BEL, JINDALS, IBM, TCS, INFOSYS, WIPRO, COGNIZENT etc. during the last three years.
- g) **Provision for exemption of tuition fees** for meritorious as well as needy students(10-12)%.
- h) **The system for individual counseling** through mentoring system and arrangement of make-up classes for academically weak students is already available.
- i) Seminars/ Conferences organized in the Departments regularly (around fifteen in last three years)
- j) **Standard Faculty appraisal by students** followed once at the end of each semester.
- k) **Many faculties are pursuing PhD (Seven Nos).** Faculties have published around 43 papers in last three years in refereed journals. There is provision of weekly off to the faculties for doing PhD programs.

- l) **Continuous evaluation through two mid term examinations** and assignments are carried out meticulously.
- m) **Sufficient no of well equipped Labs.** like System programming Lab, Microprocessor Lab, Microwave Lab, Process Control Lab, etc. available with safety and security arrangements in the Departments. Good amount of expenditure made to support research works and to teach subjects beyond syllabus.
- n) **Library facilities** available in Department, Institute(15000 volumes) and University level(200000 volumes).
- o) **Internet and Generator facilities** available in Departments and extended to hostels.
- p) **Language lab.** to improve communication and soft skill of the students for better employability.
- q) **Computing facility** in 1:1 ratio and a good no of computers (450) connected through LAN with internet.
- r) **Hostel facility** available for more than 70% of students and at least 80% for girls students.
- s) **Play grounds, Gymnasium, Health Centers, Guest House, Auditorium, ATMs, Banks, Post Offices** very closely available.
- t) **NSS, E-Cell, Renewable energy club, Alumni cell, Cultural and Sports cell,** etc. are working effectively.
- u) **Culture of resource sharing** with other Departments already exists.
- v) **Favourably located** about 100 km from Kolkata well connected by road/rail/air.

WEAKNESSESS: The Weaknesses are 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. These are given below.

- a) **Master Degree Programme** :M.E. programs could not be initiated till now. In University other department one ME course is conducted in Electronics with specialization in Microwave Electronics.
- b) **Faculty recruitment** for the newly started streams is to be expedited.
- c) **Systematic training for faculties,** supporting and administrative staff is to be strengthen.
- d) **Facilities and equipment** : the current facilities are overcrowded. Some laboratories like VLSI Lab., Analytical Instruments Lab., Robotics Lab., Multimedia Lab., Bio-Medical Instrument Lab, Integrated Electronics Lab. etc. need to be strengthened further.
- e) **Teaching aids and Information access facility** needs improvement. Wi-Fi system to be installed in the campus.
- f) **In adequate central computing facility** and less number of seminar halls and meeting rooms.
- g) **Limited nos. of externally funded sponsored projects** (two nos.) are running in the Departments.
- h) **Involvement of industry** in updating course curriculum. Sufficient no of Industry experts can not be induced in the BOS to improve and modify the syllabus keeping in mind the specific industry needs.
- i) **Revenue generation through consultancy** projects sponsored needs considerable improvement.

- j) **Overloading of teaching staff:** teaching staff is currently overloaded due to many unfilled vacancies resulting in a high student/teacher ratio.
- k) **Co-curricular activities:** while some effort has been made at introducing management components and some personality development components into the curriculum, much more remains to be done to arrive at a complete, balanced and dynamic curriculum that includes personal and collective growth processes, leadership training, exposure to industrial processes and consultancy and service to the community
- l) **Utilization and flow of information:** the systematic generation, analysis and utilization of information on the institutes' activities, outputs and impacts must be improved.
- m) **Administrative systems and procedures:** this includes heavy bureaucracy and administrative delays, inefficiencies in administrative support systems, systems for staff recruitment and training, systematic performance evaluation, and maintenance procedures.

OPPURTUNITIES: The Opportunities identified by in terms of market developments, competitor vulnerabilities, industry trends and geographical partnerships are listed below:

- a) **Enough space for expansion** in case of market development in new areas for UG and PG courses.
- b) **Low level of R&D in the industry:** Capability for and total spending on R&D in the industry is very low compared to international standards. So Industry is very much dependent on R&D activities in academic field. This situation can boost the collaborative research & development activities.
- c) **Greater tendency for outsourcing by the industry:** this offers an increased scope for providing consultation, training and innovative developments.
- d) **Government policies** that favour industry/education interaction, autonomy with accountability, multidisciplinary approaches and increase in research capacity.
- e) **Increasing awareness of and demand for higher education:** this creates a demand for high quality courses, informed selection of institutions based on their performance, demand for web-based information on the institution and its services and willingness to undertake post-graduate studies and pay higher fees for quality education.
- f) **Scope for opening new PG courses** including courses in cutting edge technologies like Nano-Technology, VLSI, Embedded Systems, Software Engineering etc.
- g) **Scope for enlarging Network partnership** with NIT- Durgapur, BESU, Jadavpur & Calcutta University etc.
- h) **Market demand of good employable engineers increasing day by day** particularly in software industry as well as in core-industry which attracts better students in Technology faculty of the University.
- i) **Scope for availing research project fund from Govt. of India** in different departments.
- j) **The Institute is located in most important industrial agricultural district of West Bengal.** This provides ample scope for resource generation by giving consultancy to rural technology and core industry.
- k) **Scope for improvement in Internet Bandwidth in collaboration with Universities** dedicated VSAT & WiFi..

THREATS: Threats are 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 may be potentially damaging immediately and in future and are indicated below:

- a) **Speedier modification of curriculum** keeping pace with fast changing technology and the Industrial need.
- b) **Overemphasis on campus placement by the students**, parents and society is likely to become serious deterrent to provide knowledge based education to the stake holders – the primary object of the University.
- c) **Variability in employment of the students due to market fluctuations** is a de- motivating factor to many a students.
- d) **Obsolescence of computers & costly lab. equipment** is a serious threat as rapid replacement and repair is difficult.
- e) **Limited availability of senior regular as well as visiting faculties** in districts away from A-class cities.
- f) **Limiting government regulations and practices** in the areas of autonomy, staff recruitment, tuition fees, and admission requirements.
- g) **Increased availability of other attractive employment opportunities:** especially in the IT and communications industry that causes bright minds to select other career options.
- h) **Foreign universities attracting students abroad** : Good quality meritorious students leave country for higher education that creates gap in the country.
- i) **Similar sub-standard courses started by other institutions** creates confusion and reduces the standard of education.

2.2b Based on SWOT analysis, provide the strategic plan developed for Institutional development.

Depending on SWOT analysis and objective of the project the Institution has taken a strategic plan for Institutional development. The strategic plan is prepared to meet the project objective utilizing the strength and unique selling factors of the Institute, removing each weakness, exploiting the opportunities and defending the threats. This is given below.

Strategic Plan

The elaboration of vision statements as well as the above assessments of current strengths and weaknesses and opportunities and threats in the environment of the institute now naturally lead to the identification of the main strategic directions that will have to be pursued over the next four years in order to move the institute closer to its vision. The eight strategic directions that have been retained for the development of University Institute of Technology, University of Burdwan, over the next 4 years and more are summarized in details.

Strategic Directions:

1. **HUMAN RESOURCES:** Commencement of Master degree programme and substantial increase in the production of post-graduates capable of leading the creation of sustainable

and cost-effective innovations for the industry and society as well as becoming a good teacher for future sustenance of such project. (Refer Key findings Strength: a, b, c, & d, Weakness: a, b, c, &g, Opportunities : a, b, c, d, e, f & l, Threat :b, e &g.)

2. **EXCELLENCE:** Achievement of leadership in the development of selected emerging technologies to meet national economic, social and environmental needs. (Refer Key findings Strength: c, k & m, Weakness : a, c, h & l, Opportunities : a, b, c, d, e &g, Threat : g & h.)
3. **QUALITY:** The creation of complete professionals through upgrading of curriculum, faculty and staffing patterns, facilities, equipment, learning resources and communication systems of the institute. (Refer Key findings Strength: b, d, m, n, o, p, q & u, Weakness : b, c, d, e & j, Opportunities : a, d & g, Threat : e & j)
4. **SOCIAL JUSTICE:** Special attention to and active promotion of the full participation of women and socially disadvantaged groups. (Refer Key findings Strength: g & h, Opportunities : d)
5. **AUTONOMY:** Achievement of academic, managerial, administrative and financial autonomy.
6. **ORGANIZATION:** Development of the organizational culture of the institution in the direction of increased administrative systemization, performance, efficiency and team work.
7. **OUTREACH:** Increased public visibility, networking and outreach of the institute to the community and industry.
8. **EQUITY ACTION PLAN :** To ensure that all students and faculty in the Project Institution have equal opportunity to avail of the benefits of the project with substantial improvement in the performance of the weak students. (Refer key findings Strength : d, g, h & l.)

These strategic directions reflect two main thrusts:

The increased orientation of the institution towards social responsibility, reflected in the selection of its research priorities, in the nature of its training program, in the composition, size and quality of its student body, in its special attention to the full participation of women and socially disadvantaged groups, in its partnership with network institutions, in its direct services to the community and industry and in implementing the equity action plan .

The increased viability of the institution, as reflected in its pursuit of autonomy, the enhancement of organisational effectiveness and efficiency, and increased networking and public visibility.

2.2c How the key activities proposed in the Institutional Development Proposal are linked with the results of SWOT Analysis.

The key activities derived from short term as well as long term plans of the organization are formulated in a way such that the strengths can be properly utilized, weakness can be

removed, opportunities can be exploited and threats can be overcome. The institutional development proposal is planned on the Vision, Mission and Quality policy of the Institution and the Project objective. The key activities derived from the strategic plan of the organization are linked with the **Key Findings of SWOT analysis** as per following table.

Key activities	Strength	Weakness	Opportunities	Threats
To apply for NBA accreditation for rest eligible programmes within next six months.	a to v (all points)	b, c, d, e, f,	i,	
To procure more teaching aids for model class rooms in the Departments.		e	a	
To establish Information access facility through Wi-Fi in the campus.	o	f, l, e	k	
To establish a big Central computing facility.	q,	f,		d,
To strengthen and upgrade different laboratories like VLSI Lab., Robotics Lab., Multimedia Lab., Bio-Medical Instrument Lab, etc. with a thrust on emerging areas like thin film technology, nano-technology, VLSI, Embedded systems, Mobile Communication, CAD/CAM, Very High Voltage applications etc. and removal of obsolescence like old generation microprocessors, TTL logic gates, Vacuum Tube Technology etc.	m,	d, g,	a, i, f	
Creating centralized digital library facility with emphasis on e-learning techniques.	h,	e,	e,	
Creation of a centralized instrumentation facility with sophisticated and sensitive equipments that are relevant to different specializations.	m,	d,	c, i, b,	
Procurement of Furniture.		a, d, e, f		
To recruit new faculties in both junior and senior levels to uplift present regular faculty strength of 69% to 100% within two years from project implementation,	c,	j, a, b	c, e, f, i,	e,

if not earlier.				
To arrange planned training on subject domain and pedagogy.	j,	c,	e,	
To arrange sufficient in-house or out of the Organization training for the support & administrative staff.		c,		
Regular revision of curricula and syllabi to keep pace with the emerging trends in technology.	a, c, d, f, i,	a,	f,	
To improve the placement rates of weaker students through soft skill development/Language training.	f, e, h,	k,	c,	
To identify academically weak students by proper students' performance evaluation.	h, l,			
To provide benefit to the academically weaker students by taking remedial classes, tutorials, to bring these students to required level of proficiency.	h, l,			
To implement socially relevant projects for the benefit of SC/ST, backward classes and minorities.	t, n	i, g, k		
To make campuses physically and socially gender friendly; especially by providing adequate and suitable facilities to women students and faculties.	h,			
More adoption of wide ranging activities like concession of tuition fees, in-campus accommodation, scholarships etc. to ensure increased participation of women in technical education.	g,			
To apply for at least two Master Degree Engineering Programme (Master in Software Engineering, VLSI Technology or Process Control) by end of 2010.	a, c, e, m, n, u,	a, b	a, b, c, e, f, h	e, h, i
To increase Consultancy projects sponsored by private & public sectors	c, k, m, u,		b, c, d, g, i, j	

for more revenue generation.				
Enhancement of facilities for research and development to augment postgraduate and doctoral level studies, which in turn will open up new areas for providing consultancy and carrying out industrial testing.	a, c, m, n, q, u	a, b, d, e, f	a, b, c, d, f, g, i,	e, h, i
To train the faculty and technical staff in advance institutions/organizations of the country/abroad for up gradation of subject knowledge and research competence after conducting rigorous TNA.	c, e, j, k,u	c,	g, j	h, e
More participation in Seminars, Conferences, Workshops etc. by faculties and staff.	i, u	J, k, l,	g,	h,
Faculty incentive for Continuing Education (CE), Consultancy and R &D.	j, k			e, g, h
Institutional Management Capacity Enhancement through TNA.	u	K, c		
Performance appraisal of faculty by students.	j			
To act as a hub of continuing and entrepreneurial activities.	t, u, v		d, j	
Establishing linkages with academic and research institutions and industry.	u, v	d, g, h, l	g, j, k	e,
To attract more Industry experts to teach students on subjects beyond curriculum.	i,	h, i, c, k, l	j,	c,
Refurbishment (Minor Civil Works).		a,	a, f, I,	

2.3 State the specific objectives and expected result of your proposal in term of, “Institutional strengthening and improvements in employability and learning outcomes of graduates”. These objective and results should be linked to the SWOT analysis.

The project will be focused on the following general objectives and specific objectives. The general objectives of the proposal are decided on the basis of SWOT analysis and design of the project. The specific objectives are derived from general objectives to decide the action plans.

General Objective:

- a) Generation and dissemination of knowledge through analysis, experimentation, imagination and innovation for strengthening Institution to produce high quality engineers for better employability.

Specific objectives:

- Improvements in teaching, training, and learning facilities,
- Improving learning outcomes of the students,
- Improving employability of graduates,

General Objective :

- b) Creating awareness and understanding, improving skills and value orientation for globalized knowledge-based society by providing training to faculties and other staff.

Specific Objective :

- Faculty and Staff development for improved competence based on Training Needs Analysis (TNA),
- Modernization and strengthening of libraries and / or increasing access to knowledge resources,
- To establish new labs and research activities in the field of emerging technologies,

General Objective :

- c) To establish more responsive management of University for academic up-liftment through efficient utilization of resources.

Specific Objectives:

- Institutional management capacity enhancement through training need analysis (TNA),,
- To provide more administrative power to HODs,
- To increase financial and other autonomy in all level,

General Objective:

- d) From a University with potential for excellence, to become a partner of the network institutes of excellence.

Specific Objective :

- Starting new PG programmes,
- Providing assistance ships, and enhancement of research and consultancy activities,
- Increasing interaction with industry for R&D, consultancy, training, joint project etc.,
- Increasing interaction with nearby NITs, Universities, Research Institutes for knowledge and resource sharing

General Objective :

- e) Implementation of academic and non-academic reforms.

Specific Objective :

- Obtaining autonomous institution status within 2 years
- Achieving targets of 60% of eligible UG programmes within 2 years and 100% by the project end.
- Organising finishing school for implementation of equity action plan.
- More academic support to weaker students,
- More academic and administrative support to SC/ST, Physically disabled & girl students,
- Proper Exercise of autonomy,
- Proper use of block grants,

2.4 Provide an Action Plan for : (max 1 page each)

(a) Improving employability of graduates Improvement of employability of graduate engineers is one of the Project Goals and it is measured in terms of employment rate and salary package received. From several survey reports on employment scenario it is observed that though there is huge unemployment in India, at the same time there is also a good gap of employable engineering graduates. As per opinion of big employers, engineering graduates coming out from different technical Institutions are not capable enough to meet their specialized needs. This is because of several reasons. Most of the fresh engineering graduates do not have the capability to work in national or international level because of their limited language skill. At the same time they do not possess other soft skills to work as a part of a team to achieve success through unified effort. Furthermore most of the fresh engineering graduates are not well aware about the business activity of different employers and Govt. policies that control the business results.

For today's competition in business world, employers always like to get job ready engineers who can deliver with a minimum training support. They like engineers who are realistic and who have a logical approach to solve a business problem. In most of the academic institutions, efforts are given on delivering the course materials and on assessment over the curriculum. Now the situation demands more. So at present in addition to the course curriculum enough industry exposure through industry visits, trainings, doing industry oriented projects etc is very much needed. The action plan to meet this extra need is given below.

Activity	Project Months															
	1-3	4-6	7-9	10-12	13-15	15-18	19-21	22-24	25-27	28-30	31-33	34-36	37-39	40-42	43-45	46 to Project end
To identify academically weak students through result analysis																
To take remedial classes and to provide more academic supports to such students.																
To identify students with poor communication skills..																
To take special care for such students.																
To arrange industry visits in regular interval.																
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.																
To seek and associate Experts from Industry in Curriculum Development and review.																
To arrange industry oriented projects																
To arrange soft skill development training.																
To arrange mock tests to identify the progress																

(b) Increased learning outcomes of the students.

Increased learning outcome of the students is measured by the transition rate from one semester to next higher semester particularly from 1st semester to 2nd semester as the transition rate is most poor at this level. Normally students face most difficulty in 1st semester because of a sudden change of academic standard including subject patterns. At this level students need special care from the Institutions as well as parents to cope up with this change in academic standard as well as environment and social obligations. To obtain increased learning outcomes from the students, several actions can be taken.

Increased learning outcome of the students depends on intake students quality, quality of teaching, course curriculum, available teaching and learning resources in the organization, good teaching and learning process including proper evaluation and monitoring system, learning environment etc. To obtain sustained increased learning outcome from the students, all the above factors should be meticulously maintained by the Institution. The following is the action plan throughout the project period to obtain increased learning outcome of students.

S. NO	Activity	Project Months																		
		1-3	4-6	7-9	10-12	13-15	16-18	19-21	22-24	25-27	28-30	31-33	34-36	37-39	40-42	43-45	46-Project end			
1	To attract more & more meritorious students by providing benefits and generating results.	<div></div>																		
2	Updating course curriculum in tune with the advancement of the subjects.	<div></div>																		
3	Generation of more teaching facilities like teaching aids, books & journals etc.	<div></div>																		
4	Connection of high speed internet line in campus and extended to hostels.	*																		
5	Connection of Wi-Fi line in campus.?	<div></div>																		
6	To establish good quality computer centre.	<div></div>																		
7	To establish e-library for access of students.	<div></div>																		
8	To provide more advanced subject oriented training to the faculties and technicians.	<div></div>																		
9	To provide pedagogical training to faculties.	<div></div>																		
10	To take special care of weak students	<div></div>																		
11	To introduce better academic system for delivering lectures/tutorials as well as assessment of the students.	<div></div>																		

*Already available

(c) Obtaining autonomous institution status within 2 years.

University of Burdwan is an autonomous body as per UGC guidelines. The University Institute of Technology is an undergraduate engineering faculty of the University. It already has autonomous status and academic, administrative, financial and managerial decisions are taken at the University level only. The issue of autonomy is not fully applicable in case of University Institute of Technology, University of Burdwan. The BOG, (Executive Council in case of Burdwan University) has already given Managerial Autonomy, Administrative Autonomy, Financial Autonomy & Academic Autonomy to the Principal of University Institute of Technology to some extent. The capacity is also partially extended to the Departmental Heads, Faculties & Officers of the organization. At present academic matters are controlled by the Board of Studies (BOS) and Principal is the chairman of BOS. Heads and faculties are members of this board. There are invited members as experts from the other Universities and Industries. The Administrative, Managerial & Financial power is also delegated to the Principal as well as HODs, faculties & officers to some extent. To get the full autonomy in all respects within the stipulated period of two years Managerial, Administrative, Academic & Financial power is to be increased to the extent as per guideline of UGC.

(d) Achieving the targets of 60% of the eligible UG & PG programmes accredited within two years of joining the Project and 100% accreditation obtained and applied for by the end of the Project of the eligible UG & PG programmes.

The Institution has already got NBA accreditation for a period of three years for two programmes namely Electronics and Communication Engineering and Computer Science and Engineering. Other two eligible programmes namely Information Technology and Applied Electronics and Instrumentation Engineering are in the process of submission of application to the AICTE. The main challenges for getting accreditation for rest two eligible programmes are

1. To recruit more faculties in the departments to maintain AICTE norms
2. To recruit more senior faculties to maintain cadre ratio
3. To increase nonrevenue earnings in the departments
4. To get more sponsored projects in the departments
5. To provide more consultancy and R&D support to industry
6. To increase interaction with industry for R&D, consultancy, training, joint project etc.,

The University is already in the process of enhancing capacity of the University Institute of Technology through appointment of faculties, setting up of new laboratories, generation of improved teaching methodologies, establishment of new R&D facilities through sponsored projects etc. The action plan for accreditation of at least 60% of eligible programmes within 2 years and rest within project period is given below.

S. NO	Activity	Project Months													
		1-3	4-6	7-9	10-12	13-15	16-18	19-21	22-24	25-27	28-30	31-33	34-36	37-39	40-42
															46 to Project end
1	To submit the application for NBA accreditation of IT & AEIE programmes.														
2	To recruit more faculties in the departments to maintain AICTE norms														
3	To recruit more senior faculties to maintain cadre ratio														
4	To add more laboratory facilities in the Departments														
5	To provide more consultancy and R&D support to industry.														
6	To increase interaction with industry for R&D, consultancy, training, joint project etc.														
7	To increase nonrevenue earnings in the departments														
8	To get more sponsored projects in the Depts.														
9	To submit application to renew already accredited programmes.														

(e) Implementation of academic and non academic reforms (details given in Annex-I to PIP)

Academic and non-academic reforms which are to be implemented throughout the project period are as per following.

- (1) Exercise of autonomies like Managerial Autonomy, Administrative autonomy, Financial Autonomy and Academic Autonomy.
- (2) Governance system with participation of stakeholders..
- (3) Use of Block Grant.
- (4) Establishment of four Funds like Corpus Fund, Faculty Development Fund, Equipment Replacement Fund & Maintenance Fund.
- (5) Revenue Generation.
- (6) Filling-up Faculty and Staff Vacancies.
- (7) Student Performance Evaluation.
- (8) Performance appraisal of faculty by students and faculty counseling.
- (9) Faculty Incentives for Continuing Education, Consultancy, Research and Development, etc.:

The implementation schedule is given below.

S. NO	Activity	Project Months																	
		1-3	4-6	7-9	10-12	13-15	15-18	19-21	22-24	25-27	28-30	31-33	34-36	37-39	40-42	43-45	46 to Project end		
1	Exercise of Managerial autonomy																		
2	Exercise of Administrative autonomy																		
3	Exercise of Financial autonomy																		
4	Exercise of Academic autonomy	*																	
5	Establishment of a Governing system																		
6	Use of block grant																		
7	Establishment of Corpus fund	*																	
8	Establishment of faculty development fund	*																	
9	Establishment of maintenance fund	*																	
10	Establishment of eqpt. replacement fund	#																	
11	Revenue Generation																		
12	Filling up faculty and staff vacancies																		
13	Student Performance Evaluation	*																	
14	Performance appraisal of faculties by students.	*																	

15	Faculty incentives for continuing education.	#																	
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*exists # partially exists

(f) Improving interaction with industry.

The university of Burdwan has active Industry Institute Partnership Cell for quite some long time (more than ten years). University Institute of Technology has its' active participation to this IIPC cell for last six years. Regular interactions with Employers, Industry Associations (CII, Bengal Chamber of Commerce etc.), Business Promoters including Banks and entrepreneurs are made under the Chairmanship of the Vice Chancellor of the University. Industry fares, career counseling meets, Soft skill development training by Industry people, entrepreneurship skill development activities etc. are regular activities in the University as well as in the Institute. Still there are lot of scopes for further improvement of interaction with industry in the following way. The steps and implementation plan is given in the following table.

S. NO	Activity	Project Months																
		1-3	4-6	7-9	10-12	13-15	15-18	19-21	22-24	25-27	28-30	31-33	34-36	37-39	40-42	43-45	46 to Project end	
1	To assess periodically the scientific and technological scenario in India and abroad in order to translate it into action for taking up future R&D work.																	
2	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.																	
3	To conduct Industrial Training, Orientation courses, Industrial Visits etc for faculty and students at regular intervals.																	
4	To facilitate joint research work, consultancy involving faculty and students.																	
5	To conduct industrial exhibitions to highlight research facilities and expertise available with the institution.																	
6	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.																	
7	To seek and associate Experts from Industry in Curriculum Development and review.																	
8	To identify Continuing Education																	

	opportunities, short-term programmes and training needs of the Industry, which the institution can provide.																		
9	To promote revenue generating activities for the institution like Lab Testing, Calibration, consultancy and R&D etc.																		

(g) Enhancement of Research and Consultancy activities.

University Institute of Technology as a part of University of Burdwan already possesses a good infrastructure and environment for continuing research works and consultancy activities. All the faculties of the Institute being the Master degree holders in Engineering or Science, a good proportion of faculties are already PhD holder and most have PhD registration in different Universities. As regional Engineering College Durgapur (Presently NIT, Durgapur) was under the University of Burdwan as the Engineering Faculty, sharing of Infrastructure and research facility is very much done since the Inception of the University Institute of Technology. Few faculties are also the Co-guide of PhD students registered under different Universities like Jadavpur University, University of Calcutta, BESU etc. So there exist a direct and indirect networking with different Universities, NITs and IITs for research activities. For

further enhancement of research and consultancy activities, the University is thinking in the following way.

S. NO	Activity *	Project Months											
		1-3	4-6	7-9	10-12	13-15	15-18	19-21	22-24	25-27	28-30	31-33	34-36
1	Identifying Industry sponsored thrust areas and faculty to be associated with.												
2	Research competence up gradation training for the faculties												
3	Identifying products, patents, publications etc. and to make technology transfer tie-up.												
4	Networking with Institutes of repute at the National and International level.												
5	To execute collaborative research within or outside the institute/university.												
6	To establish R&D centre to trigger R&D culture amongst faculties.												
7	To arrange financial incentives for increased research activities and productivity.												
8	To establish MOU with neighboring institutes on collaborative projects.												
9	Invitation of high level professors and researchers for specialization teaching.												
10	To encourage International benchmarking such as citation indices and patents.												

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

It goes without question that quality manpower feeds and nourishes industries and augments the economy's growth. What is therefore needed is to create a bank of skilled hands who can be directly absorbed to the industry. Achieving quality standards in employability has fuelled

the setting up of the Finishing School in an emerging institute viz., University Institute of Technology, Burdwan University. It is hoped that this venture will go a long way in remedying the perplexing problem faced by the students of UIT; of not being able to secure full employment in spite of brilliant technical and analytical credentials . We have got a Language Lab, by installing sophisticated instruments/ software etc. and by imparting training to the faculties we can develop a very useful Laboratory for developing the soft skills of the students .In the boys' and girls' hostels we can set up a micro language lab with few computers and other peripherals which may help the students out for practicing conversation, GDs, developing oratory skills etc. We can also take the help of professionals for conducting training programmes for soft skill development like practicing for mock interviews, GDs, leadership training etc.

Action plan for improving the academic performance of SC/ST/OBC/Academically weak students & organising Finishing School are as FOLLOWS:

SL. NO	Activity	Project Months															
		1-3	4-6	7-9	10-12	13-15	15-18	19-21	22-24	25-27	28-30	31-33	34-36	37-39	40-42	43-45	46 to Project end
1	To arrange Remedial classes throughout academic sessions																
2	To give assignments & industry oriented projects																
3	To install more sophisticated instruments / software in the Language Lab																
4	To conduct specialised soft skills & professional skills development trainings																
5	To construct micro –language labs in the hostels for regular practice of conversation and development of soft skills																
6	To conduct high intensity training for unemployed students																
7	To organise campus interviews																
8	To provide e-learning facilities in the hostels																
9	To provide additional books																

2.6 Provide an Action Plan for strengthening of PG programmes, if any and starting of new PG Programmes.

University Institute of Technology, The University of Burdwan is going to start two PG programs namely i) M.E in Computer Science & Engineering (Specialisation in Information Technology) and ii) M.E in Electronics and Instrumentation Engineering (Specialization in VLSI Technology/Embedded System/Sensors & Transducers) by 2011. Resolution has been already taken at the executive council and the Institution is in the process of submission of application to AICTE. Some steps have been taken through appointment of faculties, decision for setting up of new laboratories, generation of improved teaching methodologies, establishment of new R&D facilities through sponsored projects etc. **The objective of those M.E. Program are to prepare professionals with advanced knowledge of the respective field who can serve industry, R&D organizations and can take up an academic career, including further studies in a relevant Ph. D Program.** All M. E Programs are designed to cover core/compulsory as well as elective subjects to advance knowledge, ability and skills of the students in their chosen area. Students can take the desired electives from the set of subjects offered from time to time to enable them to cater for their interest and to specialize in a particular field. Project and Thesis work are spread over the last two semesters, which provide ample opportunity to the student to carry out intensive work on a chosen topic resulting in an innovative and research oriented output. Seminars are included in the Program to develop presentation skills in the students.

M. E. (Computer Science & Engineering): This Program has been designed by keeping balanced emphasis on theoretical computer science, computer technology, software engineering, and applications of computing. The program provides advanced level education in areas like Algorithms and Data Structures, Software Engineering, Learning Sciences & Technology, High Performance Computer Architectures, Computer Networking, Complexities and Coding Theories, Information Security, Internet and Web Technologies, Computer Graphics, Image Processing, Information Systems, Data Ware Housing & Mining, Data Base Management, Operating Systems, Computational Models, Cognitive Science, Soft Computing and Human Computer Interaction.

A total number of 20 seats are proposed to be admitted to the 1st year class of PG in the Academic Session **2011-12** with the approval from the AICTE. These students would follow the Academic curricula of the University of Burdwan. Although the teachers: students' ratio is sufficient in the concern department but if required the adequate help can be available from the University Faculty, there will be no dearth of teachers for taking the classes for the students. In addition to the University faculties 3 or 4 new faculty members will be recruited solely for the PG purpose if the permission from the AICTE is received. Beside the existing laboratory available in CSE and IT Department it has been decided 3 new laboratories namely Computer Vision Lab, Advance Computing Lab and a Project/Research Lab for the PG students will be setup well in advance, so that students does not have to face any problem.

M.E. (Electronics & Instrumentation Engineering): Progress in engineering and technology implies an increase in automation which means demand on instrumentation. Sensors and transducers are used in automation in construction, domestic appliances, industries, transport, space exploration, defence equipment, health services and other applications. Hence the

syllabus have been framed keeping in mind the today' world where technologies grow at a fast pace.

This Program has been designed by keeping balanced emphasis on theoretical classes as well as laboratory classes. The syllabus is framed containing modern theoretical papers such as Advanced control system, Advanced sensor, Fuzzy logic, Artificial Neural network, Microelectronics & VLSI Technology , Embedded System, Advanced biomedical Instruments etc. and the laboratory papers such as Advanced control system lab, Advanced sensor lab, Fabrication lab, VLSI Lab., Biomedical lab etc.

A total number of 18 seats are proposed to be admitted to the 1st year class of PG in the Academic Session **2011-12** with the approval from the AICTE. These students would follow the Academic curricula of the University of Burdwan. Although the teachers students' ratio is sufficient in the concern department but if required the adequate help can be made available from the University as ME(Microwave) is already conducted by the University. So there will be no dearth of teachers for taking the classes for the students. In addition to these faculties 3 or 4 new faculty members will be recruited solely for the PG purpose if the permission from the AICTE is received. Besides the existing laboratories available in AEIE and ECE Department it has been decided 5 new laboratories namely Advanced control system lab, Advanced sensor lab, Microelectronics & Fabrication lab, Biomedical lab and a Project/Research Lab for the PG students. These will be setup well in advance, so that students does not have to face any problem. The action plan for starting new PG programme is given below.

SL NO	Activity	Project Months (Assuming project months starting from Jan. 2011)																
		1-3	4-6	7-9	10-12	13-15	16-18	19-21	22-24	25-27	28-30	31-33	34-36	37-39	40-42	43-45	46 to Project end	
1	To formulate the curriculum for new PG programmes.																	
2	To setup class rooms, faculty rooms etc. for new PG programmes.	*																
4	To setup new laboratories for P.G Program except Project and Research lab																	
5	To recruit new faculty members & additional support staff especially for PG program.																	
6	To purchase new books and other learning resources especially for PG program.																	
7	To setup project and research laboratories.																	
8	To start admission of 1st semester students.																	

9	To commence classes for the PG programmes.																		
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*Already available.

2.7 Attach a summary of training needs analysis carried out.

An analysis of training need is an essential requirement to the design of effective training. The purpose of training need analysis is to determine whether there is a gap between what is required for effective performance and present level of performance. The TNA has been carried out keeping in mind all the stakeholders like the Organization i.e. University Institute of Technology, The University of Burdwan, Trainee i.e. the faculty members and other technical and non technical staff, student and the Trainer. TNA has been done considering the following three levels because the organization need and training need are interdependent because the organization performance ultimately depends on the performance of its individual employee and its sub group.

Organizational Level – Training need analysis at organizational level has been carried out keeping focuses on strategic planning, business need, and goals. It starts with the assessment of internal environment of the organization such as, procedures, structures, policies, strengths, and weaknesses and external environment such as opportunities and threats.

Individual Level – Training need analysis at individual level has focuses on each and every individual of University Institute of Technology, The University of Burdwan. The methods that are used here to analyze the individual need are:

- Appraisal and performance review
- Peer appraisal
- Competency assessments
- Subordinate appraisal
- Self-assessment or self-appraisal

Operational Level – Training Need analysis at operational level has also been carried out keeping the focuses on the work that is being assigned to the employees and also on the tasks needs to be done plus the tasks that will be required in the future.

TNA has been carried out keeping with the followings:

- Institution Strategic Development plan
- Institution SWOT Analysis
- Student's feedback

Suggested Training Domains identified for Faculty, HoD's, Deans and Principal:

S. No	Staff/Faculty Category	Suggested Areas of Training/Development
1.	Faculty (including contractual and ad-hoc)	<p>Organizational Level: Based on the Focus on Organizational Performance, Mind, Attitude & Motivation Power for Professional Excellence.</p> <p>Departmental Level: Advanced subject knowledge, Advanced R&D activities, lab/workshop development, Quality management, Standard conferences and consultancy.</p> <p>Individual Level: personality development program, skill up-gradation, qualification up-gradation, Effective teaching – learning (pedagogy) processes.</p>
2.	HoD's and Deans	<p>Organizational Level: Based on the Focus on Organizational Performance, Mind, Attitude & Motivation Power for Professional Excellence.</p> <p>Departmental Level: 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.</p> <p>Individual Level: personality development program, skill up-gradation, qualification up-gradation, Effective teaching – learning (pedagogy) processes.</p>
3.	Principal/Director	<p>Organizational Level: Institutional Development and Management, Based on the Focus on Organizational Performance, Mind, Attitude & Motivation Power for Professional Excellence. 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.</p>

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 Annexure-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.**

Faculty development planning is an important concern for all educational institutions. The purpose of the planning activity is to structure a continuing dialogue that promotes congruence among individual professional career development goals, institutional needs and mission. The faculty development plan has been designed keeping in mind the followings:

- All regular and probationary faculty members shall have a Faculty Development Plan.
- The Faculty Development Plan should be a multi-year plan for professional activity and growth, developed by the individual faculty member. The plan is developed by the faculty member and describes professional goals and objectives and plans to evaluate progress toward those objectives.
- The Faculty Development Plan is neither a personnel action item nor a contract. It is the property of the individual faculty member. Plans may relate to more effectively meeting current responsibilities and preparing to undertake new or altered responsibilities.
- For probationary members of the faculty, the Faculty Development Plan shall cover the probationary period.
- The Faculty Development Plan shall be reviewed and updated annually.
- The individual faculty member may alter the Faculty Development Plan as needed in discussion with the concerned authority.
- The Faculty Development Plan should be meaningfully related to the annual Faculty Work load Plan.

Faculty Development Plan for the first 18 months for improving their teaching, subject area and research competence based on Training Needs Analysis (TNA)

Nature of Training(Basic Pedagogy): All the faculty members of eligible engineering departments as well as the supportive departments (total no 56) will undergo a basic pedagogy training in group by group basis in 8 phases in four month duration **(Considering Two groups will under go basic pedagogical training in every month)**. For the first seven phases the each group consisting of 6 faculty members and the last group consist of 4 faculty members.

(For details of the group and their composition please see Annexure 5 & 5a)

Group No	Faculty Name/Abbreviation	Department	Areas of Training	Tentative Date	Trainer Organization
1	BKP	ECE	Basic Pedagogy	1 st Month of the project period (Tentatively Jan 2011)	Will be provided by SPFU
	SB	CSE			
	SG	CSE			
	AKG	AEIE			
	SD	GEN			
	SRC	GEN			
2	DD	CSE	Basic Pedagogy	1 st Month of the project period (Tentatively Jan 2011)	Will be provided by SPFU
	SP	CSE			
	SH	ECE			
	QMA	ECE			
	PD	GEN			
	KG	GEN			
3	KD	IT	Basic Pedagogy	2 nd Month of the project period (Tentatively Feb 2011)	Will be provided by SPFU
	ACH	IT			
	KBI	ECE			
	AS	ECE			
	GB	GEN			
	SBI	GEN			
4	SBH	IT			

	BP	CSE	Basic Pedagogy	2 nd Month of the project period (Tentatively Feb 2011)	Will be provided by SPFU
	CSN	AEIE			
	SKG	AEIE			
	TD	GEN			
	KR	EE			
5	SKGP	CSE	Basic Pedagogy	3 rd Month of the project period (Tentatively March 2011)	Will be provided by SPFU
	SDey	IT			
	SNP	AEIE			
	KM	ECE			
	AR	CE			
	BSat	EE			
6	PSC	IT	Basic Pedagogy	3 rd Month of the project period (Tentatively March 2011)	Will be provided by SPFU
	SDA	CSE			
	SM	ECE			
	PPS	ECE			
	PDu	EE			
	SNT	CE			
7	ND	IT	Basic Pedagogy	4 th Month of the project period (Tentatively April 2011)	Will be provided by SPFU
	AB	CSE			
	FBP	AEIE			
	RS	EE			
	BR	CE			
	PM	GEN			
8	SPJ	IT	Basic Pedagogy	4 th Month of the project	Will be provided by SPFU
	SKD	CE			
	RP	EE			

	DB	EE		period (Tentatively April 2011)	
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Nature of Training (Subject / domain knowledge enhancement/ Improving research capabilities): The faculty members of the concerned departments are keen to undertake high end research in advance areas of science and technology. The zest and zeal of research oriented activities in this direction speak volumes in support of their abilities and gusto for achieving self-sufficiency in terms of knowledge in the higher spectrum of frontier research-base. The quantity and quality of publications published over the last two years by the faculty members also testify this fact (see in annexure). The senior faculty members are also constantly encouraging the junior ones to undertake research endeavors in different emerging fields in their quests for knowledge.

Gro up No	Faculty Name/Abbrevi ation	Depart ment	Areas of Training/ development	Tentat ive Date	Trainer Organization
1	BKP	ECE	Collaborative Research program in the field of “DEVELOPMENT OF HIGH PRECISION TIME AND FREQUENCY STANDARDS.”	May – June 2011	HEIDELBERG UNIVERSITY, GERMANY/ Massachusetts Institute of Technology, / STANFORD UNIVERSITY, UK
	SB	CSE	Collaborative Research program in the field of Computer Network/Network Security/Image Processing	May – June 2011	Newcastle University, UK/ University of South Florida , USA/ National University of Singapur
	SG	CSE	Collaborative Research program in the field of Soft Computing and Pattern recognition	May – June 2011	University of California, Berkley/ Newcastle University, UK/ University of South Florida , USA/

			/Image Processing		
	AKG	AEIE	Collaborative Research program in the field of Programmable Logic Controller/ Optical Fiber based different process parameter measurement	May – June 2011	HEIDELBERG UNIVERSITY, GERMANY/ Massachusetts Institute of Technology, / STANFORD UNIVERSITY, UK
	SD	GEN	Modern Research Methodology/ Teaching Methodology	May – June 2011	IIT
	SRC	GEN	Administrative Management/ Training on Budget Preparation and management/ Accounting Standards & Practices/ Financial Management & Control/ Enabling resource based strategy in organisation/ Leadership Development	May – June 2011	IIM/ IIFM / ICAI/XLRI
	DD	CSE	Data Mining/ Soft Computing	Jan- Feb 2012	IIT/ISI, Massachusetts Institute of Technology, Cambridge/ Swiss Federal Institute of Technology/University of Manchester/ University of Rome/Nanyang Technological University, Singapore
	SP	CSE	Collaborative	Jan-	The University of Auckland,

2			Research program on Geometry and Topology related Shape Analysis, Graphics, Vision and Sound. Image Processing, Pattern Recognition	Feb 2012	New Zealand/Princeton University, USA/ Tokyo Institute of Technology, Japan.
	SH	ECE	Recent trend in broadband communications/ RF and Antenna Design	Jan-Feb 2012	Jadavpur University/ IIT/ Uppsala Universitet, Sweden/NTU, Singapore
	QMA	ECE	Collaborative Research program on DSP hardware and Processors/ Molecular modeling	Jan-Feb 2012	NUS,Singapore/ NTU, Singapore/IIT Mumbai/IISC , Bangalore
	PD	GEN	Thermal Sc. & Engineering/ Mechatronics.	Jan-Feb 2012	IIT/NIT
	KG	GEN	Nonlinear Dynamics, Climate change modelling, Computational physics, Market microstructure, Statistical regularity, Superstring Theory, Astrophysics and Solar Physics, Quantum Dynamics, Fluid Dynamics, Particle Physics, Neutrino Physics,	Jan-Feb 2012	International Centre for Pure and Applied Mathematics (ICPAM), Nice, France

			Earthquake		
3	KD	IT	Futuristic Computer/ Software Engineering	May – June 2012	University of Oxford, Havard University, University of California, Berkley
	ACH	IT	IMAGE ENGINEERING/KNOWLEDGE DISCOVERY/APPROXIMATE REASONING	May – June 2012	IOWA STATE UNIVERSITY, USA, UNIVERSITY OF HEIDELBERG, GERMANY, UNIVERSITY OF BALTIMORE, USA, UNIVERSITY OF WARSAW, POLLAND, GRENOBLE INSTITUTE OF TECHNOLOGY, FRANCE, IMPERIAL COLLEGE, UK
	KBI	ECE	Recent technologies in Smart Antenna design/ Microarray data analysis and drug discovery.	May – June 2012	NUS, Singapore/ NTU, Singapore/ IIT Mumbai/ IISC Bangalore/
	AS	ECE	Optical System Design Software/ Specialty Fiber and Fiber Bragg Grating: Design & Application	May – June 2012	MIT, USA/ STANFORD UNIVERSITY, UK/ GOTTINGEN, GERMANY/ IIT Delhi/ ISC Bangalore
	GB	GEN	Data Mining, PATTERN RECOGNITION, ASTRO PHYSICS	May – June 2012	Indian Statistical Institute/ Jawaharlal Nehru Technological University / Jadavpur University/ Calcutta University/ IISC (Bangalore)/ IIT/ Kurukshetra University/ University of Munich/ University of Rome (Italy)/ University of Heidelberg/ University of Brontingen/ IIT / IISC (Bangalore)/ ICTP (USA)/ Indian Statistical Institute/ Jawaharlal Nehru University/ University of

					Bangalore/NITTTR
	SBI	GEN	Solid State Devices, Semiconductor Devices, Quantum Devices	May – June 2012	Institute of Physics, Chemintz , Germany/ Massachusetts Institute of Technology, Cambridge/ Madras Institute of Technology, Chennai

Workshops/Seminars/Conferences: The University of Burdwan always strongly encourage the faculty members for participation in various short term /long term, National and International seminars, conference, workshops courses in India and Abroad. This is highly desirable in keeping pace with the rapid changes of the technical know-how taking around the world. The University would also encourage faculty members to organize workshops/seminars from time to time.

Group No	Faculty Name/Abbreviation	Department	Areas of Training/ development	Tentative Date	Trainer Organization
4	CSN	AEIE	FUZZY/NEURAL NET/PATTERN RECOG/SMART SENSOR/IMAGE PROCESSING	May-June 2011	IIT Kgp/IIT Delhi/NIT DGP./Jadavpur Univ./IIT Mumbai
	SBH	IT	Image Engineering/Knowledge Discovery/Approximate Reasoning/Quantum computing	May-June 2011	Any IIT/ Any ISI/ IISc/ Any NITTR/ Any NIT/ JU/ BESU
	BP	CSE	Soft Computing and Pattern recognition /Image Processing/Digital Geometry	May-June 2011	Any IIT/ Any ISI/ IISc/ Any NITTR/ Any NIT/ JU/ BESU
	KR	EE	Non Linear Control System / PLC	May-June 2011	Any IIT/ Any ISI/ IISc/ Any NITTR/ Any NIT/ JU/ BESU
	TD	GEN	Optimization Techniques	May-June 2011	Any IIT/ Any ISI/ IISc/ Any NITTR/ Any NIT/ JU/ BESU
	SKG	AEIE	DSP/FUZZY/NEURAL NET/PATTERN	May-June	IIT Delhi/NIT DGP./Jadavpur

			RECOG/SMART SENSOR/IMAGE PROCESSING	2011	Univ./IIT Mumbai
5	SDE	IT	Image Engineering/Knowledge Discovery/Approximate Reasoning	Jan-Feb 2012	Any IIT/ Any ISI/ IISc/ Any NITTR/ Any NIT/ JU/ BESU
	AR	CE	Effects of Soil- Structure interaction on dynamic Charecteristics of Elevated water tank	Jan-Feb 2012	BESU/ JU/NIIT Durgapur/IIT
	SKGP	CSE	AI, Multiagent System,Soft Computing	Jan-Feb 2012	Any IIT/ Any ISI/ IISc/ Any NITTR/ Any NIT/ JU/ BESU
	BS	EE	Robust Control Strategies and Soft computing Techniques/ Nonlinear dynamics, modeling and control	Jan-Feb 2012	Any IIT/ Any ISI/ IISc/ Any NITTR/ Any NIT/ JU/ BESU
	SNP	AEIE	Advance Sensors / Instrumentation and process control	Jan-Feb 2012	Any IIT/ Any ISI/ IISc/ Any NITTR/ Any NIT/ JU/ BESU
	KM	ECE	Broadband Wireless Communication	Jan-Feb 2012	Jadavpur University

Summary of the Faculty Development plan

SL NO	Training Area	Project Months (Assuming project months starts from Jan 2011)										
		17-18	15-16	13-14	11-12	9-10	7-8	5-6	4	3	2	1
1	Basic pedagogy:								Group 7-8	Group 5-6	Group 3-4	Group 1-2

2	Subject / domain knowledge enhancement/ (Short Term Training Programme)/ Research Capabilities					Group 1				Group 2		Group 3
3	Workshop / Seminar /Conference					Group 4				Group 5		

2.8 Provide an Action Plan for training technical and other staff in functional areas.

To better respond to the challenges of the outside world each staff members will require training mainly in two different areas: technical upgrading and management training. A detailed training program involving both in-house training activities, peer feedback and evaluation in micro-teaching situations, training workshops facilitated by outside experts and sending staff members to attend training events will be developed.

Suggested Training Domains identified for Class IV Staff, Support Staff ,Technical Staff and Administrative Staff (including Finance personnel):

S. No	Staff/Faculty Category	Suggested Areas of Training/Development
1.	Class IV Staff	<p>Organizational Level: Based on the Focus on Organizational Performance, Mind, Attitude & Motivation Power for Professional Excellence</p> <p>Development of Mind, Attitude & Motivation Power (Applies to all for smooth functioning of the programme)</p> <p>Individual Level: personality development program, skill upgradation</p> <p>Skill Upgradation (Applies to selected personnel entrusted for a specific task; he/she should be provided training in relevant module before being put to task)</p> <p>Departmental Level: (APPLIES TO ALL) Improving Communication skill , Mechanical Training of car</p>

		<p>maintenance, Office Automation Software, Basic Training of computer, Electrical Training</p>
2.	Support Staff	<p>Organizational Level: Based on the Focus on Organizational Performance, Mind, Attitude & Motivation Power for Professional Excellence</p> <p>Development of Mind, Attitude & Motivation Power</p> <p>(Applies to all for smooth functioning of the programme)</p> <p>Individual Level: personality development program, skill upgradation, qualification upgradation.</p> <p>Skill Upgradation</p> <p>(Applies to selected personnel entrusted for a specific task; he/she should be provided training in relevant module before being put to task)</p> <p>Departmental Level: Technical knowledge enhancement, training on office automation, Training on Accounting Software, Financial Management, Database Management System.</p> <p>All support staff should be imparted with technical knowledge of office automation from relevant vendor of repute. Suitable training sessions may be arranged for the same.</p>
3.	Technical Staff	<p>Organizational Level: Based on the Focus on Organizational Performance, Mind, Attitude & Motivation Power for Professional Excellence.</p> <p>Individual Level: personality development program, skill upgradation, qualification upgradation.</p> <p>Departmental Level: Technical knowledge enhancement, training on office automation, Operation and Maintenance of modern Laboratory and advanced equipment.</p> <p>At the operational level, emphasis should be given on proper train-up of technical staff for supporting the faculty</p>

		<p>members for imparting quality technical education.</p> <p>Constant upgradations of knowledge-base in the following fields are required of the technical staff members from the various departments.</p>
4.	Administrative Staff (including finance personnel)	<p>Organizational Level: Based on the Focus on Organizational Performance, Mind, Attitude & Motivation Power for Professional Excellence.</p> <p>Individual Level: Personality Development Program, Skill Upgradation, Qualification Upgradation through Different Administrative and Management Course.</p> <p>Departmental Level: Administrative Management, Training on Budget Preparation and Management, Accounting Standards and Practices, Financial Analysis, Planning and Control, Enabling Resource based Strategy in Organisation, Leadership Development.</p>

Staff Development Plan including technical and administrative staff for the first 18 months

Support Staff & Administrative Staff

Administrative staff also needs training in their functional areas, particularly in the use of modern office equipment, software, office automation, maintenance, maintenance of records, procedures etc. The training should also cover motivation for time and material efficiency and friendliness towards faculty and students.

Describe the relevance and coherence of Institutional Development Proposal with State's/National (In case of cfls) Industrial/ Economic Development Plan.

Staff Name/Abbreviation	Department	Areas of Training/ development	Tentative Date	Trainer Organization
AMIYO PRASAD GHOSH (APG)	OFFICE & ADMINISTRATION	ADMINISTRATIVE MANAGEMENT/ TRAINING ON BUDGET PREPARATION AND MANAGEMENT/ FINANCIAL ANALYSIS, PLANNING & CONTROL/ ENABLING RESOURCE BASED STRATEGY IN ORGANIZATION/ SUCCESSION MANAGEMENT: STRATEGIES FOR BUILDING LEADERSHIP PIPELINE/ INTERPERSONAL EFFECTIVENESS THROUGH	JUNE-JULY 2011	IIFM, IIM, NIT, IIT

		COMMUNICATION SKILL		
PARTHA SARATHI CHOUDHURI (PSC)	TRAINING & PLACEMENT	ERP	JUNE- JULY 2012	IIM/IIT/XLRI/IBM/ORACLE
RATNESH BATABYAL (RB)	FINANCE	ANY ACCOUNTING PACKAGE (FA)	JUNE- JULY 2011	Inhouse/CU/IIFM/XLRI/JU
DIPAK CHAKRAVARTY (DC)	OFFICE	OFFICE MANAGEMENT & DATABASE SYSTEMS/ LEAVE CALCULATION SOFTWARE/ OFFICE AUTOMATION SOFTWARE/ COMMUNICATION SKILLS	JUNE- JULY 2011	Inhouse/CU/IIFM/XLRI/JU
TARUN KR. CHAKRABORTY (TKC)	FINANCE	FINANCIAL MANAGEMENT/ FINANCIAL PACKAGE, INTERNET	JAN – FEB 2012	Inhouse/CU/IIFM/XLRI/JU
SANDIP SAMADDAR (SS)	OFFICE	OFFICE MANAGEMENT & STUDENTS DATABASE SYSTEM/ STOCK & STORE MANAGEMENT/ OFFICE AUTOMATION SOFTWARE/ COMMUNICATION SKILLS	JAN – FEB 2012	Inhouse/CU/IIFM/XLRI/JU
PINTU DUTTA (PD)	OFFICE	COMPUTER TRAINING FOR OFFICE WORK	JAN – FEB 2012	Inhouse/CU/IIFM/XLRI/JU
SWARNA PALIT (SP)	OFFICE	CERTIFICATE COURSE OF COMPUTER APPLICATION	JUNE- JULY 2012	Inhouse/CU/IIFM/XLRI/JU

GR. IV STAFF MEMBERS –

Staff Name/Abbreviation	Department	Areas of Training/ development	Tentative Date	Trainer Organization
SWAPAN MAJHI (SM)	OFFICE	MECHANICAL TRAINING OF CAR MAINTENANCE	JUNE- JULY 2011	G T T I(Automobiles)
SK. OMAR ALI (SOA)	OFFICE	OFFICE AUTOMATION SOFTWARE/ COMMUNICATION SKILL	JUNE- JULY 2011	In-house with suitable organisation

ALOK GHAR (AG)	OFFICE	COMPUTER CERTIFICATE COURSE/ OFFICE AUTOMATION SOFTWARE	JUNE- JULY 2011	In-house with suitable organisation
BISWAJIT SAMANTA (BS)	OFFICE	BASIC TRAINING OF COMPUTER/	JAN – FEB 2012	In-house with suitable organisation
SANKHABRATA BISWAS (SB)	OFFICE	ELECTRICAL TRAINING (PART- 5(A) & (B), PART- 6 (A) & (B))	JUNE- JULY 2012	In-house with suitable organisation

TECHNICAL STAFF

THE TECHNICAL STAFF IN SYSTEM, LABORATORIES AND WORKSHOPS NEED TO BE TRAINED IN THEIR FUNCTIONAL AREAS INCLUDING OPERATION AND ROUTINE MAINTENANCE OF BOTH THE EXISTING AND NEW EQUIPMENT. THEY ALSO NEED TRAINING ON WORKSHOP INSTRUCTIONS, UPKEEP OF INSTITUTIONAL SERVICES ETC. THE TECHNICAL STAFF ALSO NEED TO BE MOTIVATED AND ENCOURAGED TO GO FOR TRAINING AND TO USE THEIR NEWLY ACQUIRED EXPERTISE FOR THE BENEFIT OF STUDENTS AND THE INSTITUTION.

Staff Name/Abbreviation	Departmen t	Areas of Training/ development	Tentative Date	Trainer Organization
KRISHNENDU PRAKASH BANERJEE(KPB)	SYSTEM	SYSTEM ADMINISTRATION/ PROGRAMMING LANGUAGES/ DBMS/ NETWORK ADMINISTRATION/NETWORK SECURITY	JUNE- JULY 2011	IIT / IISC / IISER / NITTTR/ISI/BESU/JU/NIT/NE RIST/ORACLE/IBM
ADYA PRASANNA RAKSHIT (APR)	CSE	GRAPHICS, ANIMATION, VIRTUAL REALITY AND MULTIMEDIA/ MULTIMEDIA DATABASE/ MULTIMEDIA COMMUNICATION IN MOBILE ENVIRONMENT	JUNE- JULY 2011	IIT / IISC / IISER / NITTTR/ISI/BESU/JU/NIT/NE RIST
PREETAM DE (PDE)	CSE	DBMS/ DATA MINING AND DATA WAREHOUSING/	JUNE – JULY 2011	IIT / IISC / IISER / NITTTR/ISI/BESU/JU/NIT/NE RIST
KAUSHIK SENGUPTA (KS)	IT	SYSTEM ADMINISTRATION/ NETWORKING (WIRELESS TECHNOLOGIES)	JUNE – JULY 2011	IIT / IISC / IISER / NITTTR/ISI/BESU/JU/NIT/NE RIST
SUVAJIT CHAKRABORTY (SC)	ECE	REPAIRING AND TECHNICAL DETAILS OF THE INSTRUMENTS RELATED WITH DIFFERENT ELECTRONICS LABS/	JUNE – JULY 2011	ERTL / SAMEER/NERIST

		PRACTICAL BASED TRAINING ON MICROCONTROLLER, MICROWAVE,ROBOTICS, PCB DESIGNING,NANOTECHNOLO GY AND OTHER UPCOMING TECHNOLOGIES/		
PARAMITA CHAKRABORTY (PC)	ECE	REPAIRING AND TECHNICAL DETAILS OF THE INSTRUMENTS RELATED WITH DIFFERENT ELECTRONICS LABS/ PRACTICAL BASED TRAINING ON MICROCONTROLLER, MICROWAVE, ROBOTICS, PCB DESIGNING, NANOTECHNOLOGY AND OTHER UPCOMING TECHNOLOGIES	JUNE – JULY 2011	ERTL / SAMEER/NERIST
VRIGURAM RAY (VR)	LIBRARY	LIBRARY AUTOMATION AND NETWORKING/ ACCESS MANAGEMENT & E- RESOURCES/ INFORMATION TECHNOLOGY FOR INFORMATION MANAGEMENT	JUNE- JULY 2011	IIT/JU/NIT/DU/JNU/AMU
INDRADIP BANERJEE (IB)	IT	NETWORK SECURITY/ IMAGE PROCESSING/ MATLAB/MULTIMEDIA/ VB/ SYSTEM ADMINISTRATION	JAN – FEB 2012	IIT / IISC / IISER / NITTTR/ISI/BESU/JU/NIT/NE RIST
CHANDAN KARFORMA (CK)	IT	ORACLE DBA/ MICROSOFT DOT NET / NETWORK ADMINISTRATION/ OPEN SOURCE ENVIRONMENT	JAN – FEB 2012	IIT / IISC / IISER / NITTTR/ISI/BESU/JU/NIT/NE RIST
MOUMITA NAG(MN)	ECE	REPAIRING AND TECHNICAL DETAILS OF THE INSTRUMENTS RELATED WITH DIFFERENT ELECTRONICS LABS/	JAN – FEB 2012	ERTL / SAMEER/NERIST

		PRACTICAL BASED TRAINING ON MICROCONTROLLER, MICROWAVE, ROBOTICS, PCB DESIGNING, NANOTECHNOLOGY AND OTHER UPCOMING TECHNOLOGIES/WIRELESS COMMUNICATION		
SUDESHNA DEY (SD)	AEIE	REPAIRING AND TECHNICAL DETAILS OF THE INSTRUMENTS RELATED WITH DIFFERENT ELECTRONICS LABS/ PRACTICAL BASED TRAINING ON MICROCONTROLLER, MICROWAVE, ROBOTICS, PCB DESIGNING, NANOTECHNOLOGY AND OTHER UPCOMING TECHNOLOGIES	JAN – FEB 2012	ERTL / SAMEER/NERIST
SANDIP GHOSH (SG)	PHYSICS	TRAINING ON LAB AUTOMATION (BOTH HARDWARE AND SOFTWARE)/ THEORETICAL KNOWLEDGE OF THE EXPERIMENTS/ DESIGNING AND MAINTENANCE OF LAB EQUIPMENTS	JAN – FEB 2012	ERTL / SAMEER/CU/NIT/BESU/NERIST/AMU/BITM
ABDUL AHAD MIDDHA (AAM)	LIBRARY	BARCODE AND RFID TECHNOLOGIES FOR LIBRARIES/ INFORMATION TECHNOLOGY FOR INFORMATION MANAGEMENT/ DESIGN AND DEVELOPMENT OF DIGITAL LIBRARIES USING DSPACE	JAN – FEB 2012	IIT/JU/NIT/DU/JNU/AMU
INDRAJIT CHAUDHURY (IC)	CSE	SYSTEM ADMINISTRATION/ NETWORKING	JUNE- JULY 2012	IIT / IISC / IISER / NITTTR/ISI/BESU/JU/NIT/NERIST

DEBASIS BISWAS (DB)	AEIE	REPAIRING AND TECHNICAL DETAILS OF THE INSTRUMENTS RELATED WITH DIFFERENT ELECTRONICS LABS/ PRACTICAL BASED TRAINING ON MICROCONTROLLER, MICROWAVE,ROBOTICS, PCB DESIGNING,NANOTECHNOLO GY AND OTHER UPCOMING TECHNOLOGIES	JUNE- JULY 2012	ERTL / SAMEER/NERIST
SANJOY KONER (SK)	EE	ELECTRICAL MACHINE/ PLC/ POWER SYSTEM/ MACHINE DRIVES/ CONTROL SYSTEM	JUNE- JULY 2012	ERTL / SAMEER/Cu/NIT/BESU/NERIS T/AMU
MD. HASANUJJAMAN (MH)	EE	ELECTRICAL MACHINE / MACHINE DRIVES/ CONTROL SYSTEM	JUNE- JULY 2012	ERTL / SAMEER/Cu/NIT/BESU/NERIS T/AMU
SK. JAMALUDDIN (SJ)	CE	SURVEYING IN TOTAL STATION/ SOIL MECHANICS/ ADV. SOIL & FOUNDATION ENGG./ STRUCTURAL ENGG./ TRANSPORTATION ENGG. (HIGHWAY, RAIL, PORT)/ TRAFFIC ENGINEERING/ DESIGN OF CONCRETE AND STEEL/ STRUCTURAL ANALYSIS	JUNE- JULY 2012	ERTL / SAMEER/Cu/NIT/BESU/NERIS T/AMU
BARUN KUMAR CHAUDHURY (BKC)	CE	CONCRETE TECHNOLOGY/ SURVEYING IN TOTAL STATION/ SOIL MECHANICS/ ADV. SOIL & FOUNDATION ENGG./ STRUCTURAL ENGG./ TRANSPORTATION ENGG. (HIGHWAY, RAIL, PORT)/ TRAFFIC ENGINEERING/ DESIGN OF CONCRETE AND STEEL/ STRUCTURAL	JUNE- JULY 2012	ERTL / SAMEER/Cu/NIT/BESU/NERIS T/AMU

		ANALYSIS		
ANUPAM GHOSH (AG)	LIBRARY	NETWORK MANAGEMENT/ DIGITAL LIBRARY MANAGEMENT/ DIGITAL PRESERVATION	JUNE- JULY 2012	IIT/JU/NIT/DU/JNU/AMU

2.9 Describe the relevance and coherence of Institutional Development Proposal with State's/National (In case of CFIs) Industrial/ Economic Development Plan.

The state of West Bengal is currently experiencing significant economic growth. The government is taking pro-active steps to make the state an attractive investment destination and make it a key part of the India growth story. The state is unique in terms of the social, economic, political and demographic factors. Keeping in mind the new National Economic Policy, West Bengal formulated its Industrial Policy Resolution with a view to secure faster and balanced economic development with the active cooperation of the private sector. The key features of West Bengal's present industrial policy are as follows:

1. Appropriate foreign technology and investment are welcomed on mutually advantageous terms.
2. The Government recognizes the importance and key role of Private, Public & Joint sectors in providing accelerated growth and improvement and up-gradation of industrial as well as social infrastructure.
3. The State Govt. would welcome private sector investment in power generation.
4. The Govt. recognizes the need of improvement of industrial infrastructure like roads, communication, development of growth centers etc. Since these programmes require massive investment, Govt. proposes to undertake projects for development of Industrial infrastructure through the private joint sectors also.
5. Govt will more intensify the improvement of social infrastructure facilities like development of satellite township, housing, health, education, water supply, hotels etc. and thrust will be made on technical education and training through polytechnics.

Based upon the available opportunities and the potential of this region, the State Govt, has identified certain segments of industries as thrust areas for special attention viz.

- Petro-chemicals & Downstream Industries
- Electronics & Information Technology

- Iron & Steel, Metallurgical and Engineering
- Textiles
- Leather and Leather Products
- Food Processing, Edible Oil, Vegetable Processing and Aquaculture
- Development of Medicinal plants, Rubber, Palm oil and Tea
- Manufacture of basic drugs, chemicals and pharmaceuticals
- Optimal utilization of minerals and development of mine based industries
- Gems and Jewellery
- Promotion of Tourism and Tourism related activities

Keeping in mind the recent surge in entrepreneurs interest to set up industry in the State, the government is drawing up a comprehensive document on its approach to industrialization considering matters such as location policy for industries, areas of development and focus, needs for remote connectivity and meeting the challenges of industrialization without harming farm growth.

West Bengal has a well developed communication network encompassing an extensive railway system, domestic and international airports, modern ports, national highway, etc. For industrial exploitation the raw materials available are coal, iron and steel, agri-horticultural produce, plantation crop, agro-waste, marine products, hides and skins etc. Minerals like dolomite, limestone, lead, zinc ores and granite are in abundance. Water is plenty. Indeed, the State's natural wealth is among the best in the country.

Till the late forties, West Bengal enjoyed a pre-eminent position in the field of industrial development. Well over six lakhs of people were employed in various industries in the organized sector in 1948 – a figure being equal to that of the present Maharashtra and Gujarat put together. The partition followed by large influx of refugees placed a major strain on the resources of the State. But this was not adequately taken care of by the Government of India. Nevertheless number of Central Public Sector establishments like the Durgapur Steel Plant (DSP), Alloy Steel Plant (ASP), Mining & Allied Machinery Corporation (MAMC), Chittaranjan Locomotive Works (CLW) etc.

Since industry is in the Union list and financial institutions are under the Central Government, industrialization in any State is crucially dependent on the policies at the national level. Over several years in the past, there has been serious discrimination at the national level against the State (and also the entire eastern region) in the granting of industrial licenses. The deliberate policy of selective freight equalization has also robbed the State of its comparative locational

advantage in terms of important industrial raw materials, such as steel and coal. Similarly, the credit-deposit ratio of the nationalized commercial banks in West Bengal has been unreasonably kept depressed at around 46.5%, below the national average of 60%. There has also been a palpable discrimination in the direct investment of the Central Government in the State. For instance, while in 1981, the share of West Bengal in total Central investment in the country had been at 8.2% and that of the comparable State Maharashtra at 8.6%, in 1991-92 the share of Maharashtra increased to 16.3% but that of West Bengal came down to 7%. Even this discriminatory policy in the sphere of banking and Central investment persists.

As a result of the New Economic Policy indigenous technology and Indian industries are exposed to the rigours of global competition. Development of indigenous technology may as a result be thwarted and local products rendered less competitive. The State Government's policy, therefore, is oriented for promotion of employment and productivity, rehabilitation of sick industries through a process of reconstruction, modernization and/or diversification and protection of the legitimate interests of the workforce keeping in view the overall health and productivity of industry.

Apart from the presence of large Indian Industrial Houses functioning the State, a number of Multi-national Corporations (mncs) have long been successfully operating in the State and, to name a few, they are Philips, GEC, Hindusthan Unilever, ICI, Siemens, Bata, etc. A welcome development is that a good number of Non-Resident Indians (nrIs), mncs directly or through foreign Governments and Indian Industrial Houses have, in the recent past, shown special interest in coming to West Bengal either for setting up new industries or for expansion of existing industrial units.

Apart from the growth in the primary and secondary sectors there is a commendable growth observed in the tertiary sector, especially in IT and ITES. Corporates like TCS, WIPRO, CTS, IBM, WEBEL etc. are also doing a good progress.

Keeping all these Economic and Industrial policies in mind, we need to strengthen the base of Engineering & Technological education for increasing the employability and ensuring overall economic & industrial growth of the state as well the nation. The institutional development plan (IDP) has been made considering all these aspects. Thrust is given on making more employable and industry ready engineers who will be capable of understanding technological aspects in the areas of Electronics and Communication, Information Technology, Computer based automation, Architecture & Civil Construction, automation in Petrochemical Industries and process plants, Power Generation and Distribution etc. Thrust is also given to provide higher education for research and development activities in the areas relevant to the Industrial as well as economic growth of the state. Attention has been made for updating the course curriculum involving the Industry people from both Govt. and Private sectors. From teaching and learning environment to the field of manufacturing for making profit as well as catering service to the people there are lot of ideological changes to be followed. Training for both faculties and students in these areas, particularly in the field of generating communication skill, financial management, marketing and quality assurance aspects, entrepreneurial ideas can meet to understand the above gap. Thrust has been made on such trainings so that the students can equally feel free to all sectors, Govt. and Private and can deliver their best.

2.10 Describe briefly the participation of departments/faculty in the IDP preparation. (Please see annexure-15 for formation of TEQIP unit & Annexure-16 for BOG's approval of IDP)

The institutional development plan is prepared with the active participation of all the departments under reform, supporting departments, administrative office, accounts, library, office of the organization head and the departmental heads. The SWOT analysis is made with the active participation of all the stake holders in the departmental level at the first step. Head of the departments, faculties, technical and non technical staff , other support staff, students, alumnus, parents etc. are involved with SWOT analysis at each departmental level. A central committee has compiled all the data to find out the key findings for formulating the strategic plan of the organization to meet the vision & mission of the organization as well as to meet the project objective in the prescribed project period. The action plans are derived from the strategic plan.

For the preparation of training need analysis(TNA) also, all employees of the organization at different levels are involved. Each and individual feedback forms are analyzed and TNA at the departmental level is prepared. The departmental heads and the Institutional head have also given their feed back in the prescribed format and the TNA in the Institutional level is prepared on the basis of the TNA of all the individual departments. The head of the institution is involved in this process and he is well aware about the overall development plan of the institution.

The institutional development plan in real sense is the compilation of the development plans prepared departmentally for the departments under reform and the supporting departments. The head of each department with consultation with faculties and staff of the department has prepared the plan. A central committee heading the principal has analyzed the data and added the institutional points.

2.11 Describe the Institutional project implementation arrangements with participations of faculty and staff.

The Project at the Institutional level will be managed and implemented by two bodies (i) the Board of Governors (BoG) and (ii) an Institutional TEQIP Unit. The BoG should be formed as per UGC guideline and the Institutional TEQIP committee should be comprised of representatives from Academic Officials, Faculty, senior Administrative Officers, technical and non-technical support staff and students. Formation of the institutional TEQIP committee should be approved by the BoG. **(Please see annexure-17, for structure of BOG/EC in our case)**

The Institutional TEQIP Unit, headed by the Head of the Institution, will be responsible for implementation of the Institutional project. He/she is to be assisted by a Senior Professor 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.

The executive council of The University of Burdwan is operating as the BOG of the University Institute of Technology. The TEQIP unit has already been formed and approved by the Executive Council in its meeting dated 31-08-2010 as per above guideline. Each sub unit under the Institutional TEQIP unit will also be assisted by an advisory committee comprising the experts from other departments of the university.

2.12 Provide an Institutional project budget in Table-29.

Table-29

Institutional Project Budget for Sub-Component 1.1.

(Rs. In Crore)

SL No.	ACTIVITIES.	PROJECT LIFE ALLOCATION	FINANCIAL YEAR						
			2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	1 ST APRIL 2016-31 ST OCT 2016
1	INFRASTRUCTURE IMPROVEMENTS FOR TEACHING, TRAINING AND LEARNING THROUGH:								
	(i) MODERNIZATION AND STRENGTHENING OF LABORATORIES	5 YRS		0.035	0.512	0.315	0.100	0.100	
	(ii) ESTABLISHMENT OF NEW LABORATORIES FOR EXISTING UG AND PG PROGRAMMES AND FOR NEW PG PROGRAMMES	5 YRS	0.025	0.406	0.486	0.340	0.110	0.100	
	(iii) MODERNIZATION OF CLASSROOMS	2 YRS		0.024	0.020				
	(iv) UPDATION OF LEARNING RESOURCES (NETWORKING, LAPTOPS, PROJECTORS, PRINTERS ETC.)	4 YRS	0.010	0.230	0.330	0.120	0.050		

	(v) PROCUREMENT OF FURNITURE	4 YRS	0.010	0.060	0.090	0.030	0.010		
	(vi) ESTABLISHMENT/UP GRADATION OF CENTRAL AND DEPARTMENTAL COMPUTER CENTERS	4 YRS		0.163	0.163	0.140	0.0535		
	(vii) MODERNIZATION/IMPROVEMENTS OF SUPPORTING DEPARTMENTS	4 YRS		0.035	0.081	0.029	0.0225		
	(viii) MODERNIZATION AND STRENGTHENING OF LIBRARIES AND INCREASING ACCESS TO KNOWLEDGE RESOURCES	4 YRS		0.130	0.130	0.125	0.115		
	(ix) REFURBISHMENT (MINOR CIVIL WORKS & ENVIRONMENT MANAGEMENT)	5 YRS		0.100	0.150	0.00	0.150	0.100	
	(x) MINOR ITEMS	4 YRS		0.040	0.035	0.0100	0.0075		
2	PROVIDING TEACHING AND RESEARCH ASSISTANTSHIPS TO INCREASE ENROLMENT IN EXISTING AND NEW PG PROGRAMMES IN ENGINEERING DISCIPLINES	4 YRS	0.1368	0.252	0.252	0.252	0.1072		
3	ENHANCEMENT OF R&D AND INSTITUTIONAL CONSULTANCY SERVICES	5 YRS	0.0115	0.01	0.06	0.049	0.0115	0.058	
4	FACULTY AND STAFF DEVELOPMENT (INCLUDING FACULTY QUALIFICATION UP GRADATION, PEDAGOGICAL TRAINING, AND ORGANISING/PARTICIPATION OF FACULTY IN WORKSHOPS, SEMINARS AND CONFERENCES) FOR IMPROVED COMPETENCE BASED ON TNA	6 YRS		0.10	0.20	0.20	0.20	0.20	0.10
5	ENHANCED INTERACTION WITH INDUSTRY	6YRS	0.030	0.045	0.04	0.107	0.058	0.05	0.07
6	INSTITUTIONAL MANAGEMENT CAPACITY ENHANCEMENT	6YRS		0.05	0.05	0.05	0.05	0.05	0.05

7	IMPLEMENTATION OF INSTITUTIONAL REFORMS	5YRS	0.035	0.030	0.030	0.030	0.035	0.04	
8	ACADEMIC SUPPORT FOR WEAK STUDENTS UNDER THE AEGIS OF FINISHING SCHOOL	6YRS	0.04	0.04	0.04	0.045	0.075	0.10	0.06
9	TECHNICAL ASSISTANCE FOR PROCUREMENT AND ACADEMIC ACTIVITIES	4 YRS	0.0075	0.060	0.050	0.045	0.0375		
10	INCREMENTAL OPERATING COST	6 YRS	0.114	0.136	0.156	0.151	0.143	0.15	0.15
	TOTAL		0.4198	1.946	2.875	2.038	1.3357	0.948	0.43

2.13 Provide the targets against the deliverables listed in Table – 30
Table – 30(Project Targets for Institutions under Sub-Component 1.1)

S. No.	Deliverables	Baseline	Targets to be achieved	
			At the end of 2 years of joining the project.	By Project closing (31 st Oct, 2016)
1.	Number of students registered for (a) Master in Engineering programme (b) Doctoral programme in engineering	Nil nil	66 0	160 20
2.	Revenue from externally funded R&D projects and consultancies in total revenue (Rs. In lacs)	15.0	20.0	50.0
3.	Number of publications in refereed journals (a) National (b) International	5 40	10 20	30 50
4.	IRG as % of total annual recurring expenditure			
5.	Number of co-authored publications in refereed journals (c) National (d) International	0 63	50 20	120 50
6	Student credentials (a) Campus placement rate of • UG students • PG students (b) Average salary of placement package for (Rs. In lacs) • UG students • PG students	52% No PG 2.5 No PG	80% No PG 3.0 No PG	90% 80% 3.5 4.0

7.	Number of collaborative programmes with Industry	1	2	5
8.	Accreditation status(obtained and applied for)	50%	Minimum 60% of UG+PG	100% eligible UG + PG programmes.
9.	Vacancy position for faculty and staff	31%	Vacancy reduced to 10% or less	Zero
10.	Percentage of regular faculty having a Masters degree or a doctorate degree in engineering disciplines	100%	Increased by 20% and 10% respectively over baseline.	Increased by 40% and 20% respectively over baseline.
11.	Transit rate from 1st to 2nd year for the following: <ul style="list-style-type: none"> All students SC & ST students OBC students Women students 	78% 75% 72% 83%	85% 82% 80% 90%	95% 90% 85% 98%
12.	Autonomy status	Partially available	Required to be obtained	---
13.	Enrollment of faculty with only Bachelor degree for qualification upgradation	Nil, all have master degree	At least 50% at the parent institution or 25% at other institution	Not applicable
14.	Any other academic deliverables (maximum 3)			
(i)	Ratio of PhD holders to total no of faculties	24%(as on 31 st March, 2010)	40%	50%
(ii)	Invited lectures by industry expert	6 (2009-10)	20	50
(iii)				

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

A project is called successful one when the objective of a project is fully achieved within the project period and achievement is sustained when external financial and human resources and support systems are withdrawn. University Institute of Technology (UIT) has considered three aspects of sustainability, programmatic, administrative and financial. As explained in the strategic plan of UIT it has identified clear strategic directions for itself and has already engaged in these directions. TEQIP is a timely and welcome stimulus to help the organization to move in the right direction. The directions UIT is pursuing are therefore not externally imposed but

internally determined. The TEQIP project can provide a significant boost in these strategic directions and introduces several streams of activity which include:

1. A research program
2. An educational program
3. A networking program
4. An Equity Action program

We believe that organizational development program comprising the above four factors will help to sustain the result of the project and even expand beyond the life of the project. However, the sustainability of each one of those activity depends on different parameters and strategies, as briefly discussed below.

Research Program

UIT, The University of Burdwan already has a culture and a long tradition of academic and research excellence, and it has independently sustained it over several decades. The continuance of the research program supported by this project depends on the capacity of faculty to generate research grants and through these, sustain the increased number of PhD students. The only real threat to the further sustenance of UIT's tradition of excellence is whether or not UIT, BU will be able to induct and train the next generation of faculty that will show the same determination, vision, motivation and drive as their predecessors. While the sustenance of excellence in research is a programmatic issue, one of its prime determinants is an administrative and human resource development challenge, rather than a programmatic one. UIT, BU has the capacity to conduct high quality research. It needs to develop the capacity to transfer it to a new generation. Special attention is therefore being paid in this project to increase UIT's capacity to do so. The project calls for an immediate resolution of the administrative recruitment and financial support bottleneck through increased administrative autonomy and a block funding at the appropriate level and a large recruitment effort in the first year of the project to allow UIT sufficient time to orient and train the new generation of faculty. The project also includes a systematic program of faculty training and development to build this capacity and a large increase in the production of well-trained PhD who will be prime candidates for future recruitment.

Educational Program

The sustainability of educational excellence implies the continuation of teaching and curriculum development practices that will have been acquired during this project. It requires, specifically that faculty continue to adopt improved educational practices and that a dynamic and systematic curriculum development process be in place. The design of the project in this area calls for several measures that will foster these two processes. Rather than focusing on punctual curriculum changes, one of the major objectives of this project is to systematize the process of curriculum development itself. Once such a process is systematized and operating, it becomes part of the culture of the institution and will continue operating and being refined. The project also focuses on improving teaching practice and instituting a permanent system of quality control and improvement in teaching. Here again, attention has been paid to systematic educational training, the establishment of a performance evaluation system that takes teaching performance into account and systematic processes of teaching improvement. Thus, both continuous attention to teaching improvement and to curriculum development are likely to become part of the culture of the institution.

Networking Program

While UIT has had, and continues to have, many collaborative relationships, the idea of formal partnership with nearby famous Universities, IITs and NITs for quality improvement already been introduced to UIT and it will be firmly in operation after the TEQIP project is over. The sustainability of this program will depend on the experience of both parties. As it is clear that by this networking programme both will feel about the benefits and prospects of this partnership and expect to overcome any hurdles that might exist in that path. Excellence cannot be achieved in isolation. This project will provide invaluable learning experiences about the nature of collaboration between institutions and provide a knowledge base that will be useful for future initiatives. Great attention will therefore be paid during this project not only to the results of collaboration but to the process of collaboration itself, which will be evaluated regularly, and corrective actions will be taken to ensure its success and its future sustainability or expansion.

Equity Action Program

The Equity Action program(EAP) is dear to the hearts of many UIT faculty and is already sustained by their personal volunteer initiatives. The objective of the equity action plan is “to ensure that all students and faculty in the project institutions have equal opportunity to avail of the benefits of the project with substantial improvement in the performance of weak students.” Once formulated the institutions are bound to implement the EAP during the project period and beyond the project period. So at the end of the TEQIP-II project the institute will be in a position to **(i) identify weak students (ii) implement Student-centered strategies to improve performance (iii) Enhance classroom teaching and teacher effectiveness, and beyond the teacher (iv)Improve Course-curriculum and content and Augment Placement Cell.** The EAP will sustain beyond the project period because of internal urges of faculties as well as system adopted during the project.

Organizational Development Program

The organizational development program is, by its very nature, a temporary activity, helping to shape a new organizational culture. Once established, systems and procedures will become part of the organizational culture and will continue operating. Most system development efforts will occur during the first two years of the project. UIT will therefore have two years to stabilize newly introduced behaviors, until the next set of organizational challenges come along. But by then UIT will have learned a new skill of managed organizational change and become a dynamic learning organization. Commitment to change and comfort with change are more important than the systems being introduced. It is for this reason that the project design pays great attention to changing attitudes and creating the right climate and dynamics for change in the first year of the project.

Ensuring Adequate Fund Flow

The prospects for financial sustainability, with adequate core funding from the government and the right policy environment, are good. UIT already has demonstrated its ability to generate funds through R&D projects, consultancy, donations, and to a certain extent, its endowments. With partial autonomy at present, it has the added flexibility of increasing student fees. The two new courses that are being started are a test of that capacity. The project will have improved

UITs networking and public relations capacity and helped it better tapped its alumni and other networks, which will further increase its capacity to generate funds. As mentioned above, UIT's capacity to generate project and consultancy revenue also hinges on the quality of the faculty that can be inducted during the period of the project and its proper orientation and training.

- 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.**

Table – 31

18-month Procurement Plan for Works and Goods* for Sub-Component 1.1

Name of the institution with location:

Package No.	Sl. No.	Activities	Description of works / Goodse	Estimated cost (Rs)	Method of Procurement	Design/ Investigation completed/ Specification finalization (Date)	Estimate Sanctioned (Date and Value)	Preparation of Bid Document (Date)	Receipt of Bank' 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

1													
2													
3													

*Goods covers 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 as appropriate.

For Table 31 & 32, Please see finally approved PMSS attached.

Table – 32

**2.16 18-month 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 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	15
1														
2														
3														

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

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

@ state whether (i) single firm of individual; or (ii) Competitive. If Competitive, then state whether Quality and cost Based Selection (QCBS) or Quality Based Selection (QBS)

2.17 Provide any other information related to special achievements as given in eligibility proposal of the Institution.

- An international **patent** has been filed on **"Fixed Overlapped Subarray Architecture For Wideband Phased Array with Interference Suppression"** jointly with TCS, Bangalore by a faculty member in ECE/AEIE Department .

- More than 80% of students on an average got employment through campus in IT and Core industry sectors in the Blue Chip companies like SAIL, BEL, JINDALS, IBM, TCS, INFOSYS, WIPRO, COGNIZENT etc. during the last three years.
- University of Burdwan got four star status by NAAC during its first accreditation in the year 2001. It is re-accredited in the year 2008 with a score of 80.5% .
- Recently University of Burdwan has ranked 17th out of 50 top most Indian university according to the CSIR rating
- MOU has been signed with Heidelberg University for Network collaboration.
- Institute has been accredited by Tata Consultancy Services.
- MOU has been signed with IBM for academic alliance.
- More than 40 papers have been published in refereed journals in last three years.
- UIT has organized a NATIONAL CONFERENCE ON COMPUTING AND COMMUNICATION SYSTEM (CoCoSys-09) on January 02-04 2009.

• Various Grants achieved

a) AICTE, RPS Scheme	Rs. 918000
b) AICTE, MODROB Scheme	Rs. 200000
c) AICTE, National Conference	Rs. 62500
d) Central govt. NSS	Rs. 27000
e) WBREDA, REC	Rs. 15000
f) MPLAD, Development	Rs. 5000000
g) AICTE, SDP Scheme	Rs. 117855
h) DST, Govt. of West Bengal	
EAC Scheme	Rs. 20000

Student Achievement:

- Nikhil Chadha of ECE 1st Year won FIRST PRIZE on the event - Investophile (Finance Game) in the "Confluence 2008" organized by The ICFAI National College, Burdwan, held on 25/01/08.
- Rubana Aafreen of ECE 2nd Year won SECOND PRIZE on the event - Extempore (Land Phone Vs Mobile Phone) in the "Confluence 2008" organized by The ICFAI National College, Burdwan, held on 25/01/08.
- Rahul Saurav won SECOND PRIZE on the event Model Competition (Name of Model: Ocean Thermal Energy Conversion) in Akshay Urja Diwas 2008
- Devvrata Priyadarshi won SECOND PRIZE on the event Model Competition (Name of Model: Ocean Thermal Energy Conversion) in Akshay Urja Diwas 2008

- Ugra Mohan Kumar won SECOND PRIZE on the event Model Competition (Name of Model: Ocean Thermal Energy Conversion) in Akshay Urja Diwas 2008
- Mukesh Kumar Singh won SECOND PRIZE on the event Model Competition (Name of Model: Untapped energy to Electrical Energy) in Akshay Urja Diwas 2008
- Shamail Ahmad won SECOND PRIZE on the event Model Competition (Name of Model: Untapped energy to Electrical Energy) in Akshay Urja Diwas 2008
- Rakesh Ranjan Sinha won SECOND PRIZE on the event Model Competition (Name of Model: Untapped energy to Electrical Energy) in Akshay Urja Diwas 2008
- Ashutosh Kumar won SECOND PRIZE on the event Quiz Competition in Akshay Urja Diwas 2008
- Ayush Kumar won SECOND PRIZE on the event Quiz Competition in Akshay Urja Diwas 2008
- Ravi Prakash won SECOND PRIZE on the event Quiz Competition in Akshay Urja Diwas 2008
- Sushant Satyam won SECOND PRIZE on the event Extempore Competition in Akshay Urja Diwas 2008
- Abhishek Kumar won SECOND PRIZE on the event Extempore Competition in Akshay Urja Diwas 2008
- Debalina Ghosh has passed pH test conducted by eLitmus Evaluation Pvt. Ltd. in the year 2009
- Mitra Roy has passed pH test conducted by eLitmus Evaluation Pvt. Ltd. in the year 2009
- Rakesh Chandra Maity has passed pH test conducted by eLitmus Evaluation Pvt. Ltd. in the year 2009
- Sagarika Naskar has passed pH test conducted by eLitmus Evaluation Pvt. Ltd. in the year 2009
- Second Prize - Automation and Enhancement of Tea Manufacturing by controll environment fermentation of tea and endpoint detection and gradation using image sensing.Organized by TechTop-2009
- First, Second and third prize winners in Science Exhibition, Third Prize winner in Extempore of Rajiv Gandhi Akshay Urja Diwas 2010 competitions organized by WBREDA, Govt of West Bengal at Sarat Sadan Howrah on 20th August 2010
- **(Please see annexure-18 for MOU with National/International Institutions & annexure-19 for Certification from the Head of the Organisation for truthfulness of data)**
