INSTITUTIONAL DEVELOPMENT PROPOSAL

(TEQIP-II)

Sub-Component 1.1 :
Strengthening Institutions to improve Learning Outcomes and employability of Graduates

Submitted to

National Project Implementation Unit, New Delhi

(NPIU)

through

Directorate of Technical Education & Industrial Training (PUNJAB), CHANDIGARH

Submitted by

BEANT COLLEGE OF ENGINEERING & TECHNOLOGY, GURDASPUR – 143521

(Established by Government of Punjab)

ACCREDITED BY NATIONAL BOARD OF ACCREDITATION, NEW DELHI

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 : Beant College of Engg. & Tech., Gurdaspur
- Is the Institution AICTE approved? : Yes
- Furnish AICTE approval no. : North-West/1-6098731/2010/EOA dt. 23.08.10
- Type of Institution : Govt. funded
- Status of Institution : Autonomous Institute

- Name of Head of Institution and Project Nodal Officers

Head and Nodal Officer	Name	Phone Number	Mobile Number	Fax Number	E-mail Address
Head of the Institution (Full time appointee)	Dr. Dial Chand	01874-221463, 64	91-8872217778	01874-221463	principalbcetgsp@gmail.com
TEQIP Coordinator	Dr. Arvind Kumar Associate Professor	01874-221463, 64	91-9872615601	01874-221463	arvind_bcet@yahoo.com
Project Nodal Officers for:					
Academic Activities	Dr. Amarpal Singh Associate Professor	01874-221463, 64	91-9855715741	01874-221463	s_amarpal@yahoo.com
Civil Works including Environment Management	Sh. B.B. Saini Assistant Professor	01874-221463, 64	91-9855566294	01874-221463	brijbsaini@yahoo.co.in, brijbsaini@gmail.com
Procurement	Sh. Vipan Kumar Assistant Professor	01874-221463, 64	91-9888220918	01874-221463	vipan752002@indiatimes.com
Financial aspects	Sh. S.K. Gupta Associate Professor	01874-221463, 64	91-9876562205	01874-221463	skgbcet1965@rediffmail.com
Equity Assurance Plan Implementation	Sh. Baljeev kumar Assistant Professor	01874-221463, 64	91-94171-98711	01874-221463	baljeevk@yahoo.co.in

1.2 Academic Information:

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

S. No	Title of programmes	Level (UG, PG, PhD)	Duration (Years)	Year of starting	AICTE sanctioned
1.	Chemical Engineering	UG	4	1996	30
2.	Bio Technology	UG	4	2006	60
3.	Computer Science & Engineering	UG	4	1995	90
4.	Electronics Communication & Engg.	UG	4	1997	60
5.	Mechanical Engg.	UG	4	1995	90
6.	Information Technology	UG	4	2001	60

***10% seats of annual intake (over & above) are filled as Economically Weaker Category as directed by AICTE, New Delhi**

- **Accreditation Status of UG programmes:**

Title of UG programmes being offered	Whether eligible for accreditatio	Whether accredited as on 31st March 2010?	Whether "Applied for" as on 31st March
Chemical Engineering	Yes	No	No
Bio Technology	No	No	No
Computer Science &Engineering	Yes	Yes (Accreditated for three years w.e.f 10.07.2009)	-
Electronics Communication & Engg.	Yes	Yes (Accreditated for three years w.e.f 10.07.2009)	-
Mechanical Engg.	Yes	Yes (Accreditated for three years w.e.f 10.07.2009)	-
Information Technology	Yes	No	No

- **Accreditation Status of PG programmes: N. A.**

Title of PG programmes being offered	Whether eligible for accreditatio	Whether accredited as on 31st March 2010?	Whether "Applied for" as on 31st March
M. Tech. (Thermal Engg.)	No	No	No

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

Faculty Rank	No. of Sanctioned Regular Posts	Present Status : Number in Position by Highest Qualification												Total Number of regular faculty in Position	Total Vacancies	Total Number of contract faculty in Position
		Doctoral Degree				Masters Degree				Bachelor Degree						
		Engineering Disciplines		Other Disciplines		Engineering Disciplines		Other Disciplines		Engineering Disciplines		Other Disciplines				
		R	C	R	C	R	C	R	C	R	C	R	C			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15= (3+5+7+9+11+13)	16= (2-15)	17= (4+6+8+10 +12+14)
Prof	14	3+ 3*	-	1+ 1*	-	-	-	-	-	-	-	-	-	08	06	00
Asso Prof	-	3	-	5		8	-							16	-	00
Asst Prof	28+ 56**					21	-	7	-	20	10		-	48	36	10
Lec																
Total	98	9	-	7		29		7		20	10			72	42	10

Prof = Professor, Asso Prof = Associate Professor, Asst Prof = Assistant Professor, Lec =Lecturer, R=Regular, C=Contract
* Has become eligible for Professor under CAS ** Earlier lecturer, but redesignated Asstt.Professor in the revised pay scale

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

CHE + BT

S. No	Parameters	
1	Total strength of students in all programmes and all years of study in the year 2009-10	351
2	Total women students in all programmes and all years of study in the year 2009-10	161
3	Total SC students in all programmes and all years of study in the year 2009-10	44
4	Total ST students in all programmes and all years of study in the year 2009-10	---
5	Total OBC students in all programmes and all years of study in the year 2009-10	11
6	Number of fully functional P-4 and above level computers available for students in the year 2009-10	40
7	Total number of text books and reference books available in library for UG and PG students in the year 2009-10	
8	% of UG students placed through campus interviews in the year 2009-10	
9	% of PG students placed through campus interviews in the year 2009-10	
10	% of high quality undergraduates (>75% marks) passed out in the year 2009-10	20%
11	% of high quality postgraduates (>75% marks) passed out in the year 2009-10	--
12	Number of research publications in Indian refereed journals in the year 2009-10	2
13	Number of research publications in International refereed journals in the year 2009-10	5
14	Number of patents obtained in the year 2009-10	--
15	Number of patents filed in the year 2009-10	--
16	Number of sponsored research projects completed in the year 2009-10	-
17	The transition rate of students in percentage from 1st year to 2nd year in the year 2009-10 for : (i) all students (ii) SC (iii) ST (iv) OBC	100% (i) 100% (ii) 100% (iii) - (iv) 100%
18	IRG from students' fee and other charges in the year 2009-10 (Rs. In lakh)	-
19	IRG from externally funded R&D projects, consultancies in the year 2009-10 (Rs. in lakh)	--
20	Total IRG in the year 2009-10 (Rs. in lakh)	--
21	Total annual recurring expenditure of the applicant entity in the year 2009-10 (Rs. in lakh)	

Computer Sc. & Engg.

S. No	Parameters	
1	Total strength of students in all programmes and all years of study in the year 2009-10	94
2	Total women students in all programmes and all years of study in the year 2009-10	50
3	Total SC students in all programmes and all years of study in the year 2009-10	21
4	Total ST students in all programmes and all years of study in the year 2009-10	Nil
5	Total OBC students in all programmes and all years of study in the year 2009-10	1nil
6	Number of fully functional P-4 and above level computers available for students in the year 2009-10	134
7	Total number of text books and reference books available in library for UG and PG	
8	% of UG students placed through campus interviews in the year 2009-10	
9	% of PG students placed through campus interviews in the year 2009-10	NA
10	% of high quality undergraduates (>75% marks) passed out in the year 2009-10	39.4%
11	% of high quality postgraduates (>75% marks) passed out in the year 2009-10	NA
12	Number of research publications in Indian refereed journals in the year 2009-10	
13	Number of research publications in International refereed journals in the year 2009-10	04
14	Number of patents obtained in the year 2009-10	Nil
15	Number of patents filed in the year 2009-10	Nil
16	Number of sponsored research projects completed in the year 2009-10	-
17	The transition rate of students in percentage from 1st year to 2nd year in the year 2009-10 for : (i) all students (ii) SC	 100% 100%
18	IRG from students' fee and other charges in the year 2009-10 (Rs. In lakh)	-
19	IRG from externally funded R&D projects, consultancies in the year 2009-10 (Rs. in lakh)	-
20	Total IRG in the year 2009-10 (Rs. in lakh)	-
21	Total annual recurring expenditure of the applicant entity in the year 2009-10 (Rs. in lakh)	

Information Technology

S. No	Parameters	
1	Total strength of students in all programmes and all years of study in the year 2009-10	65
2	Total women students in all programmes and all years of study in the year 2009-10	28
3	Total SC students in all programmes and all years of study in the year 2009-10	15
4	Total ST students in all programmes and all years of study in the year 2009-10	Nil
5	Total OBC students in all programmes and all years of study in the year 2009-10	Nil
6	Number of fully functional P-4 and above level computers available for students in the year 2009-10	139
7	Total number of text books and reference books available in library for UG and PG	
8	% of UG students placed through campus interviews in the year 2009-10	
9	% of PG students placed through campus interviews in the year 2009-10	NA
10	% of high quality undergraduates (>75% marks) passed out in the year 2009-10	53%
11	% of high quality postgraduates (>75% marks) passed out in the year 2009-10	NA
12	Number of research publications in Indian refereed journals in the year 2009-10	
13	Number of research publications in International refereed journals in the year 2009-10	04
14	Number of patents obtained in the year 2009-10	Nil
15	Number of patents filed in the year 2009-10	Nil
16	Number of sponsored research projects completed in the year 2009-10	-
17	The transition rate of students in percentage from 1st year to 2nd year in the year 2009-10 for : (i) all students (ii) SC	 100% 100%
18	IRG from students' fee and other charges in the year 2009-10 (Rs. In lakh)	-
19	IRG from externally funded R&D projects, consultancies in the year 2009-10 (Rs. in lakh)	-
20	Total IRG in the year 2009-10 (Rs. in lakh)	-
21	Total annual recurring expenditure of the applicant entity in the year 2009-10 (Rs. in lakh)	

Electronics & Comm. Engg.

S. No	Parameters	
1	Total strength of students in all programmes and all years of study in the year 2009-10	**271**
2	Total women students in all programmes and all years of study in the year 2009-10	**67**
3	Total SC students in all programmes and all years of study in the year 2009-10	**52**
4	Total ST students in all programmes and all years of study in the year 2009-10	**0**
5	Total OBC students in all programmes and all years of study in the year 2009-10	**16**
6	Number of fully functional P-4 and above level computers available for students in the year 2009-10	**54**
7	Total number of text books and reference books available in library for UG and PG	
8	% of UG students placed through campus interviews in the year 2009-10	
9	% of PG students placed through campus interviews in the year 2009-10	
10	% of high quality undergraduates (>75% marks) passed out in the year 2009-10	**20%**
11	% of high quality postgraduates (>75% marks) passed out in the year 2009-10	**-**
12	Number of research publications in Indian refereed journals in the year 2009-10	**14**
13	Number of research publications in International refereed journals in the year 2009-10	**37**
14	Number of patents obtained in the year 2009-10	**-**
15	Number of patents filed in the year 2009-10	**-**
16	Number of sponsored research projects completed in the year 2009-10	**-**
17	The transition rate of students in percentage from 1st year to 2nd year in the year 2009-10 for : (i) all students (ii) SC	 **100%** **100%**
18	IRG from students' fee and other charges in the year 2009-10 (Rs. In lakh)	**-**
19	IRG from externally funded R&D projects, consultancies in the year 2009-10 (Rs. in lakh)	**-**
20	Total IRG in the year 2009-10 (Rs. in lakh)	**-**
21	Total annual recurring expenditure of the applicant entity in the year 2009-10 (Rs. in lakh)	

Mech. Engg Deptt.

Sr. No.	Parameters	
1.	Total strength of students in all years of study in the year 2009-10	407
2.	Total women students in all years of study in the year 2009-10	02
3.	Total SC students in all years of study in the year 2009-10	85
4.	Total ST students in all years of study in the year 2009-10	NIL
5.	Total OBC students in all years of study in the year 2009-10	20
6.	Number of fully functional P-4 and above level computers available for students in the year 2009-10	54
7.	Total no of text books and reference books available in library for UG and PG students in the year 2009-10	5474
8.	% of UG students placed through campus interviews in the year 2009-10	48%
9.	% of PG students placed through campus interviews in the year 2009-10	Nil
10	% of high quality UG (>75% marks) passed out in the year 2009-10	10%
11	% of high quality PG (>75% marks) passed out in the year 2009-10	Nil
12	Number of research publications in Indian refereed journal	Nil
13	Number of research publications in Indian refereed journal	27
14	Number of patents obtained in the year 2009-10	Nil
15	Number of patents filed in the year 2009-10	Nil
16	Number of sponsored research projects completed in the year 2009-10	Under Progress
17	The transition rate of students in % from 1st yr to 2nd year 2009-10 (i) All students (ii) SC (iii) ST (iv) OBC	 20% NIL NIL 60%
18	IRG from students fee and other charges in the year 2009-10 (Rs. In Lakh)	0.95 L
19	IRG from externally funded R & D projects , consultancies in the year 2009-10 (Rs. In Lakh)	0.21 L
20	Total IRG in the year 2009-10 (Rs. In Lakh)	1.16 L
21	Total annual recurring expenditure of the applicant entity in the year 2009-10 (Rs. In Lakh)	85 L (Approx.)

2.1 Give the Executive Summary of the IDP

The state of Punjab has always been forerunner in contributing towards the development of the Country. With the information technology revolution sweeping the world, an urgent need was felt to place Punjab on the map of the country. Therefore, to accelerate the spread of technical and professional education, 03 engineering institutions funded by Government of Punjab came into existence in the year 1990 and 1995.

Beant College of Engineering and Technology, Gurdaspur (BCET) was established by the government of Punjab as an autonomous college, through a Registered Society. The foundation stone was laid on February 28, 1994 and the college was inaugurated on August 20, 1995 by the then Chief Minister, Late Sardar Beant Singh. The College imparts instructions in six disciplines, namely Chemical Engineering, Computer Science & Engineering, Electronics and Communication Engineering, Information Technology, Mechanical Engineering, Production Engineering. The college has been planned not only to keep pace with the advancements in these frontal areas of Technology, but also to attain a leading position in the global scenario. The college is affiliated to Punjab Technical University (PTU), Jalandhar and is approved by the All India Council of Technical Education.

The institute has been set up with a view:

- To offer an inspiring learning environment, which transforms our bright young scholars into talented, creative & trained professionals.
- To create a base for the absorption of technological invocations and transferring the same for the benefit and development of Punjab and the country as a whole.
- To develop human potential to its fullest extent so that intellectually capable and imaginatively gifted leaders can emerge in a range of professions.
- To create a center of excellence for providing 'Quality Education', Teaching, Research and Consultancy in the fields of Engineering.

With India opening its doors to multinational corporations and the advent of globalization and technological advancement, the need for improvement of quality in Technical Education system in the country is acutely felt to meet the requirements of industry and to enhance its effectiveness, efficiency and outreach for societal development.

The Institute is a mixed blend of different streams of emerging and ever green technologies and is situated in Majha belt of state. Keeping in view, its strategic location on the international border and its opening for trade and commerce, huge increase in economic activity in near future is expected and consequent demand of goods & services can only be met by Engineers of different streams equipped with latest technological knowhow. Thus the present day, need is best met by broad based programmes with latest inputs. The individual engineering disciplines have witnessed an explosion in knowledge with the emergence of new technologies and new trends and also with the increasing role of Computer and Information Technology. In addition to it the worldwide growth of industry and the new economic policy of the nation offer vast number of opportunities to engineering professionals. The ever-increasing demands of technocrats at home and abroad require professionals of high quality.

The long-term objective of this project will include the achievement of academic excellence and autonomy. The project period will include a time span of 10 years with initial years devoted for generation of resources and development of infrastructure and then utilizing these resources for achievement of academic excellence. Compared to 10,000 Masters degree-holders/year and 800 Ph.D. degree holders/year in computer science in USA, only 300 M. Tech degree & 25 Ph.D. holders/year in computer science are produced in our country. For the country to move up the value chain in IT , Bio- Tech industries in particular and to become a super power in knowledge-based industry in general, it is essential to give greater importance to postgraduate education and research. This would be essential if we wish to graduate from mere users of Technology to generators of Technology products and services and wish to become internationally competitive. Recent trends in state are encouraging and there is a greater sense of security and stability and this, combined with the movement towards a market-driven economy, is the right stimulus for an enhanced rate of industrialization. Demand of Technical professionals is increasing tremendously. India being in stage of developing country & at the threshold of getting catapulted to developed country , in addition to ever increasing increase in requirement of Technocrats in conventional streams of Engineering with more emphasis on new innovations in the field, there is huge scope of new emerging fields of Engineering like I.T, Bio Technology and Nano Technology. According to IT Task Force estimates, IT industry would reach a level of US $100 billion by 2008, of which US $50 billion would be for software export, US $ 30 billion for domestic

software consumption and US$ 20 billion for the hardware sector. Similarly Indian biotechnology sector surged 36.5% in 2004-05 To achieve the target level, availability of quality manpower in all these Engineering disciplines is most crucial. With the available resources as demanded in our proposal the Institute will cater the needs of Punjab and adjoining area in particular and national and international demand in general. Under the different laboratories setup in the Institute will serve the community by providing quality education and research facilities. There fore, there is an urgent need for upgrading the quality and training of engineers coming out of engineering colleges and university departments. The disadvantaged groups are poorly represented in higher science & technical education in spite of special efforts being made such as special coaching, reservation of seats, award of fellowships / Associateships etc. There is a need to support some of the good performing institutions under technical education system to be upgraded as ***centres of excellence*** eligible for academic autonomy offering technician degree courses in new and emerging technology areas. This will provide an opportunity to the students for vertical mobility. The Institute is looking forward to begin with the programme, as it is already having strong fundamentals and is a fit case for the up-gradation.

2.2 Provide the details of SWOT analysis (see Annex-V to PIP) carried out (in terms of methodology used, analysis and information and data as collected and inferences derived with respect to strengths, weaknesses, opportunities and threats).

Institutional Vision

Achieving loftier heights by exploring new frontiers of education, research and consultancy in the field of Engineering & Technology equipping our students with the latest state of the art technological advancements all over the world.

Our Mission

- Creation of a sustained learning environment of acquiring technical knowledge and professional application of the same.
- Inculcating amongst our students a deep understanding of the fundamental principles, concepts and practices of their respective branches of Engineering.

- Creating conducive environment for innovation to translate theoretical knowledge to practical application.
- Preparing budding engineers to meet the ever increasing technological and social challenges with its traditions of self discipline, hard work, all round personality development and a creative approach.
- Maintaining Accountability toward all profession through the process of self evaluation and continuous improvement.
- Development of Human Resources to save the cause of Nation Building.
- Development & strong linkages with research institutions and industrial R & D Units.
- Providing a useful interface between the faculty and field engineers to exchange academic/practical knowledge.
- Participate meaningfully.

SWOT Analysis

Strength:

- Focus approach on building/Infrastructure-state of art facilities.
- Comparatively strong central facilities like Computer Centre, Central Workshop and Library, play grounds, hostel facility.
- Sufficient qualified and experienced faculty and staff.
- Has many MODROB/TAPTEC/R&D projects of AICTE to its credit.
- Already in receipts of grants from central government funding Agencies.
- Covering boarder districts in particular but as whole in the state it is having largest area of influence in terms of admission of students and production of engineering manpower
- Financial Autonomy.
- Placements in Industries of Punjab & neighboring areas, government Agencies in addition to some Multi national companies.
- Added advantage being the best managed and performing government established institute of the state.
- Cohesive academic and clean environment situated outside the city.

Weakness :

- Inadequate Grant-in-aid
- No-Academic Autonomy
- Locational Disadvantage with particular reference to placement.
- Lack of industrial infrastructure in near by areas.
- Admission is not on all India merit basis.
- Educationally backward area.

Opportunity:

- Academic Autonomy and Functional Autonomy so as to cater the need of industries by continuously updating the curriculum and facilities with the changing demands of market: Deemed University, centre of excellence.
- Training & Consultancy centre
- To promote self employment in the area by starting vocational courses
- To promote the concept of digital library which will be first of its kind in the Punjab
- Young faculty development programmes
- Entrepreneurship Development Centre to cater the need of entrepreneurs
- Admission on All India basis i.e. centralized leading to Industrial collaborations & MOU.
- Projects with Industry Govt. Organizations & family owned business houses leading to R & D centre with the Institute.
- Distance Education/ E-learning programmes.
- To explore new horizons in research work/studies.

Threats:

- Less employment opportunities
- Lack of Academic Autonomy: Dependence upon traditional curriculum.
- Privatization of Professional Education.
- Decreasing number of admissions in Production and Chemical Engineering.

Strategic Plan

As the Institute has been the leader in the area of Technical Education, this can be used to achieve the academic excellence in the field of Technical Education by getting the status of

center of excellence. With the promotion of industrial consultancy by strengthening the existing infrastructure and adding a few in the emerging areas of technology, it can cater to the needs of the society and industry. With the achievement of academic excellence and financial competency, the institute can utilize its resources to serve the near by community. With the changing needs of industries as well as society, suitable courses will be started to impart excellent techniques and strategies to achieve the objectives.

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

Objectives of the project linked with SWOT analysis include the following:

1. Academic & Financial Automony.
2. Establishment of a mechanism to translate knowledge into technical & managerial solutions with the objective of offering technology related services.
3. Utilization of the existing academic potential, R & D competency, technology sources and develop a strong network with this top notch educational organizations.
4. Maintenance, coordination & promotion of consultancy activities, seminars/workshops conferences etc.
5. Industry institute development and partnership with the industry, exchange of personnel between the industries and institute by way of involving them in delivering lectures on latest technological growth, joint projects, evaluation of projects, development of curricula as per industry need and to encourage industry for collaboration.

2.4 Provide an action plan for

a) Improving employability of graduates

In the present scenario, more number of Engg. graduate are passing out every year, placement of these students is the major issue. Employability of young graduates is becoming a major concern in today's competitive Environment. Employability means 'A set of skills, knowledge and personal attributes that makes an individual more likely to secure and be successful in their chosen occupation to the benefit of themselves, the workforce, the community and the economy'. Employability skills are required not only to gain job but also to progress with an organization. The skills that mainly required are Communication skills ,Teamwork skills, Problems solving skills, Self management skills, Planning & organizing skills, Technology skills ,Life-long learning skills ,Initiative and enterprise skills , along with integrity & reliability, confidence, character & good personality as personal attributes .To improve the employability of graduates a lot of initiative & efforts are required .The main points that need to be improved are given below:

- There is a need of improvement in all skills that are required for employability by doing improvement in curriculum and teaching methods.
- There is a need of improving skill development according to industry demand. IT companies demand advanced computer skills and communication in English, while infrastructure firms want engineers with strong knowledge of math and abilities to use modern tools and technologies. Qualities have to be improved as per demand of Industries.
- Employability of students can also be improved by interaction of faculty & dean of different department of the college with employers to design education programmes that respond to the specific skill demands of the employers.
- Employability skills can be best learned through interactive and experiential learning curriculum where a person first experiences something and then derives the learning from that activity.
- Improvements can be made by giving more support to students to get work experience, extra support needs to be given to creative graduates, career guidance & career coaching to be offered to boost confidence .
- Entrepreneurship skill needs to be improved for generating young entrepreneur as per industry need.
- More Industry-institute interaction have to be made to explore job opportunities.
- Teaching-learning process has to be improved.

b) Increased learning outcomes of the students

Although Department of Computer Sc. & Engg. is accredited by National Board of Accreditation yet it lacks in many areas. Existing faculty find it difficult to pursue the research because of non-availability of required resources such as computers and software and also funds to publish their research work at International forum. Same way students of CSE & IT department could pursue their project and thesis work. Now through TEQIP scheme, funds and resource availability would not be a problem, and thereby faculty and students of the department can work in a more productive way.

The department of Mechanical Engineering considers student as one of the important stake holder and working hard to the best of their satisfaction. In-spite of it, few short comings are currently existing in the input quality of students which will be improved through the implementation of proper action plan.

- The input of the students in terms of their comprehensive and analytical quality is very much lacking and can be improved by upgrading the learning resources. Efforts will be made in arranging good quality of text books, improving the quality of teaching in the class rooms as well as in the laboratories by incorporating the increased use of technology. The efforts will be made to present the video regarding of the working of a machine and important concepts before the start of the experiment in the laboratories , which will helpful in the proper understanding of the courses.
- The modernization of lab and library resources will be helpful in motivating the students to work and solve on realistic engineering problems in projects and assignments, it will able to make them face the industrial challenges. An improvement in the confidence level of students will make them successful engineer.
- Efforts shall also be made for the weaker section of the students for arranging remedial classes and the students will be encouraged to join these classes.
- Efforts shall also be made in improving the faculty qualification and encouraging for increased participation in seminar, conferences and short term courses. The trained faculty can deliver in a better way in the class rooms.
- Apart from the class room teaching, the students will be encouraged for the participation of the case studies, group discussion and seminar etc, which will improve the learning outcome of the students.

c) Obtaining autonomous institution status within 2 years

The institute has been established by the Government of Punjab and is an autonomous institute registered under the society act. The institute is in a process to obtain the academic autonomy status from the affiliating Punjab Technical University, Jalandhar. The constituted Board of Governors of the institute is as under :

Constitution of Board of Governors

1.	Technical Education Minister, Punjab	Chairperson
2.	Secretary to the Government of Punjab, Department of Finance	Member
3.	Secretary to the Government of Punjab, Department of Technical Education	Member
4.	Secretary to the Government of Punjab, Department of Science and Technology, & Environment	Member
5.	Director, Technical Education, Punjab	Member
6.	One MLA. holding a Technical Degree	Member
7.	Not more than two members from amongst Govt. of India/All India Institutions	Member
8.	Any other two members whose experience is considered relevant to the cause of technical education of management of the colleges. These could also be chosen out of Senior State Govt. Officers	Member
9.	The Vice-Chancellor of the affiliating University of his nominee (Earlier it was GNDU, Amritsar)	Member
10.	Industrial/Technologist in the region to be nominated by the State Government	Member
11.	Industrialist/Technologist in the region to be nominated by the State Government	Member
12.	Nominee of the University Grants Commission	Member
13.	One representative of the faculty from amongst Professors for one year to be nominated by the Chairperson Board of Governors	Member
14.	One representative from other faculty for one year to be nominated by the Chairperson Board of Governors	Member
15.	Chairman/Chairperson, Punjab State Board of Technical Education & Industrial Training, Punjab	Member
16.	Principal of the Beant College of Engineering & Technology, Gurdaspur	Ex-Officio Member Secretary

Three other committees are as follows:

Finance Committee

1.	Principal Secretary, Govt. of Punjab, Department of Technical Education & Industrial Training	Chairman
2.	Principal Secretary, Govt. of Punjab, Department of Finance	Member
3.	Director, Technical Education & Industrial Training, Punjab	Member
4.	Principal, Beant College of Engineering & Technology, Gurdaspur	Member
5.	Registrar, Beant College of Engineering & Technology, Guredaspur	Member Secretary

Builidngs & Works Committee

1.	Principal Secretary, Govt. of Punjab, Department of Technical Education & Industrial Training	Chairman
2.	Director, Technical Education & Industrial Training, Punjab	Member
3.	Director, Sant Longowal Institute of Engineering & Technology, Longowal	Member
4.	Director, National Institute of Technology, Jalandhar	Member
5.	Chief Engineer, PWD B&R, Punjab	Member
6.	Chief Architect, Punjab	Member
7.	Chief Engineer, National Buildings Construction Corporation Ltd.	Member
8.	Principal, Beant College of Engineering & Technology, Gurdaspur	Member Secretary

Equipment & Store Purchase Committee

1.	Director, Technical Education & Industrial Training, Punjab	Chairman
2.	Representative of the Finance Department (Not below than rank of Deputy Secretary)	Member
3.	Principal, Beant College of Engineering & Technology, Gurdaspur	Member
4.	Head of Department/Professor/Assistant Professor of the concerned Department	Member
5.	One expert in the relevant field in which purchases are being made from any of the following institutes: National Institute of Technology, Jalandhar Giani Zail Singh College of Engineering & Technology, Bathinda Thapar Institute of Engineering & Technology, Patiala Guru Nanak Dev Engineering College, Ludhiana Sant Longowal Institute of Engineering & Technology, Sangrur	

d) Achieving the targets of 60% of the eligible UG and 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 and PG programmes

The institute has already got the accreditation status from the National Board of Accreditation, New Delhi for 03 engineering disciplines (Computer Science & engineering, Electronics & communication Engineering and Mechanical Engineering) for a period of 03 years w.e.f. 10.07.2009 vide reference letter no. F. No. NBA/ACCR-941/2007 dated July, 2009. The institute is in a process to apply to seek the accreditation status from the National Board of

Accreditation, New Delhi for the remaining engineering disciplines, Bio-Technology, Chemical engineering and Information Technology.

e) Implementation of academic and non academic reforms

Full Academic autonomy with accountability

The full academic autonomy is required to develop the curriculum to meet the needs of industry and society. The status of deemed university will be demanded from the govt. for this purpose after getting the accreditations from NBA

Full Managerial autonomy with accountability

The institute has already been provided the managerial autonomy of Punjab as the institute is governed by establishing the Board of Governors headed by BOG includes the educationists and industrialists along with other official members.

Full Administrative autonomy with accountability

The institute has already been provided the managerial autonomy by the government by establishing the Board of Governors headed by TEM-cum-BOG includes the educationists and industrialists along with other official members. The institute is governed by the administrative bodies like AICTE. The pay scales and recruitment process is fully controlled under rules framed by AICTE from time to time.

Full Financial autonomy with accountability

The institute would strive to achieve the full financial autonomy. The institute will provide the industrial consultancy to generate the funds required to achieve financial autonomy.

f) Improving interaction with industry

The Industry –Institute Partnership department would be established by the institute to increase the placement rate of the students to handle consultancy assignments and established specialized training centres for the industry. Industry- Institute interaction would provide an impetus for the economic growth of the state. With the help of this project, it is planned to develop a strong industry-institute partnership department by integrating the activities of product development centre for this purpose.

1. Need based Executive Development Programs.
2. Industry Institute Meets.
3. Seminars/Workshops/Conferences and other Training & Development
4. Data Centre for furthering interaction process.
5. Maintenance, Coordination & Promotion of consultancy services, establishment of links, with deptts., agencies etc.

6. Maintain & distribute funds obtained from consultancy services for strengthening of the Deptt.
7. Encourage industry to collaborate in industry study tour programs for students and faculty.
8. Organize Industrial Training and Industrial visits for the students and faculty. Organize Industrial exhibitions to highlight research facilities and expertise available at the institution.
9. Training of industrial personnel in the institute, exchange of personnel between the industries and institute by way of involving industry personnel in delivering lectures on latest technological growth, evaluation of project work, development of curricula as per industry need and other academic work in the institution.
10. Signing of MOUs
11. Generate funds from industry /other agencies for maintenance, development of the Deptt.
12. Starting of specialized courses of short duration in Engineering, Technology & Management areas after obtaining the necessary approval from the Centre, State and the University
13. Establishment of High Powered Advisory Board for Industry-Institute- Partnership.
14. Establish a mechanism to translate knowledge into technical solutions with the objective of offering technology related problem solving services and technology and management development solving services to industries.
15. Utilize the existing academic potential, R&D competency technology sources and develop a strong network with the industries.
16. Increase Industry-Institute-partnership so that a system can emerge wherein the local industry could get a effective solutions and the institute would possess self reliant profit center on the basis of need based projects.
17. Training centre for industry.

g) Enhancement of research and consultancy activities

To work as Nucleus Centre for providing consultancy. Information service, documentation etc. for solving the problems related to toolings of industries and to provide training facility in tool manufacturing and tool design to generate a work force of skilled workers, supervisor, engineers/designer etc. It will also be engaged in manufacturing jigs, fixture, cutting tools, gauges, press tool, plastic moulds, forging dies, pressure casting dies and other toolings for small-scale industries. Advanced tool techniques are to be adopted and to act as a common Facility Centre for small-scale industries and to assist them in product and prototype development. In addition to it different M. Tech. And Ph. D. Programmes will be started under the senior faculty members and the young faculty will be encouraged to pursue the Ph. D. Under various projects from central funding agencies. The institute had already completed some MODROB/TAPTEC/PROJECTS of AICTE and institution is looking forward for more projects including some R&D projects.

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.

Tribal Development Programs

The institute will organize various TDPs the form of following have accepted to implement the TDP at the eligibility stage.

a) Reservation of seats for SC/ST

Our institute is already providing the reservation as per govt. norms.

b) Implementation of programs and policies for the benefit of SC/ST community

Activities that could be undertaken are:

- Financial Assistance to the needy students by setting a corpus fund dedicated for the same purpose

-Special coaching for entrance tests

-Guidance and Counseling

- Free Hostel facilities

-Remedial teaching

-Self-learning packages

-Book Bank Facility (100% already being provided)

c) Improve academic skills and linguistic proficiency

MoUs will be signed with specialized institutes to

-Provide self-learning packages

-Provide language improvement coaching and facilities

d) Special drive for increasing participation of SC/ST women students

-Financial assistance in the form of scholarships

-Hostel facilities

-Local commuting facilities

-Special coaching for entrance tests.

-Remedial teaching

e) Establishment of PETCs

This will be done as per government policy frame work.

f) Promoting employment through specific

-Specialized training programs in the companies.

-Training through job oriented courses.

g) Decreasing drop out rate and increasing retention

-Provide flexible learning and evaluation

Same as at (b,c &d) above

2.6 Provide an action plan for strengthening of PG programmes and starting of new PG programmes.

M. Tech. (Nanotechnology)

Low-dimensional materials at Nano-scale exhibit many novel properties, which are very different from those in the bulk form. These Nano-materials offer new opportunities for potential technological applications in optical, magnetic, electronic and catalysis/devices as well as life sciences and challenges in understanding of their basic properties. The present proposal is aimed at bringing together the knowledge from multi-disciplinary areas to discuss the issues related to current status of science and technology in Nano-technology and the emerging areas such as Synthesis, Nucleation, Growth, Characterization, Atomic and Electronic Structure, Dynamics and Ultrafast Spectroscopy, Stability, Electrical, Magnetic, Optical, Thermodynamic, and Catalytic properties of Cluster materials, Bio-molecules, Bulk Nano-structured materials, Nano-structures, and Nano-technology.

Molecular Nano-technology is an anticipated manufacturing technology that would allow precise control and positional assembly of molecule-sized building blocks through the use of Nano-scale manipulator arms. Molecular Nano-technology is usually considered distinct from the more inclusive term "Nano-technology", which is now used to refer to a wide range of scientific or technological projects that focus on phenomena or properties of the nanometer scale (around 0.1-100 nm). Nano-technology is already a blossoming field, but molecular Nano-technology - the goal of productive, molecular-scale machine systems - is still in the preliminary research stage.

Nanotechnology was first introduced in 1959, in a talk by the Nobel Prize-winning physicist Richard Feynman, entitled "There's Plenty of Room at the Bottom". Feynman proposed using a set of conventional-sized robot arms to construct a replica of themselves, but one-tenth the original size, then using that new set of arms to manufacture an even smaller set, and so on, until the molecular scale is reached.

There are mainly two processes to get the materials in Nano-scale; ***Bottom up technique*** and ***Top to bottom technique***. The **Bottom up technique** consists of assembling the atoms and molecules to gather and stop the growth process at the desired size of the assembly of atoms and molecules. These processes are achieved by Wet Chemical Synthesis Route and by depositing the materials in the form of thin films in controlled environment.The **Top to bottom technique** consists of cutting away material until you have a completed component or product of desired size. It can be achieved by milling the materials using High-Energy Ball Mill.

Feynman's idea remained largely undiscussed until the mid-80s, when the MIT-educated engineer K. Eric Drexler published "Engines of Creation", a book to popularize the potential of molecular Nano-technology. Because Nano-technology would allow manufacturers to fabricate products from the bottom up with precise molecular control, a very wide range of chemically possible structures could be created. Since Nano-technology systems could put every molecule in its specific place, molecular manufacturing processes could be very clean and efficient. Also, because every little bit of matter in a molecular Nano-technology system would be part of a nano-scale manipulator, nanotechnological systems could be far more productive and maintain much higher throughputs than modern manufacturing techniques, which use macro-scale manipulators to fabricate products.

Why we want to understand nanotechnology?

The advent of self-replicating molecular nanomachines could quickly lead to "desktop nanofactories", tabletop appliances that consume modest amounts of power and contain the software required to manufacture an interesting range of useful products. The arrival of Nano-technology would revolutionize wide sectors of human activity, including Manufacturing, Medicine, Scientific Research, Communication, Computing, and Warfare. If we understand this technology and develop this, there are plenty of applications possible as listed above.

It is essential to introduce the course of Nano-technology at the initial stage of education in technological institute as one of the discipline to follow the development in this subject.

The following topics are to be covered for understanding the said field:

(a) Semi-Conducting Nano-Structures
(b) Optical materials at Nano Scale
(c) Magnetic Nano materials.
(d) Nano Phosphors

(e) Synthesization techniques: Solid State Reactions, Co-precipitation (Chemical Route), Thin films technology

(f) Characterizations of Nano materials

(g) Applications of Nano materials.

The various experimental facilities will be created to cater the needs of the U.G./P.G students of various engineering disciplines running in the institution i.e Computer Science & Engineering, Mechanical Engineering, Electronics Engineering, Chemical Engineering and Bio-Technology. The faculty of the college persuing their Ph.D. degree under the Quality Improvement Programme (QIP) in various leading intistues such as IIT Delhi, IIT Roorkee, etc. will be benefited to extend their know-how and expertise to excel their research and development persuits. The consultancy services will be provided to nearby industry and the interaction of the faculty in terms of experimental extracted data with the faculty of the nearby G.N.D.U., Amritsar and other USIC/RSIC at P.U. Chandigarh, CSIO, Chandigarh, will get enhanced manifold.

Moreover, a new M.Tech. programme in Nanotechnology will be started in the Department of Applied Sciences with an intake capacity of 18 students. The M.Tech. programme will be functional by creating the instructional instrumentation facilities in the proposed laboratories. The B.Tech. Students of final year of other engineering disciplines in the institute will also be benefited to work with the sophisticated instruments to be developed for the characterization of different types of materials. The existing faculty (Physics – 04 (Ph.D.), Mathematics – 01 (Ph.D.), 02 – M. Phil, 01 – Chemistry (Ph.D.) & 01-M.Sc.) in the department is sufficient to run the 1st and 2nd year of the M.Tech. programme. The M.Tech. (Nanotechnology) programme being envisaged will have a potential to transform and motivate the existing passing-out B.Tech.graduates into the said masters programme. We aim to establish a Centre of Excellence in the years to come thereby providing the opportunities to the passing out P.G. students to explore their creativity as a researcher, with the expertise of the faculty and potential of the sophisticated equipments.

M. Tech (CAD-CAM)

A PG course on Thermal Engineering in department of Mechanical Engineering was started since 2007 with the intake of a single student against the sanctioned strength of eighteen. The intake of students for PG course has continuously increased, and currently the seats are fully filled. It is an indicator for popularization of PG course.

In general the students who take admission in PG courses belong to poor educational background, therefore finding difficult in coping up with the contents of this course. Students loosen interest owing to poor laboratories infrastructure due to shortage of funds.

The deficiencies could be offset by proper financial support of lab infrastructure, which yields in the better understanding of theoretical subjects. The students are required to expose with the simulative programs using commercial software. It will enhance their skill in solving the realistic problems.

The growth of manufacturing sector in India is on rapid rise as compared with the other sector, which is due to cheaper available manpower and is expected to further rise by open economy. A number of multinationals have already invested in the country and the trend is encouraging due to stable economy.

Indian companies however facing a big challenge due to superior technology in manufacturing of neighboring country China and with the world. In order to compete globally, this sector needs reorientation which is capable of absorbing and use of new technology of the 21^{st} century.

In the era of globalization, an industry can only survive if it successfully reduces product development time, improve product quality, reduce prototyping cost and waste, and optimize handling cost. These requirements have forced to adopt and follow concurrent design technique.

An use of computer with the intention of integrating design and manufacturing (CAD/CAM) could be a possible solution to face global competition. The main objective of starting a new PG course on CAD/CAM is for catering the need of industry by providing the skilled manpower ,capable of absorbing and use future technology in integration with design and manufacturing.

The strength of the department for running the course is quite good. The faculty is well qualified having Ph.Ds in the area of design and production engineering with sufficient experience. The lab infrastructure is satisfactorily and faculty is involved in research. A more than 50 Laks Rs. Research project currently in the area of design and production is under operational.

The course is being planned from the academic year 2011-12, and the proposal is being submitted to AICTE, New Delhi for its approval. The course curriculum shall be currently same as designed by the University under affiliation, however it will be redesigned and developed accordingly in consultation with the experienced faculty in India and with the industrialist, after obtaining the academic autonomy. Although we have currently CAD lab with a number of licensed version software like Auto Desk, Inventor, PRO-E and Solid Works, still the lab is being further modernized with the inclusion of Software like CATIA, ANSYS etc. These software along with the quality books shall be purchased following college rules.

It is hoped that in time to come, the students employability vis-à-vis pay package will enhances and our students will feel more satisfied with the outcome of their study.

2.7 Attach a summary of Training Needs Analysis carried out. Also, provide Faculty Development Plan for the first 18 months for improving their teaching, subject area and research competence based on Training Needs Analysis (TNA) (see Annex-VI to PIP) in the following areas.

- Basic and advanced pedagogy
- Subject / domain knowledge enhancement
- Attendance in activities such as workshops, seminars
- Improvement in faculty qualifications
- Improving research capabilities

(1) **The Industry –Institute Partnership** department would be established by the institute to increase the placement rate of the students to handle consultancy assignments and established specialized training centers for the industry. Industry- Institute interaction would provide an impetus for the economic growth of the state. With the help of this project, it is planned to develop a strong industry-institute partnership department. The major activities under this department are envisaged as under:

Industry-Institute-partnership would provide effective solutions to the local industry and the institute would possess self reliant profit center on the basis of need based projects.

- Need based Executive Development Programs.
- Industry Institute Meets.
- Seminars/Workshops/Conferences and other Training & Development Activities.
- Data Centre for furthering interaction process.
- Maintenance, Coordination & Promotion of consultancy services, establishment of links, with departments, agencies etc.
- Maintain & distribute funds obtained from consultancy services for strengthening of the Department.
- Collaboration regarding industry study tour programs for students and faculty.
- Organize Industrial Training and Industrial visits for the students and faculty. Organize Industrial exhibitions to highlight research facilities and expertise available at BCET and other institutions.
- Training of industrial personnel in the institute, exchange of personnel between the industries and institute by way of involving industry personnel in delivering lectures on latest technological growth, evaluation of project work, development of curricula as per industry need and other academic work in the institution.
- Generate funds from industry /other agencies for maintenance, development of the Deptt.
- Starting of specialized courses of short duration in Engineering, Technology & Management areas.

(2) Training of Heads, Senior faculty members of the Departments/Institution.

Heads/Senior faculty members will participate in the short term training programs of the IIMs, IITs, Universities, EDII etc. forgetting hands on training with special emphasis on governance, exercise of autonomy, participative management, financial management, strategic planning etc.

- Provide focused workshops to promote best practices that model the use of technology as a tool for personal productivity and engaged, experiential learning.

- Organize, publicize, and help teach classes and promote initiatives that help teachers use technology.
- Work to provide staff development programs that demonstrate alternatives to learning through a formal class structure.
- Integrate technology staff development with other initiatives to improve student learning. A few hours of focused and committed time can provide huge benefits.
- Promote the use of technology in conversation: Engage teachers and administrators in conversations about curriculum; bring technology into the conversation.
- Promote peer monitoring**:** Experiences, as well as examples cited in research, suggest that learning from other staff members may be the best way for many teachers to learn.
- Use online staff development resources**:** This encourages the use of the Internet as a vehicle for steering staff development.

(3) **Information accessibility to different stake holders**

Though the website of the college (www.bcetgsp.ac.in) already existing, yet comprehensive data base regarding students information, planning, decision making and other useful information will be made available to parents/wards of the students, employees and general public.

(4) **Self Appraisal**

Self Appraisal workshops will be conducted at regular intervals with the participation of several stake holders e.g. students/parents, industry, employees, government regulatory authorities and society etc.

2.8 Provide an action plan for training technical and other staff in functional areas.

The institute is Familiar with needs and principles of effective staff development; media can actively participate in building staff development committees, sharing their knowledge with others. Staff development committees can:

- **Provide focused workshops** to promote best practices that model the use of technology as a tool for personal productivity and engaged, experiential learning.
- Organize, publicize, and help teach classes and promote initiatives that help teachers use technology.
- Work to provide staff development programs that demonstrate alternatives to learning through a formal class structure.
- Integrate technology staff development with other initiatives to improve student learning. A few hours of focused and committed time can provide huge benefits.
- **Promote the use of technology in conversation**: Engage teachers and administrators in conversations about curriculum; bring technology into the conversation.
- **Promote peer monitoring: E**xperiences, as well as examples cited in research, suggest that learning from other staff members may be the best way for many teachers to learn.
- **Use online staff development resources:** This encourages the use of the Internet as a vehicle for staff development.

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

Under this activity, block institute conducts regular seminars, panel discussions and symposiums. The institute is situated in economically and technically backward areas , to serve the need of the people. The institute has been working with different N.G.Os and Govt. agencies to impart technical education to the youth of the area to sharpen their technological skills to make them entrepreneur. An entrepreneur development cell will be established in future to serve the purpose.

* As this institute is situated in a backward and boarder area, there is a lot of scope.

Under this activity, the institute would conduct workshop, seminar and training programs for training of unemployed youth. Institute would conduct various short terms courses in different areas of technical field.

* An entrepreneurship development cell will be established for our students and community.

* A training centre for providing hands on practical training to the employees of the surrounding areas will be established.

2.10 Describe briefly the participation of departments/faculty in the IDP preparation.

The department of Mechanical Engg., a leading department of the college is in the process of providing quality education and research. Currently the department is having 06 faculty with Ph.D qualification, more than 150 Nos of publications in the various national and international journals and having more than 50 L RPS grant. The growth of the department is due to the efforts of each faculty and staff. The faculty in the department is fully involved in the IDP preparation.

The faculty members of the department of CSE & BT, involved in preparation of IDP are as follows:

1. Dr. R C Gangwar, Assoc. Prof. & Head,
2. Sh. S K Gupta, Assoc. Prof.
3. Sh. Guresh Pal Singh, Asstt. Prof.
4. Sh. Sanjeev Mahajan, Asstt. Prof.
5. Sh. Mohit Marwaha, Asstt. Prof.

The Department of Applied Sciences, being the highly qualified and most experienced faculty involved in the preparation of IDP and project proposal for the introduction of new PG programme (M. Tech. (Nanotechnology)) and the list is as under :

S. No.	Name of Faculty	Qualification	Subject	Field of Specilisation
	Dr. Dial Chand (Principal)	Ph. D.	Applied Physics	Electromagnetic Field Theory
	Dr. Rakesh Dogra	Ph. D.	Applied Physics	Hyperfine interactions
	Dr. Arvind Kumar	Ph. D.	Applied Physics	Nuclear Spectroscopy
	Dr. Rajeev Malhotra	Ph. D.	Applied Physics	Nuclear Reactions
	Dr. S.K. Srivastava	Ph. D.	Applied Mathematics	Stability of Differential Equations
	Dr. Anju Awasthi	Ph. D.	Applied Chemistry	Organic Chemistry

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

A Project Monitoring Unit (PMU) would be set up for the speedy and effective implementation of the plan.

These reports will be submitted from time to time and will be submitted later on.

(A) Project Implementation

Institution will be establishing their PMU for project implementation and internal monitoring. The PMU will typically be assisted by committees with direct responsibility for the following:

a) Implementation of academic excellence activities
b) Promoting research and consultancy—research and consultancy cell
c) Procurement of civil works
d) Procurement of goods (equipment, books & learning resources, furniture and vehicles)
e) Faculty and staff development
f) Networking—both formal and non-formal
g) Rendering services to the community and non-formal sector of the economy
h) Industry-institute interaction including services to the formal sector of the economy
i) Tribal development activities
j) Implementation of reforms
k) Ensuring and auditing quality of education, training and services
l) Facilitating and ensuring improvements in administrative and financial practices

Institutions will be constituting committees for the above functions and standard operating procedures will be prescribed .

(B) Project Monitoring

Each IPMU will internally:

a) Monitor implementation of institutional project activities
b) Conduct audit of quality of education, training and services
c) Conduct audit of administrative and managerial efficiency
d) Monitor implementation of institutional reforms
e) Monitor compliance with MOU conditions
f) Monitor implementation of TDP
g) Prepare quarterly reports on progress in project and reforms implementation, internal audits and compliance with conditions of MOU
h) Submit quarterly reports to their respective BOG and SPFU (in case of centrally funded institutions to BTE in DSHE)
i) Achieve targets set for Output Indicators

(C) Performance Audit

Every 6 months, the SPFUs will carry out independent audits of institutions in respect of:

a) Performance in institutional project implementation
b) Implementation of institutional reforms
c) Quality of education, training and services
d) Administrative and managerial efficiency

2.12 Provide an Institutional project budget in Table-29.

Table-29

Institutional Project Budget for Sub-Component 1.1

[Note: For details of permissible and non-permissible expenditures, please see Table-18 (for Government funded and aided institutions) and Table-19 (for private unaided institutions)]

(Rs. in Crore)

S. No	Activities	Project Life Allocation	Financial year				
			2010-11	2011-12	2012-13	2013-14	2014-15
1	Infrastructure improvements for teaching, training and learning through:						
	(i) Modernization and strengthening of laboratories	2.1849		1.3	0.58	0.1949	0.11
	(ii) Establishment of new laboratories for existing UG and PG programmes and for new PG programmes	1.7515		1.414	0.2605	0.077	
	(iii) Modernization of classrooms*	0.302		0.226	0.046	0.015	0.015
	(iv) Updation of Learning Resources	0.3192		0.1842	0.0675	0.045	0.0225
	(v) Procurement of furniture	0.3997		0.2347	0.095	0.035	0.035
	(vi) Establishment/Upgradation of Central and Departmental Computer Centers*	1.214		0.6855	0.2035	0.1625	0.1625
	(vii) Modernization/improvements of supporting departments*	0.35		0.145	0.105	0.05	0.05
	(viii) Modernization and strengthening of libraries and increasing access to knowledge resources	1.0554		0.3113	0.2742	0.2147	0.2552
	(ix) Refurbishment (Minor Civil Works)*	0.2575		0.113	0.089	0.03	0.0255
2	Providing Teaching and Research Assistantships to increase enrolment in existing and new PG programmes in Engineering disciplines	0.195		0.05	0.05	0.05	0.045
3	Enhancement of R&D and institutional consultancy activities*	0.2		0.0545	0.0545	0.0445	0.0465
4	Faculty and Staff Development (including faculty qualification upgradation, pedagogical training, and organising/participation of faculty in workshops, seminars and conferences) for improved competence based on TNA	0.3297		0.0932	0.0925	0.07	0.074
5	Enhanced Interaction with Industry	0.34		0.088	0.088	0.083	0.081
6	Institutional management capacity enhancement	0.25		0.1055	0.0555	0.0505	0.0385
7	Implementation of institutional reforms	0.085		0.025	0.024	0.024	0.012
8	Academic support for weak students under the aegis of Finishing School	0.15		0.0405	0.0405	0.0355	0.0335
9	Technical assistance for procurement and academic activities	0.075		0.02	0.019	0.019	0.017
10	Incremental Operating Cost	0.541		0.3355	0.0755	0.0755	0.0545
TOTAL		9.9999		5.425	2.2202	1.2761	1.0777

Total Cost of the Project : CHE+BT (1.4965 cr) + CSE (0.75 cr) + ECE (1.5 cr) + IT (0.75 cr) + ME (1.5 cr)
+ APSC (1.5655 cr) + Comp. centre (0.75 cr) + Lib. (0.9254 cr) + W.S (0.30 cr)
+ TPO cell (0.5 cr) + Medical care centre (0.10)
= 9.9999 crore

Table-29

Institutional Project Budget for Sub-Component 1.1

Department of Chemical Engineering & Bio-Technology

(Rs. in Crore)

S. No	Activities	Project Life	Financial year				
			2010-11	2011-12	2012-13	2013-14	2014-15
1	Infrastructure improvements for teaching, training and learning through:						
	(i) Modernization and strengthening of laboratories	0.53		.20	.15	.10	.08
	(ii) Establishment of new laboratories for existing UG and	0.257		.10	.08	.077	--
	(iii) Modernization of classrooms*	0.032		.016	.016		
	(iv) Updation of Learning Resources	0.09		.03	.02	.02	.02
	(v) Procurement of furniture	0.04		.01	.01	.01	.01
	(vi) Establishment/Upgradation of Central and	0.070		.035	.035	-	-
	(vii) Modernization/improvements of supporting departments*	--					
	(viii) Modernization and strengthening of libraries and increasing access to knowledge resources	---					
	(ix) Refurbishment (Minor Civil Works)*	0.0075		.002	.003	.001	.0015
2	Providing Teaching and Research Assistantships to increase enrolment in existing and new PG programmes in Engineering disciplines	0.04		.01	.01	.01	.01
3	Enhancement of R&D and institutional consultancy activities*	0.060		.015	.015	.015	.015
4	Faculty and Staff Development (including faculty qualification upgradation, pedagogical training, and organising/participation of faculty in workshops, seminars and conferences) for improved competence based on TNA	0.08		.02	.02	.02	.02
5	Enhanced Interaction with Industry	0.020		.005	.005	.005	.005
6	Institutional management capacity enhancement	0.10		.025	.025	.025	.025
7	Implementation of institutional reforms	0.03		.01	.01	.01	--
8	Academic support for weak students under the aegis of Finishing School	0.03		.01	.01	.005	.005
9	Technical assistance for procurement and academic activities	0.020		.005	.005	.005	.005
10	Incremental Operating Cost	0.09		.03	.02	.02	.02
TOTAL		1.4965		.523	.434	.323	.2165

Funds Required : Rs. 1.4965 Crores (For details please see Annexure – I)

Table-29

Institutional Project Budget for Sub-Component 1.1

Department of Computer Science & Engineering

(Rs. in Crore)

S. No	Activities	Project Life Allocation	Financial year				
			2010-11	2011-12	2012-13	2013-14	2014-15
1	Infrastructure improvements for teaching, training and learning through:						
	(i) Modernization and strengthening of laboratories	0.20	-	0.13	0.03	0.02	0.02
	(ii) Establishment of new laboratories for existing UG and	0.08	-	0.08	-	-	-
	(iii) Modernization of classrooms*	0.08	-	0.05	0.01	0.01	0.01
	(iv) Updation of Learning Resources	0.03	-	0.025	0.0025	0.0025	-
	(v) Procurement of furniture	0.05	-	0.035	0.005	0.005	0.005
	(vi) Establishment/Upgradation of Central and	-	-	-	-	-	-
	(vii) Modernization/improvements of supporting departments*	-	-	-	-	-	-
	(viii) Modernization and strengthening of libraries and increasing access to knowledge resources	0.01	-	0.0025	0.0025	0.0025	0.0025
	(ix) Refurbishment (Minor Civil Works)*	0.01	-	0.0025	0.0025	0.0025	0.0025
2	Providing Teaching and Research Assistantships to increase enrolment in existing and new PG programmes in Engineering disciplines	0.04	Nil	0.01	0.01	0.01	0.01
3	Enhancement of R&D and institutional consultancy activities*	0.03	Nil	0.01	0.01	0.005	0.005
4	Faculty and Staff Development (including faculty qualification upgradation, pedagogical training, and organising/participation of faculty in workshops, seminars and conferences) for improved competence based on TNA	0.06	-	0.02	0.02	0.0075	0.0125
5	Enhanced Interaction with Industry	0.01	-	0.0025	0.0025	0.0025	0.0025
6	Institutional management capacity enhancement	0.04	-	0.03	0.005	0.0025	0.0025
7	Implementation of institutional reforms	0.01	-	0.0025	0.0025	0.0025	0.0025
8	Academic support for weak students under the aegis of	0.04	-	0.01	0.01	0.01	0.01
9	Technical assistance for procurement and academic activities	0.01	-	0.0025	0.0025	0.0025	0.0025
10	Incremental Operating Cost	0.05	-	0.035	0.005	0.005	0.005
TOTAL		0.75		0.4475	0.12	0.09	0.0925

Funds Required : Rs. 0.75 Crores (For details please see Annexure – II)

Table-29

Institutional Project Budget for Sub-Component 1.1

Department of Electronics & Communication Engineering

(Rs. in Crore)

S. No	Activities	Project Life Allocation	Financial year				
			2010-11	2011-12	2012-13	2013-14	2014-15
1	Infrastructure improvements for teaching, training and learning through:						
	(i) Modernization and strengthening of laboratories	0.9556	-	0.60	0.30	0.0556	
	(ii) Establishment of new laboratories for existing UG and PG programmes and for new PG programmes	0.1605	-	0.08	0.0805	-	-
	(iii) Modernization of classrooms*	0.04	-	0.04	-	-	-
	(iv) Updation of Learning Resources	0.0592	-	0.0592	-	-	-
	(v) Procurement of furniture	0.0597	-	0.0597	-	-	-
	(vi) Establishment/Upgradation of Central and	-	-	-	-	-	-
	(vii) Modernization/improvements of supporting departments*	-	-	-	-	-	-
	(viii) Modernization and strengthening of libraries and increasing access to knowledge resources	-	-	-	-	-	-
	(ix) Refurbishment (Minor Civil Works)*	0.075	-	0.030	0.015	0.015	0.015
2	Providing Teaching and Research Assistantships to increase enrolment in existing and new PG programmes in Engineering disciplines	Nil	Nil	Nil	Nil	Nil	Nil
3	Enhancement of R&D and institutional consultancy activities*	0.02	-	0.005	0.005	0.005	0.005
4	Faculty and Staff Development (including faculty qualification upgradation, pedagogical training, and organising/participation of faculty in workshops, seminars and conferences) for improved competence based on TNA	0.02	-	0.005	0.005	0.005	0.005
5	Enhanced Interaction with Industry	0.02	-	0.005	0.005	0.005	0.005
6	Institutional management capacity enhancement	0.03	-	0.01	0.01	0.01	-
7	Implementation of institutional reforms	0.005	-	0.002	0.001	0.001	0.001
8	Academic support for weak students under the aegis of	0.01	-	0.0025	0.0025	0.0025	0.0025
9	Technical assistance for procurement and academic activities	0.005	-	0.002	0.001	0.001	0.001
10	Incremental Operating Cost	0.04	-	0.2	0.01	0.01	-
TOTAL		**1.5**		**0.9204**	**0.435**	**0.1101**	**0.0345** **0.03**

* Not applicable for private unaided institutions.

Funds Required : Rs. 1.5 Crores (For details please see Annexure – III)

Table-29

Institutional Project Budget for Sub-Component 1.1

Department of Information Technology

(Rs. in Crore)

S. No	Activities	Project Life Allocation	Financial year				
			2010-11	2011-12	2012-13	2013-14	2014-15
1	Infrastructure improvements for teaching, training and learning through:						
	(i) Modernization and strengthening of laboratories	0.2193	-	0.17	0.02	0.0193	0.01
	(ii) Establishment of new laboratories for existing UG and PG programmes and for new PG programmes	0.08	-	0.08	-	-	-
	(iii) Modernization of classrooms*	0.10	-	0.09	0.01	-	-
	(iv) Updation of Learning Resources	0.02	-	0.010	0.005	0.0025	0.0025
	(v) Procurement of furniture	0.05	-	0.03	0.01	0.005	0.005
	(vi) Establishment/Upgradation of Central and	-	-	-	-	-	-
	(vii) Modernization/improvements of supporting departments*	-	-	-	-	-	-
	(viii) Modernization and strengthening of libraries and increasing access to knowledge resources	0.01	-	0.0075	0.0025	-	-
	(ix) Refurbishment (Minor Civil Works)*	0.01	-	0.0025	0.0025	0.0025	0.0025
2	Providing Teaching and Research Assistantships to increase enrolment in existing and new PG programmes in Engineering disciplines	0.04	Nil	0.01	0.01	0.01	0.01
3	Enhancement of R&D and institutional consultancy activities*	0.03	Nil	0.01	0.01	0.005	0.005
4	Faculty and Staff Development (including faculty qualification upgradation, pedagogical training, and organising/participation of faculty in workshops, seminars and conferences) for improved competence based on TNA	0.0307	-	0.0107	0.01	0.005	0.005
5	Enhanced Interaction with Industry	0.01	-	0.0025	0.0025	0.0025	0.0025
6	Institutional management capacity enhancement	0.04	-	0.03	0.005	0.0025	0.0025
7	Implementation of institutional reforms	0.01	-	0.0025	0.0025	0.0025	0.0025
8	Academic support for weak students under the aegis of	0.04	-	0.01	0.01	0.01	0.01
9	Technical assistance for procurement and academic activities	0.01	-	0.0025	0.0025	0.0025	0.0025
10	Incremental Operating Cost	0.05	-	0.035	0.005	0.005	0.005
TOTAL		0.75		0.5032	0.1075	0.0743	0.065

Funds Required : Rs. 0.75 Crores (For details please see Annexure – IV)

Table-29

Institutional Project Budget for Sub-Component 1.1

Department of Mechanical Engineering

Rs. 1.5 Crore

Sr. No.	Activities	Project life allocation (Crore)	Financial year				
			2010-11	2011-12	2012-13	2013-14	2014-15
1.	Infrastructure improvements for teaching through						
	Modernization and strengthening of labs	0.28 *	-	0.20	0.08	-	-
	Establishment of new labs for existing UG and PG programs and for new PG programs	0.514 **	-	0.414	0.10	-	-
	Modernization of class rooms	0.05	-	0.03	0.01	0.005	0.005
	Updation of learning resources	0.12	-	0.06	0.04	0.02	-
	Procurement of furniture	0.03	-	0.02	0.01	-	-
	Establishment / upgradation of departmental computer centre	0.046	-	0.04	0.006	-	-
	Modernization and strengthening of libraries and increasing access to knowledge resources	0.05	-	0.015	0.015	0.010	0.010
	Refurbishment (Minor civil works)	0.015	-	0.005	0.005	0.005	-
2.	Providing teaching and research assistantships to increase enrolment in existing and new PG programs in Engg. Disciplines	0.075	-	0.02	0.02	0.02	0.015
3.	Enhancement of R&D and institutional consultancy activities	0.03		0.007	0.007	0.007	0.009
4.	Faculty and staff development	0.075		0.019	0.019	0.019	0.018
5.	Enhanced interaction with the industry	0.03		0.008	0.008	0.008	0.006
6.	Institutional management capacity enhancement	0.03		0.008	0.008	0.008	0.006
7.	Implementation of institutional reforms	0.03		0.008	0.008	0.008	0.006
8.	Academic support for weak students under the aegis of finishing school	0.03		0.008	0.008	0.008	0.006
9.	Technical assistance for procurement and academic activities	0.03		0.008	0.008	0.008	0.006
10.	Incremental operating cost	0.065		0.019	0.019	0.019	0.008
	Total	**1.5**		**0.89**	**0.362**	**0.142**	**0.096**

Funds Required : Rs. 1.5 Crores (For details please see Annexure – V)

Table-29

Institutional Project Budget for Sub-Component 1.1

Department of Applied Sciences

(Rs. in Crore)

S. No	Activities	Project Life Allocation	Financial year				
			2010-11	2011-12	2012-13	2013-14	2014-15
1	Infrastructure improvements for teaching, training and learning through:						
	(i) Modernization and strengthening of laboratories	-	-	-	-	-	-
	(ii) Establishment of new laboratories for existing UG and PG programmes and for **new PG programmes**	0.96	-	**0.66**	**0.30**	-	-
	(iii) Modernization of classrooms*	-	-	-	-	-	-
	(iv) Updation of Learning Resources	-	-	-	-	-	-
	(v) Procurement of furniture	0.10	-	**0.05**	**0.05**	-	-
	(vi) Establishment/Upgradation of Central and Departmental Computer Centers*	0.3155	-	**0.3155**	-	-	-
	(vii) Modernization/improvements of supporting departments*	-	-	-	-	-	-
	(viii) Modernization and strengthening of libraries and increasing access to knowledge resources	0.05	-	**0.03**	**0.02**	-	-
	(ix) Refurbishment (Minor Civil Works)*	0.11	-	**0.06**	**0.05**	-	-
2	Providing Teaching and Research Assistantships to increase enrolment in existing and new PG programmes in Engineering disciplines	-	-	-	-	-	-
3	Enhancement of R&D and institutional consultancy activities*	-	-	-	-	-	-
4	Faculty and Staff Development (including faculty qualification upgradation, pedagogical training, and organising/participation of faculty in workshops, seminars and conferences) for improved competence based on TNA	-	-	-	-	-	-
5	Enhanced Interaction with Industry	-	-	-	-	-	-
6	Institutional management capacity enhancement	-	-	-	-	-	-
7	Implementation of institutional reforms	-	-	-	-	-	-
8	Academic support for weak students under the aegis of Finishing School	-	-	-	-	-	-
9	Technical assistance for procurement and academic activities	-	-	-	-	-	-
10	Incremental Operating Cost	-	-	-	-	-	-
TOTAL		1.5255	-	**1.1455**	**0.42**	-	-

Funds Required : Rs. 1.5655 Crores (For details please see Annexure – VI)

Table 29

Institutional Project Budget for Sub-Component 1.1

Central Computer Centre

(Rs. in Crore)

S. No	Activities	Project Life Allocation	Financial year				
			2010-11	2011-12	2012-13	2013-14	2014-15
1	Infrastructure improvements for teaching, training and learning through:						
	(i) Modernization and strengthening of laboratories	-	-	-	-	-	-
	(ii) Establishment of new laboratories for existing UG and PG programmes and for **new PG programmes**	-	-	-	-	-	-
	(iii) Modernization of classrooms*	-	-	-	-	-	-
	(iv) Updation of Learning Resources	-	-	-	-	-	-
	(v) Procurement of furniture	0.01	-	0.01	-	-	-
	(vi) Establishment/Upgradation of Central and Departmental Computer Centers*	0.7225	-	0.28	0.1475	0.1475	0.1475
	(vii) Modernization/improvements of supporting departments*	-	-	-	-	-	-
	(viii) Modernization and strengthening of libraries and increasing access to knowledge resources	-	-	-	-	-	-
	(ix) Refurbishment (Minor Civil Works)*	0.01	-	0.005	0.005	-	-
2	Providing Teaching and Research Assistantships to increase enrolment in existing and new PG programmes in Engineering disciplines	-	-	-	-	-	-
3	Enhancement of R&D and institutional consultancy activities*	-	-	-	-	-	-
4	Faculty and Staff Development (including faculty qualification upgradation, pedagogical training, and organising/participation of faculty in workshops, seminars and conferences) for improved competence based on TNA	0.004	-	0.0010	0.0010	0.0010	0.0010
5	Enhanced Interaction with Industry	-	-	-	-	-	-
6	Institutional management capacity enhancement	-	-	-	-	-	-
7	Implementation of institutional reforms	-	-	-	-	-	-
8	Academic support for weak students under the aegis of Finishing School	-	-	-	-	-	-
9	Technical assistance for procurement and academic activities	-	-	-	-	-	-
10	Incremental Operating Cost	0.006	-	0.0015	0.0015	0.0015	0.0015
TOTAL		0.75		0.30	0.15	0.15	0.15

Funds Required : Rs. 0.75 Crores (For details please see Annexure – VII)

Table-29

Institutional Project Budget for Sub-Component 1.1

Central Library

(Rs. in Crore)

S. No	Activities	Project Life Allocation	Financial year				
			2010-11	2011-12	2012-13	2013-14	2014-15
1	Infrastructure improvements for teaching, training and learning through:						
	(i) Modernization and strengthening of laboratories	-	-	-	-	-	-
	(ii) Establishment of new laboratories for existing UG and PG programmes and for **new PG programmes**	-	-	-	-	-	-
	(iii) Modernization of classrooms*	-	-	-	-	-	-
	(iv) Updation of Learning Resources	-	-	-	-	-	-
	(v) Procurement of furniture	-	-				
	(vi) Establishment/Upgradation of Central and Departmental Computer Centers*	-	-				
	(vii) Modernization/improvements of supporting departments*	-	-				
	(viii) Modernization and strengthening of libraries and increasing access to knowledge resources	0.9254	-	**0.2563**	**0.2342**	**0.2022**	**0.2427**
	(ix) Refurbishment (Minor Civil Works)*	-	-				
2	Providing Teaching and Research Assistantships to increase enrolment in existing and new PG programmes in Engineering disciplines	-	-				
3	Enhancement of R&D and institutional consultancy activities*	-	-				
4	Faculty and Staff Development (including faculty qualification upgradation, pedagogical training, and organising/participation of faculty in workshops, seminars and conferences) for improved competence based on TNA	-	-				
5	Enhanced Interaction with Industry	-	-				
6	Institutional management capacity enhancement	-	-				
7	Implementation of institutional reforms	-	-				
8	Academic support for weak students under the aegis of Finishing School	-	-				
9	Technical assistance for procurement and academic activities	-	-				
10	Incremental Operating Cost	-	-				
TOTAL		0.9254	-	**0.2563**	**0.2342**	**0.2022**	**0.2427**

Funds Required : Rs. 0.9254 Crores (For details please see Annexure – VIII)

Table-29

Institutional Project Budget for Sub-Component 1.1

Central WORKSHOP

(Rs. in Crore)

S. No	Activities	Project Life Allocation	Financial year				
			2010-11	2011-12	2012-13	2013-14	2014-15
1	Infrastructure improvements for teaching, training and learning through:						
	(i) Modernization and strengthening of laboratories	-	-	-	-	-	-
	(ii) Establishment of new laboratories for existing UG and PG programmes and for **new PG programmes**	-	-	-	-	-	-
	(iii) Modernization of classrooms*	-	-	-	-	-	-
	(iv) Updation of Learning Resources	-	-	-	-	-	-
	(v) Procurement of furniture	-	-	-	-	-	-
	(vi) Establishment/Upgradation of Central and Departmental Computer Centers*	-	-	-	-	-	-
	(vii) Modernization/improvements of supporting departments*	0.250	-	0.065	0.085	0.050	0.050
	(viii) Modernization and strengthening of libraries and increasing access to knowledge resources	-		-	-	-	-
	(ix) Refurbishment (Minor Civil Works)*	-	-	-	-	-	-
2	Providing Teaching and Research Assistantships to increase enrolment in existing and new PG programmes in Engineering disciplines	-	-	-	-	-	-
3	Enhancement of R&D and institutional consultancy activities*	-	-	-	-	-	-
4	Faculty and Staff Development (including faculty qualification upgradation, pedagogical training, and organising/participation of faculty in workshops, seminars and conferences) for improved competence based on TNA	0.050	-	0.015	0.015	0.010	0.010
5	Enhanced Interaction with Industry	-	-	-	-	-	-
6	Institutional management capacity enhancement	-	-	-	-	-	-
7	Implementation of institutional reforms	-	-	-	-	-	-
8	Academic support for weak students under the aegis of Finishing School	-	-	-	-	-	-
9	Technical assistance for procurement and academic activities	-	-	-	-	-	-
10	Incremental Operating Cost	-	-	-	-	-	-
TOTAL		0.30		0.080	0.10	0.060	0.060

Funds Required : Rs. 0.30 Crores (For details please see Annexure – IX)

Table-29

Institutional Project Budget for Sub-Component 1.1

Training & Placement Cell

(Rs. in Crore)

S. No	Activities	Project Life	Financial year			
			2011-12	2012-13	2013-14	2014-15
1	Infrastructure improvements for teaching, training and learning through:		--	--	--	--
	(i) Modernization and strengthening of laboratories	--	--	--	--	--
	(ii) Establishment of new laboratories for existing UG and	--	--	--	--	--
	(iii) Modernization of classrooms*	--	--	--	--	--
	(iv) Updation of Learning Resources	--	--	--	--	--
	(v) Procurement of furniture	0.06		.015	.015	.015
	(vi) Establishment/Upgradation of Central and	0.06	--	.015	.015	.015
	(vii) Modernization/improvements of supporting departments*	--	--	--	--	--
	(viii) Modernization and strengthening of libraries and increasing access to knowledge resources	--	--	--	--	--
	(ix) Refurbishment (Minor Civil Works)*	0.02		.006	.006	.004	.004
2	Providing Teaching and Research Assistantships to increase enrolment in existing and new PG programmes in Engineering disciplines	--	--	--	--	--
3	Enhancement of R&D and institutional consultancy activities*	0.03		.0075	.0075	.0075	.0075
4	Faculty and Staff Development (including faculty qualification upgradation, pedagogical training, and organising/participation of faculty in workshops, seminars and conferences) for improved competence based on TNA	0.01		.0025	.0025	.0025	.0025
5	Enhanced Interaction with Industry	.25		.065	.065	.06	.06
6	Institutional management capacity enhancement	.01		.0025	.0025	.0025	.0025
7	Implementation of institutional reforms	--	--	--	--	--	--
8	Academic support for weak students under the aegis of	--	--	--	--	--	--
9	Technical assistance for procurement and academic activities	--	--	--	--	--	--
10	Incremental Operating Cost	.06	--	.015	.015	.015	.015
TOTAL		0.5		0.1285	0.1285	0.1215	0.1215

Funds Required : Rs. 0.50 Crores (For details please see Annexure – X)

Table-9

Institutional Project Budget for Sub-Component 1.1

[Note: For details of permissible and non-permissible expenditures, please see Table-18 (for Government funded and aided institutions) and Table-19 (for private unaided institutions)]

Medical Care Centre

(Rs. in Crore)

S. No	Activities	Project Life Allocation	Financial year				
			2010-11	2011-12	2012-13	2013-14	2014-15
1	Infrastructure improvements for teaching, training and learning through:						
	(i) Modernization and strengthening of laboratories	-	-	-	-	-	-
	(ii) Establishment of new laboratories for existing UG and	-	-	-	-	-	-
	(iii) Modernization of classrooms*	-	-	-	-	-	-
	(iv) Updation of Learning Resources	-	-	-	-	-	-
	(v) Procurement of furniture	-	-	-	-	-	-
	(vi) Establishment/Upgradation of Central and	-	-	-	-	-	-
	(vii) Modernization/improvements of supporting departments*	0.010	-	.080	.020	-	-
	(viii) Modernization and strengthening of libraries and increasing access to knowledge resources	-	-	-	-	-	-
	(ix) Refurbishment (Minor Civil Works)*	-	-	-	-	-	-
2	Providing Teaching and Research Assistantships to increase enrolment in existing and new PG programmes in Engineering disciplines	-	-	-	-	-	-
3	Enhancement of R&D and institutional consultancy activities*	-	-	-	-	-	-
4	Faculty and Staff Development (including faculty qualification upgradation, pedagogical training, and organising/participation of faculty in workshops, seminars and conferences) for improved competence based on TNA	-	-	-	-		-
5	Enhanced Interaction with Industry	-	-	-	-	-	-
6	Institutional management capacity enhancement	-	-	-	-	-	-
7	Implementation of institutional reforms	-	-	-	-	-	-
8	Academic support for weak students under the aegis of	-	-	-	-	-	-
9	Technical assistance for procurement and academic activities	-	-		-	-	-
10	Incremental Operating Cost	-	-	-	-	-	-
TOTAL		0.010	-	0.080	0.020	-	-

Funds Required : Rs. 0.10 Crores (For details please see Annexure – XI)

Table 30
Project Targets for Institutions under Sub-Component 1.1

Department of Chemical Engineering & Bio-Technology

S. No	Deliverables	Base-line	Targets to be achieved	
			At the end of 2 years of joining the Project	By project closing
1	Number of students registered for (a) Masters in Engineering programme (b) Doctoral programme in Engineering		20	40
2	Revenue from externally funded R&D projects and consultancies in total revenue (Rs. in lakh)		10	20
3	Number of publications in refereed journals (a) National (b) International		5 5	10 10
4	IRG as % of total annual recurring expenditure			
5	Number of co-authored publications in refereed journals (a) National (b) International		5 5	10 10
6	Student credentials (a) campus placement rate of • UG students • PG students (b) average salary of placement package for (Rs. in lakh) • UG students • PG students			
7	Number of collaborative programmes with Industry		2	4
8	Accreditation status (obtained and applied for)		Minimum 60% of UG + PG	100% of eligible UG + PG programmes
9	Vacancy position for faculty and staff		Vacancy reduced to 10% or less	Zero
10	Percentage of regular faculty having a Masters Degree or a Doctorate Degree in Engineering disciplines		Increase by 20% and 10% respectively over base line	Increase by 40% and 20% respectively over base line
11	Transit rate from 1st to 2nd year for the following: • All Students • SC and ST Students • OBC Students • Women Students		100%	100%
12	Autonomy status		Required to be obtained	
13	Enrolment of faculty with only Bachelor Degree for qualification upgradation		At least 50% at the parent institution or 25% at other institution	
14	Any other academic deliverables (maximum 3)			
(i)				
(ii)				
(iii)				

Table 30
Project Targets for Institutions under Sub-Component 1.1

Department of Computer Science & Engineering

S. No	Deliverables	Base-line	Targets to be achieved	
			At the end of 2 years of joining the Project	By project closing
1	Number of students registered for (a) Masters in Engineering programme (b) Doctoral programme in Engineering		25 02	50 04
2	Revenue from externally funded R&D projects and consultancies in total revenue (Rs. in lakh)		02	05
3	Number of publications in refereed journals (a) National (b) International		5 5	15 10
4	IRG as % of total annual recurring expenditure		1	2
5	Number of co-authored publications in refereed journals (a) National (b) International		5 5	10 10
6	Student credentials (a) campus placement rate of • UG students • PG students (b) average salary of placement package for (Rs. in lakh) • UG students • PG students		75 80	80 95
7	Number of collaborative programmes with Industry		2	5
8	Accreditation status (obtained and applied for)		Minimum 60% of UG + PG	100% of eligible UG + PG programmes
9	Vacancy position for faculty and staff		Vacancy reduced to 10% or less	Zero
10	Percentage of regular faculty having a Masters Degree or a Doctorate Degree in Engineering disciplines		Increase by 20% and 10% respectively over base line	Increase by 40% and 20% respectively over base line
11	Transit rate from 1st to 2nd year for the following: • All Students • SC and ST Students • OBC Students • Women Students		100%	100%
12	Autonomy status		Required to be obtained	
13	Enrolment of faculty with only Bachelor Degree for qualification upgradation		At least 50% at the parent institution or 25% at other institution	
14	Any other academic deliverables (maximum 3)			
(i)				
(ii)				
(iii)				

Table 30
Project Targets for Institutions under Sub-Component 1.1

Department of Electronics & Communication Engineering

S. No	Deliverables	Base-line	Targets to be achieved	
			At the end of 2 years of joining the Project	By project closing
1	Number of students registered for (a) Masters in Engineering programme (b) Doctoral programme in Engineering		18	18
2	Revenue from externally funded R&D projects and consultancies in total revenue (Rs. in lakh)		10	20
3	Number of publications in refereed journals (a) National (b) International		20 25	25 30
4	IRG as % of total annual recurring expenditure			
5	Number of co-authored publications in refereed journals (a) National (b) International		5 5	10 10
6	Student credentials (a) campus placement rate of • UG students • PG students (b) average salary of placement package for (Rs. in lakh) • UG students • PG students			
7	Number of collaborative programmes with Industry		2	4
8	Accreditation status (obtained and applied for)		Minimum 60% of UG + PG	100% of eligible UG + PG programmes
9	Vacancy position for faculty and staff		Vacancy reduced to 10%	Zero
10	Percentage of regular faculty having a Masters Degree or a Doctorate Degree in Engineering disciplines		Increase by 20% and 10% respectively over base line	Increase by 40% and 20% respectively over base line
11	Transit rate from 1st to 2nd year for the following: • All Students • SC and ST Students • OBC Students • Women Students		100%	100%
12	Autonomy status		Applying for	
13	Enrolment of faculty with only Bachelor Degree for qualification upgradation		01	
14	Any other academic deliverables (maximum 3)			
(i)				
(ii)				
(iii)				

Table 30
Project Targets for Institutions under Sub-Component 1.1

Department of Information Technology

S. No	Deliverables	Base-line	Targets to be achieved	
			At the end of 2 years of joining the Project	By project closing
1	Number of students registered for (a) Masters in Engineering programme (b) Doctoral programme in Engineering		25 01	50 02
2	Revenue from externally funded R&D projects and consultancies in total revenue (Rs. in lakh)		01	03
3	Number of publications in refereed journals (a) National (b) International		03 02	10 05
4	IRG as % of total annual recurring expenditure		01	02
5	Number of co-authored publications in refereed journals (a) National (b) International		02 03	05 05
6	Student credentials (a) campus placement rate of • UG students • PG students (b) average salary of placement package for (Rs. in lakh) • UG students • PG students		60 1.60 Lakhs 3.50 Lakhs	95 3.00 Lacs 5.00 Lacs
7	Number of collaborative programmes with Industry		01	02
8	Accreditation status (obtained and applied for)		Minimum 60% of UG + PG	100% of eligible UG + PG programmes
9	Vacancy position for faculty and staff		Vacancy reduced to 10% or less	Zero
10	Percentage of regular faculty having a Masters Degree or a Doctorate Degree in Engineering disciplines		Increased by 20% and 10% respectively over base line	Increased by 40% and 20% respectively over base line
11	Transit rate from 1st to 2nd year for the following: • All Students • SC and ST Students • OBC Students • Women Students		 80% 60% 80% 80%	 95% 85% 95% 95%
12	Autonomy status		Required to be obtained	
13	Enrolment of faculty with only Bachelor Degree for qualification upgradation		At least 50% at the parent institution or 25% at other institution	
14	Any other academic deliverables (maximum 3)			

Table 30
Project Targets for Institutions under Sub-Component 1.1

Department of Applied Sciences

S. No	Deliverables	Base-line	Targets to be achieved	
			At the end of 2 years of joining the Project	By project closing
1	Number of students registered for (a) Masters in Engineering programme (b) Doctoral programme in Engineering		18	36 04
2	Revenue from externally funded R&D projects and consultancies in total revenue (Rs. in lakh)		10	20
3	Number of publications in refereed journals (a) National (b) International		5 5	10 10
4	IRG as % of total annual recurring expenditure			
5	Number of co-authored publications in refereed journals (a) National (b) International		5 5	10 10
6	Student credentials (a) campus placement rate of • UG students • PG students (b) average salary of placement package for (Rs. in lakh) • UG students • PG students			
7	Number of collaborative programmes with Industry		-	2
8	Accreditation status (obtained and applied for)		Minimum 60% of UG + PG	100% of eligible UG + PG programmes
9	Vacancy position for faculty and staff		Vacancy reduced to 10%	Zero
10	Percentage of regular faculty having a Masters Degree or a Doctorate Degree in Engineering disciplines		Increase by 20% for Doctorate degree over base line	Increase by 40% for Doctorate degree over base line
11	Transit rate from 1st to 2nd year for the following: • All Students • SC and ST Students • OBC Students • Women Students		100%	100%
12	Autonomy status		Required to be obtained	
13	Enrolment of faculty with only Bachelor Degree for qualification upgradation			
14	Any other academic deliverables (maximum 3)			
(i)				
(ii)				
(iii)				

Table -30

Project targets for institutions under Sub-component 1.1

Department of Mechanical Engineering

S.no.	Deliverables	Base line	Targets to be achieved	
			At the end of 2 years of joining the project	By project closing
1.	No. of students registered for (a)Masters in Engg. Programme (b)Doctoral programe in Engg.	 18 Nil	Increased by 20% and 10% respectively over base line	Increased by 30% and 20% respectively over base line
2.	Revenue from externally funded R&D projects and consultancies in total revenue (Rs. In Lakhs)	1.16 L	Increased by 10% over base line	Increased by 20% over base line
3.	No. of publications in referred journals (a) National (b) International	 Nil 27	Increased by 10% over base line	Increased by 20% over base line
4.	IRG as % of total annual recurring expenditure	1.34%	Increased by 10% over base line	Increased by 20% over base line
5.	Number of co-authored publications in referred journal (a) National (b) International	 Nil 27	Increased by 10% over base line	Increased by 20% over base line
6.	Students credentials (a) campus placement rate of • UG students • PG students (b)average salary of placement package for (Rs. In Lakh) • UG students • PG students	 48% Nil 2.5 L	Increased by 10% and 10% respectively over base line	Increased by 20% and 20% respectively over base line
7.	Number of collaborative programs with the industry	Nil	Increased by 100% over base line	Increased by 200% over base line
8.	Accrediatation status (obtained and applied for)	100%	Minimum 60% of UG +PG	100% of eligible UG +PG programmes
9.	Vacancy position for faculty and staff		Vacancy reduced to 10% or less	Zero
10.	Percentage of regular faculty having a Master Degree or a Doctorate Degree in Engg. disciplines		Increased by 20% and 10% respectively over base line	Increased by 40% and 20% respectively over base line
11.	Transit rate from 1st to 2nd year for the following • All students • SC and ST students • OBC Students	 20% 0% 60%	Increased by 20% over base line	Increased by 40% over base line
12.	Autonomous status		Required to be obtained	
13.	Enrolment of faculty with only Bachelor degree for qualification upgradation		At least 50% at the parent institution	

Table -30

Project Targets[4] for Institutions under Sub-Component 1.1

Training & Placement Cell

S. No	Deliverables	Base-line	Targets to be achieved	
			At the end of 2 years of joining the Project	By project closing
1	Number of students registered for (a) Masters in Engineering programme (b) Doctoral programme in Engineering			
2	Revenue from externally funded R&D projects and consultancies in total revenue (Rs. in lakh)			
3	Number of publications in refereed journals (a) National (b) International			
4	IRG as % of total annual recurring expenditure			
5	Number of co-authored publications in refereed journals (a) National (b) International			
6	Student credentials (a) campus placement rate of • UG students • PG students (b) average salary of placement package for (Rs. in lakh) • UG students		a) UG-40 % PG-40% b)	a) UG-60% PG-65 % b)
7	Number of collaborative programmes		10	20
8	Accreditation status (obtained and applied for)		Minimum 60% of UG + PG	100% of eligible UG
9	Vacancy position for faculty and staff		Vacancy reduced to 10% or	Zero
10	Percentage of regular faculty having a Masters Degree or a Doctorate Degree in Engineering disciplines		Increased by 20% and 10% respectively over base line	Increased by 40% and 20% respectively
11	Transit rate from 1st to 2nd year for the following: • All Students • SC and ST Students			
12	Autonomy status		Required to be obtained	
13	Enrolment of faculty with only Bachelor Degree for qualification upgradation		At least 50% at the parent institution or 25% at other institution	

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

(A) CONTINUATION OF COMMITMENT TO EXCELLENCE

The institute will develop the the dynamic &flexible plans to cater the needs of society & industry along with the achievement of financial autonomy by monitoring and regulating policies ,procedures and strategies.

(B) ENSURING ADEQUATE FUND FLOW

Through various means including funding from the sponsoring government/Society/Trust and IRG schemes to sustain and to even enhance the good practices started under the Program.

(C) RISK INVOLVED

Describe briefly the main risks involved and the risk mitigation measures in the sustenance of activities promoted during the project in the format given below:

S No	Main Risk	***Risk Mitigation Measures`***
1	Commitment of funding Agency	Avoiding major policy shift by funding agency.
2	Operational Cost (Raw material cost, Repair & Maintenance cost, Stationery and Electricity)	By increasing the return from consultancies, distance learning training and development.
3	Obsolescence of the equipments(Upgradation & Replacement cost of these)	MORDROB schemes of AICTE and suitable depreciation for the tool, equipment, machinery and technology

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.

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

Table-31

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

Name of the institution with location: BEANT COLLEGE OF ENGINERING & TECHNOLOGY GURDASPUR, PUNJAB

Department : Chemical engineering & Bio-Technology

Package No.	Sl No.	Activities	Description of Works/ Goods	Estimated Cost	Method of Procurement	Design/ Investigation Completion/ Specification Finalization	Estimate Sanctioned	Preparation of Bid Document (Date)	Receipt of Bank's No Objection to Bidding	Bids		Contract Award (Date/	Date of Completion of Contract
										Invitation	Opening (Date		
1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	1	1(i)	Batch Sterilization System for Media	2.0	Tender	2months	4 months	3 months	1month	2months	1month	1month	4months
2			Air Sterilization System	2.0	Tender	2months	4 months	3 months	1month	2months	1month	1month	4months
3			Bio-Fuel Set-up	2.5	Tender	2months	4 months	3 months	1month	2months	1month	1month	4months
			General Microbiological and Bio chemical equipment	1.0	Tender	2months	4 months	3 months	1month	2months	1month	1month	4months
4			Refract ometer	1.0	Tender	2months	4 months	3 months	1month	2months	1month	1month	4months
5			Continuous Ambient air quality monitoring System	3.0	Tender	2months	4 months	3 months	1month	2months	1month	1month	4months

Table-31

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

Name of the institution with location: BEANT COLLEGE OF ENGINERING & TECHNOLOGY GURDASPUR PUNJAB

Department : Chemical engineering & Bio-Technology

Package No.	Sl No.	Activities	Description of Works/ Goods	Estimated Cost	Method of Procurement	Design/ Investigation Completion/ Specification Finalization	Estimate Sanctioned	Preparation of Bid Document (Date)	Receipt of Bank's No Objection to Bidding	Bids		Contract Award (Date/	Date of Completion of Contract
										Invitation	Opening (Date		
1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	1	1(i)	Hydrocarbon Analyser	1.0	Tender	2months	4 months	3 months	1month	2months	1month	1month	4months
2			Portable GC for VOC's in Air and Water	2.0	Tender	2months	4 months	3 months	1month	2months	1month	1month	4months
3			Respirable dust sampler	2.0	Tender	2months	4 months	3 months	1month	2months	1month	1month	4months
			Cox Analyser	1.0	Tender	2months	4 months	3 months	1month	2months	1month	1month	4months
			.Ambient Air Monitor (Particulate anions and Cations in	2.0	Tender	2months	4 months	3 months	1month	2months	1month	1month	4months
			Specific Gravity Meter	.50	Tender	2months	4 months	3 months	1month	2months	1month	1month	4months

Table-31
18-month Procurement Plan for Works and Goods* for Sub-Component 1.1

Name of the institution with location: BEANT COLLEGE OF ENGINERING & TECHNOLOGY GURDASPUR PUNJAB

Department : Chemical Engineering & Bio-Technology

Package No.	Sl No.	Activities	Description of Works/ Goods	Estimated Cost (Rs)	Method of Procurement	Design/ Investigation Completion/ Specification Finalization (Date)	Estimate Sanctioned (Date and	Preparation of Bid Document (Date)	Receipt of Bank's No Objection to Bidding	Bids		Contract Award (Date/	Date of Completion of Contract
										Invitation	Opening (Date		
1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	1	1(ii)	Bioreactor	5.50	Tender	2months	4 months	3 months	1month	2months	1month	1month	4months
2			Viscometer : LVDV-11 (Brookfield along with water bath Temp range 0^0 C to 150^0 C) Computer Based	5.20	Tender	2months	4 months	3 months	1month	2months	1month	1month	4months
3		1(iii)	Multi Media Room with Computer Projector (2 units)	1.6	Tender	2months	4 months	3 months	1month	2months	1month	1month	4months
4		1(iv)	Lap Top for Faculty (Latest configuration) 6 units	3.0	Tender	2months	4 months	3 months	1month	2months	1month	1month	4months

Table-31
18-month Procurement Plan for Works and Goods* for Sub-Component 1.1

Name of the institution with location: BEANT COLLEGE OF ENGINERING & TECHNOLOGY GURDASPUR PUNJAB

Department : Chemical Engineering & Bio-Technology

Package No.	Sl No.	Activities	Description of Works/ Goods	Estimated Cost (Rs	Method of	Design/ Investigation Completion/ Specification Finalization	Estimate Sanctioned	Preparation of Bid Document (Date)	Receipt of Bank's No Objection to Bidding	Bids		Contract Award (Date/	Date of Completion of Contract
										Invitation	Opening (Date		
1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	1	1(v)	Office Table Chairs, Visting Chairs	1.00	Tender	2months	4 months	3 months	1month	2months	1month	1month	4months
2		1(vi)	Computer (PC), Table. Chairs, Laser printer Scanner,	3.50	Tender	2months	4 months	3 months	1month	2months	1month	1month	4months
3		1(ix)	White Wash & Minor repair	.25	Quotation	2 Months	1 Month	--	--	2months	-	1month	1month

Table 31

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

Name of the institution with location: Beant College of Engineering and Technology, Gurdaspur

Department : COMPUTER SCIENCE & ENGINEERING

Package No.	S No.	Activities	Description of Works/ Goods	Estimated Cost (Rs)	Method of Procurement	Design/ Investigation Completion/ Specification Finalization (Date)	Estimate Sanctioned (Date and Value)	Preparation of Bid Document (Date)	Receipt of Bank's NoObjection 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	1	New Equipment	Latest configuration Computer Systems Multimedia projector UPS 800 VA Electronic White board Laser Printer All-in-one Laser Printer LCD Projector with computer systems Audio System_ with Collar MIC and speakers Electronic White board Laptop	35000 * 40 = 14 lacs 50000*1=0.50 lac 3500.00*40=1.4lacs 95000.00*3=2.85lacs 65000.00*1=0.65lacs 12000.00*5=0.60lacs 137000*3=4.10Lacs 15000*3=0.45Lacs 98333*3=2.95Lacs 50000*17=8.5Lacs **Total: 36 Lacs**	tender								

2		Furniture	Book Racks Computer Tables Cushioned Chairs	10000*10=1.00Lacs 5000 * 34= 1.70 Lacs 2000* 55= 1.10 Lacs **Total: 3.8 Lacs**	quotations								
3		Books	Computer Books	500 * 200 = 1.00 Lacs ***Total: 1.00 Lacs***	Tender								
4		Software	Rational Rose Software	200000 * 1 = 2.00 Lacs **Total: 2.00 Lacs**	Proprietery item								

* Goods cover Equipment, Furniture and Books and Learning Resources

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

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

Table 31

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

Name of the institution with location: Beant College of Engineering and Technology, Gurdaspur

Department : INFORMATION TECHNOLOGY

Package No.	S No.	Activities	Description of Works/ Goods	Estimated Cost (Rs)	Method of Procurement	Design/ Investigation Completion/ Specification Finalization (Date)	Estimate Sanctioned (Date and Value)	Preparation of Bid Document (Date)	Receipt of Bank's NoObjection 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	1	New Equipment	Latest configuration Computer Systems Multimedia projector with computer system UPS 800 VA Electronic White board Multimedia Digital Podium Laptop	35000 *28 = 9.8 Lacs 100000*1 = 1.00 Lac 3500.00*28 =0.98Lacs 100000 * 2 =2.0 Lacs 900000*1=9.00 Lacs 50000*15=7.5Lacs **Total: 30.28 Lacs**	tender								

2		Furniture	Book Racks Computer Tables Cushioned Chairs	10000*10=1.00Lacs 5000 * 34= 1.70 Lacs 2000* 55= 1.10 Lacs **Total: 3.8 Lacs**	quotations								
3		Books	Computer Books	500 * 200 = 1.00 Lacs ***Total: 1.00 Lacs***	Tender								
4		Sofware	Network Simulator Linux Operating System	915000 * 1 = 9.15 Lacs 200000 * 1 = 2.00 Lacs **Total: 11.15 Lacs**	Proprietery item								

* Goods cover Equipment, Furniture and Books and Learning Resources

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

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

Table -31

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

Name of the institution with location: Beant College of Engineering and Technology, Gurdaspur

Department : Electronics & Communication Engineering

Package No.	S.No.	Activities	Description of Works/Goods	Estimated Cost (Rs)	Method of Procurement	Design, Investigation, Completion/ Specification Finalization (Date)	Sanctioned (Date and Value)	Preparation of Bid Document (Date)	Receipt of Bank's No Objection to Bidding Document (Date)	Bids		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	1.(i)	Lab View Software and Hardware for Instrumentation Lab	5x01=5 Lacs	Tender/Proprietary item	2months	4 months	3 months	1month	2 months	1month	1month	4months
	2	1.(i)	Computer with Latest Configuration for Instrumentation Lab	0.35x2=0.70 Lac	Tender / DGS&D Rates	2months	4 months	3 months	1month	2 months	1month	1month	4months
	3	1.(i)	UPS 800 VA for Instrumentation Lab	0.035x2=0.07 Lacs	Quotation	2 Months	1 Month	--	--	2 months	-	1month	1month
	4	1.(i)	Experimental Kits for Instrumentation Lab	0.5x20=1 Lac	Quotation	2 Months	1 Month	--	--	2 months	-	1month	1month

	5	**1.(i)**	Experimental Kits and Equipments for Electrical Lab	0.5x20=1 Lac	**Quotation**	2 Months	1 Month	--	--	2 months	-	1month	1month
	6	**1.(i)**	ABAQUS Software Latest Version for Electrical Lab	7x1=7 Lac	**Tender/Proprietary item**	2months	4 months	3 months	1month	2 months	1month	1month	4months
	7	**1.(i)**	Computer with Latest Configuration for Electrical Lab	0.35x2=0.70 Lac	**Tender / DGS&D Rates**	2months	4 months	3 months	1month	2 months	1month	1month	4months
	8	**1.(i)**	UPS 800 VA for Electrical Lab	0.035x2=0.07 Lacs	**Quotation**	2 Months	1 Month	--	--	2 months	-	1month	1month
	9	**1.(i)**	Wattmeter for Electrical Lab	0.1x5=0.5 Lacs	**Quotation**	2 Months	1 Month	--	--	2 months	-	1month	1month
	10	**1.(i)**	Power Factor Meter for Electrical Lab	0.1x2= 0.2 Lacs	**Quotation**	2 Months	1 Month	--	--	2 months	-	1month	1month
	11	**1.(i)**	Computer with Latest Configuration for VLSI Lab	0.35x5=1.75 Lac	**Tender / DGS&D Rates**	2months	4 months	3 months	1month	2 months	1month	1month	4 months
	12	**1.(i)**	UPS 800 VA for VLSI Lab	0.175 Lacs	**Quotation**	2 Months	1 Month	--	--	2 months	-	1month	1month

	13	1.(i)	Networking Components+ Installation for VLSI Lab	1x1=1 Lac	**Tender**	2months	4 months	3 months	1month	2 months	1month	1month	4 months
	14	1.(i)	Wireless network nodes	0.01x15=0.15 Lac	**Quotation**	2 Months	1 Month	--	--	2 months	-	1month	1month
	15	1.(i)	Altera FPGA /CPLD kits/ Target Boards + accessories for VLSI Lab	0.25x20=5 Lacs	**Tender/Proprietary items**	2months	4 months	3 months	1month	2 months	1month	1month	4 months
	16	1.(i)	Xilinx FPGA/CPLD kits/Target boards + accessories for VLSI Lab	0.25x20=5 Lacs	**Tender/Proprietary items**	2months	4 months	3 months	1month	2months	1month	1month	4months
	17	1.(i)	Universal FPGA/CPLD kits/ Target Boards+ accessories for VLSI Lab	0.3x10=3 Lacs	**Tender/Proprietary items**	2months	4 months	3 months	1month	2months	1month	1month	4months
	18	1.(i)	VLSI Design , analysis and synthesis, design verification, Place & Routing, Optimization (Complete package) for VLSI Lab	9x1=9 Lacs	**Tender/Proprietary items**	2months	4 months	3 months	1month	2months	1month	1month	4months
	19	1.(i)	Computer Latest Configuration for Microprocessor and Microcontroller Lab	0.35x10=3.5 Lacs	**Tender / DGS&D Rates**	2months	4 months	3 months	1month	2months	1month	1month	4months

	20	**1.(i)**	UPS 800 VA for Microprocessor and Microcontroller Lab	0.035x10 =0.35 Lacs	**Quotation**	2 Months	1 Month	--	--	2months	-	1month	1month
	21	**1.(i)**	In Circuit Emulator 8085/86/51 for Microprocessor and Microcontroller Lab	1x1=1 Lacs	**Tender**	2months	4 months	3 months	1month	2months	1month	1month	4months
	22	**1.(i)**	Digital IC Tester for Microprocessor and Microcontroller Lab	05.x1=0.5 Lacs	**Quotation**	2 Months	1 Month	--	--	2months	-	1month	1month
	23	**1.(i)**	Keil Software (Assembler, Simulator, C-Cross Compilers , Download to target Boards IDE for 8051) for Microprocessor and Microcontroller Lab	2x1=2 Lacs	**Tender/Proprietary items**	2months	4 months	3 months	1month	2months	1month	1month	4months
	24	**1.(i)**	Protues Software for Simulation and PCB Designing for Microprocessor and Microcontroller Lab	5x1=5 Lacs	**Tender / Proprietary Item**	2months	4 months	3 months	1month	2months	1month	1month	4months
	25	**1.(i)**	8086 experimental kits for Microprocessor and Microcontroller Lab	0.05x10=0.5 Lacs	**Quotation**	2 Months	1 Month	--	--	2months	-	1month	1month
	26	**1.(i)**	8085 Experimental kits for Microprocessor and Microcontroller Lab	0.5x10=0.5 Lacs	**Quotation**	2 Months	1 Month	--	--	2months	-	1month	1month

	27	1.(i)	8051 Experimental Kits for Microprocessor and Microcontroller Lab	0.5x10=0.5 Lacs	**Quotation**	2 Months	1 Month	--	--	2months	-	1month	1month
	28	1.(i)	OrCAD latest Version, multiuser for PCB Lab	5x1=5.0 Lacs	**Tender / Proprietary Item**	2months	4 months	3 months	1month	2months	1month	1month	4months
	29	1.(i)	PCB Soldering Workstation for PCB Lab	0.5x2=1.0 Lacs	**Tender**	2months	4 months	3 months	1month	2months	1month	1month	4months
	30	1.(i)	PCB Film maker for PCB Lab	0.02x1=0.2 Lacs	**Quotation**	2 Months	1 Month	--	--	2months	-	1month	1month
	31	1.(i)	PCB Curing machine for PCB Lab	0.20x1=0.2 Lacs	**Quotation**	2 Months	1 Month	--	--	2months	-	1month	1month
	32	1.(i)	Dip coating machine for PCB Lab	0.25x1=0.25 Lacs	**Quotation**	2 Months	1 Month	--	--	2months	-	1month	1month
	33	1.(i)	DOUBLE SIDED U.V. Exposure for PCB Lab	0.4x1=0.4 Lacs	**Quotation**	2 Months	1 Month	--	--	2months	-	1month	1month
	34	1.(i)	Etching Machine for PCB Lab	0.3x1=0.3 Lacs	**Quotation**	2 Months	1 Month	--	--	2months	-	1month	1month
	35	1.(i)	PCB Drilling Machine for PCB Lab	0.2x1=0.2 Lacs	**Quotation**	2 Months	1 Month	--	--	2months	-	1month	1month
	36	1.(i)	PCB Shearing Machine for	0.2x1=0.2 Lacs	**Quotation**	2	1	--	--	2mo	-	1month	1mont

			PCB Lab			Months	Month			nths			h
	37	1.(i)	Roller Tinning Machine for PCB Lab	04x1=0.4 Lacs	**Quotation**	2 Months	1 Month	--	--	2months	-	1month	1month
	38	1.(i)	Chemicals for PCB for PCB Lab	0.35x1=0.35 Lacs	**Quotation**	2 Months	1 Month	--	--	2months	-	1month	1month
	39	1.(i)	Dry Film laminator for PCB Lab	0.5x1=0.5 Lacs	**Quotation**	2 Months	1 Month	--	--	2months	-	1month	1month
	40	1.(i)	Thru Hole plating System for PCB Lab	0.5 Lacs	**Quotation**	2 Months	1 Month	--	--	2months	-	1month	1month
	41	1.(i)	Commsim Software for Communication Lab	4x1=4 Lacs	**Tender / Proprietary Item**	2months	4 months	3 months	1month	2months	1month	1month	4months
	42	1.(i)	Qualnet Software for Communication Lab	6.5x1=6.5 Lacs	**Tender / Proprietary Item**	2months	4 months	3 months	1month	2months	1month	1month	4months
	43	1.(i)	Function Generator	0.15x4=0.6 Lacs	**Tender**	2months	4 months	3 months	1month	2months	1month	1month	4months
	44	1.(i)	Computer Latest Configuration for Communication Lab	0.35x5=1.75 Lacs	**Tender / DGS&D rates**	2months	4 months	3 months	1month	2months	1month	1month	4months
	45	1.(i)	UPS 800 VA for Communication Lab	0.035x5=0.175 Lacs	**Quotation**	2 Months	1 Month	--	--	2months	-	1month	1month

	46	1.(i)	Experimental Kits for Communication Lab	0.5x20=1.0 Lac	**Quotation**	2 Months	1 Month	--	--	2months	-	1month	1month
	47	1.(i)	Scanner for Communication Lab	0.5x2=0.1 Lacs	**Quotation**	2 Months	1 Month	--	--	2months	-	1month	1month
	48	1.(i)	Computer Latest Configuration for Computer Lab	0.35x20=7 Lacs	**Tender / DGS&D rates**	2months	4 months	3 months	1month	2months	1month	1month	4months
	49	1.(i)	UPS 800 VA for Computer Lab	0.35x20=0.7 Lacs	**Tender/DGS&D rates**	2months	4 months	3 months	1month	2months	1month	1month	4months
	50	1.(i)	External Hard Disk for Computer Lab	0.035x2=0.07 Lacs	**Quotation**	2 Months	1 Month	--	--	2months	-	1month	1month
	51	1.(i)	Networking for Computer Lab	2x1=2 Lacs	**Tender**	2months	4 months	3 months	1month	2months	1month	1month	4months
	52	1.(i)	Experimental Kits Analog Ec. Lab	0.05x20=1.00 Lac	**Quotation**	2 Months	1 Month	--	--	2months	-	1month	1month
	53	1.(i)	Experimental Kits Digital Ec. Lab	0.05x20=1.00 Lac	**Quotation**	2 Months	1 Month	--	--	2months	-	1month	1month
	54	1.(i)	Experimental Kits Linear Control System Lab	0.10x20=2.00 Lacs	**Quotation**	2 Months	1 Month	--	--	2months	-	1month	1month
	55	1.(i)	Experimental Kits Ec. Devices and Ckt Lab	0.05x20=1.00 Lac	**Quotation**	2 Months	1 Month	--	--	2months	-	1month	1month
	56	1.(i)	Microwave Bench	1x2=2.00 Lacs	**Tender**	2months	4 month	3	1month	2mo	1mo	1month	4mont

			Microwave				s	months		nths	nth		hs
	57	1.(iii)	LCD Projector	1x2=2 Lacs	**Tender**	2months	4 months	3 months	1month	2months	1month	1month	4months
	58	1.(iii)	Audio System with Collar MIC and speakers	0.15x2=0.30 Lac	**Quotation**	2 Months	1 Month	--	--	2months	-	1month	1month
	59	1.(iii)	Curtains	0.50 Lacs	**Quotation**	2 Months	1 Month	--	--	2months	-	1month	1month
	60	1.(iii)	White/Green Boards	0.12x10=1.2 Lacs	**Quotation/Tender**	2months	4 months	3 months	1month	2months	1month	1month	4months
	61	1.(iv)	Video Lecture/CD/DVDs Series of Engg. Subjects	2 Lacs	**Quotation/Tender**	2months	4 months	3 months	1month	2months	1month	1month	4months
	62	1.(iv)	Laptop (For Faculty) (10 Nos.)	3.5 Lacs	**Tender/DGS&D Rate**	2months	4 months	3 months	1month	2months	1month	1month	4months
	63	1.(iv)	Scanner (05 Nos.)	0.04x05=0.02 Lacs	**Quotation/DGS&D rates**	2 Months	1 Month	--	--	2months	-	1month	1month
	64	1.(iv)	White Board (10)	0.4 Lacs	**Quotation/DGS&D Rates**	2 Months	1 Month	--	--	2months	-	1month	1month
	65	1.(v)	Revolving Chair (01)	0.05 x 01=0.05 Lacs	**Quotation**	2 Months	1 Month	--	--	2months	-	1month	1month
	66	1.(v)	Office Chairs	0.04 x 10 =0.40 Lacs	**Quotation**	2	1	--	--	2mo	-	1month	1mont

						Months	Month			nths			h
	67	1.(v)	Office Table 6'x4'	0.15x01=0.15 Lacs	**Quotation**	2 Months	1 Month	--	--	2months	-	1month	1month
	68	1.(v)	Book Racks	0.1x10=1 Lacs	**Quotation/Tender**	2 Months	1 Month	--	--	2months	-	1month	1month
	69	1.(v)	Reading Chairs	0.04x10=0.40 Lacs	**Quotation**	2 Months	1 Month	--	--	2months	-	1month	1month
	70	1.(v)	Reading Tables	0.05x02=0.10 Lacs	**Quotation**	2 Months	1 Month	--	--	2months	-	1month	1month
	71	1.(v)	Almirah	0.05x11=0.55 Lac	**Quotation/Tender**	2 Months	1 Month	--	--	2months	-	1month	1month
	72	1.(v)	Computer Tables	0.05x44=2.2 Lacs	**Tender**	2months	4 months	3 months	1month	2months	1month	1month	4months
	73	1.(v)	Cushioned Chairs	0.02x44=0.88 Lac	**Tender**	2months	4 months	3 months	1month	2months	1month	1month	4months
	74	1.(v)	Stool	0.008x30=0.24 Lacs	**Quotation**	2 Months	1 Month	--	--	2months	-	1month	1month
	75	1(ii)	Estd of New Lab	8 Lacs	**Tender / DGS&D Rates**	2months	4 months	3 months	1month	2 months	1month	1month	4months

Table-31

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

Name of the institution with location: BEANT COLLEGE OF ENGINERING & TECHNOLOGY GURDASPUR PUNJAB

Department : Mechanical Engineering

Package No.	Sl No.	Activities	Description of Works/ Goods	Estimated Cost	Method of Procurement	Design/ Investigation Completion/ Specification Finalization	Estimate Sanctioned	Preparation of Bid Document (Date)	Receipt of Bank's No Objection to Bidding	Bids		Contract Award (Date/	Date of Completion of Contract
										Invitation (D	Opening (Date		
1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	1	1(i)	Software for upgradation of Mitutoya make surface roughness	4.5 L	Tender	2months	4 months	3 months	1month	2months	1month	1month	4months
2			CATIA V6 Design S/W	9.0 L	Tender	2months	4 months	3 months	1month	2months	1month	1month	4months
3			Data Logger (32 channels)	2.0 L	Tender	2months	4 months	3 months	1month	2months	1month	1month	4months
			Digital Micro-manometer	2.0L	Tender	2months	4 months	3 months	1month	2months	1month	1month	4months
4			Thermocouple Caliberator	2.0 L	Tender	2months	4 months	3 months	1month	2months	1month	1month	4months
5			Cryogenic Treatment Processor	8.5 L	Tender	2months	4 months	3 months	1month	2months	1month	1month	4months

Table-31

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

Name of the institution with location: BEANT COLLEGE OF ENGINERING & TECHNOLOGY GURDASPUR PUNJAB

Department : Mechanical Engineering

Package No.	Sl	Activities	Description of Works/ Goods	Estimated Cost (Rs	Method of Procurement	Design/ Investigation Completion/ Specification Finalization	Estimate Sanctioned	Preparation of Bid Document (Date)	Receipt of Bank's No Objection to Bidding	Bids		Contract Award (Date/	Date of Completion of Contract
										Invitation	Opening (Date		
1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	1	1(ii)	UMT Comprehensive material testing for mechanical	45.0 L	Tender	2months	4 months	3 months	1month	2months	1month	1month	4months
2			FLUENT S/W	6.5 L	Tender	2months	4 months	3 months	1month	2months	1month	1month	4months

Table-31

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

Name of the institution with location: BEANT COLLEGE OF ENGINERING & TECHNOLOGY GURDASPUR PUNJAB

Department : Mechanical Engineering

Package No.	Sl No.	Activities	Description of Works/ Goods	Estimated Cost	Method of Procurement	Design/ Investigation Completion/ Specification Finalization	Estimate Sanctioned	Preparation of Bid Document (Date)	Receipt of Bank's No Objection to Bidding	Bids		Contract Award (Date/	Date of Completion of Contract
										Invitation	Opening (Date		
1	2	3	4	5	6	7	8	9	10	11	12	13	14
3		1(iii)	LCD Projector with computer system	3.0 L	Tender	2months	4 months	3 months	1month	2months	1month	1month	4months
4		1(iv)	Lap Top for Faculty (Latest configuration	10.0 L	Tender	2months	4 months	3 months	1month	2months	1month	1month	4months
			Laser Printer and white boards	2 L	tender	2months	4 months	3 months	1month	2months	1month	1month	4months
		1 (v)	Book Racks, Reading chairs, almirah,	3 L	tender	2months	4 months	3 months	1month	2months	1month	1month	4months

Table-31

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

Name of the institution with location: BEANT COLLEGE OF ENGINERING & TECHNOLOGY GURDASPUR PUNJAB

Department : Mechanical Engineering

Package No.	Sl No.	Activities	Description of Works/ Goods	Estimated Cost (Rs	Method of	Design/ Investigation Completion/ Specification Finalization	Estimate Sanctioned	Preparation of Bid Document (Date)	Receipt of Bank's No Objection to Bidding	Bids		Contract Award (Date/	Date of Completion of Contract
										Invitation	Opening (Date		
1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	1	1(v)	Text book etc	5 L	Direct	2months	4 months	3 months	1month	2months	1month	1month	4months
2		1(vi)	Desk Top	4L	Tender	2months	4 months	3 months	1month	2months	1month	1month	4months
		1 (vi)	Computer Furniture	0.6 L	Tender								
3		1(ix)	Refurbishment		Quotation	2 Months	1 Month	--	--	2months	-	1month	1month

Table -31

18-month Proceurement Plan for Works and Goods for Sub-Component 1.1

Name of the institution with location: BEANT COLLEGE OF ENGINERING & TECHNOLOGY GURDASPUR PUNJAB

Department : Central Computer Centre

Package No.	S.No.	Activities	Description of Works/Goods	Estimated Cost (Rs)	Method of Procurement	Design/ Investigation/ Completion/ Specification Finalization (Date)	Estimate Sanctioned (Date and	Preparation of Bid Document (Date)	Receipt of Bank's No Objection to Bidding Document (Date)	Bids		Contract Award	Date of Completion of Contract
										Invitation	Opening		
1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	1	**New Equipment & Furniture**	Latest configuration Computers (20) UPS (3 KVA) (02) Laser Printers (02) Scanners (01) Computer Tables (20) Computer Chairs (20)	45000 x 20 = 9.00 40000 x2 = 0.80 12000 x1 = 0.12 8000 x 1 = 0.08 3000 x 20 = 0.60 2000 x 20 = 0.40 Total = 11.00 Lacs	**Tender**	2months	4 months	3 months	1month	2 months	1month	1month	4months
			Wi-fi	13.00 lacs	**tender**								
2	2	**Software**	Adobe CS Master Collection AntiVirus Software	2.0 Lacs 3.0 lacs	**Properiety item** **tender**								

Table-31

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

Name of the institution with location: BEANT COLLEGE OF ENGINEERING & TECHNOLOGY, GURDASPUR

DEPARTMENT : Central workshop

Package No.	Sl No.	Activities	Description of Works/ Goods	Estimated Cost (Rs)	Method of Procurement	Design/ Investigation Completion/ Specification Finalization (Date)	Estimate Sanctioned (Date and Value)	Preparation of Bid Document (Date)	Receipt of Bank's No Objection to Bidding Document (Date)**	Bids		Contract Award (Date/ Value)	Date of Completion of Contract
										Invitation (Date)	Opening (Date)		
1	2	3	4	5	6	7	8	9	10	11	12	13	14
1		1 (vii)	Mechanical Power Press capacity 10 Ton	1.00 lac	Tender	2months	4 months	3 months	1month	Tender	2months	4 months	3 months
2		1 (vii)	Grooving Machine	0.35 lacs	**Quotation**	2 Months	1 Month	--	--	2months	-	1month	1month
3		1 (vii)	Jig Saw	0.12 lacs	**Quotation**	2 Months	1 Month	--	--	2months	-	1month	1month
4		1 (vii)	Wood Carving tool Kit	0.08 lacs	**Quotation**	2 Months	1 Month	--	--	2months	-	1month	1month
5		1 (vii)	CNC Drilling and tapping Machine	3.45 lacs	Tender	2months	4 months	3 months	1month	Tender	2months	4 months	3 months
6		1 (vii)	Overhead projector	1.50 lacs	Tender	2months	4 months	3 months	1month	Tender	2months	4 months	3 months

Table-31

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

Name of the institution with location: BEANT COLLEGE OF ENGINERING & TECHNOLOGY GURDASPUR PUNJAB

Department : Training & Placement Cell

Package No.	Sl No.	Activities	Description of Works/ Goods	Estimated Cost	Method of	Design/ Investigation Completion/ Specification Finalization	Estimate Sanctioned	Preparation of Bid Document (Date)	Receipt of Bank's No Objection to Bidding	Bids		Contract Award	Date of Completion of Contract
										Invitation (Date	Opening (Date		
1	2	3	4	5	6	7	8	9	10	11	12	1	14
1	1	1(i)	LCD Projector(1) Laptop(1) Scanner(1)	1.5	Tender	2months	4 months	3 months	1month	2months	1month	1month	4months
2		1(ii)	Sofa Set(7 seater), Centre table, Office Chair, office Visiting Chair(6) White Board Almirah Cutains	1.5	Tender	2months	4 months	3 months	1month	2months	1month	1month	4months

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

Academic Information :

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

S. No.	Title of Programmes	Level (UG, PG, Ph.D.)	Duration (Years)	Year of Starting	AICTE sanctioned annual intake	Total Student Strength
1.	Computer Sci.& Engineering	**U.G**	**4**	**1994**	**120**	**390 (U.G) + 18 (P.G) = 418**
2.	Mechanical Engineering	**U.G**	**4**	**1994**	**90**	
3.	Chemical Engineering	**U.G**	**4**	**1996**	**30**	
4.	Electronics & Comm.	**U.G**	**4**	**1997**	**120**	
5.	Information Technology	**U.G**	**4**	**2001**	**60**	
6.	Bio-Technology	**U.G**	**4**	**2006**	**60**	
7.	**Thermal Engineering**	**P.G**	**2**	**2007**	**18**	

Intake Since, 2005

Sl. No.	**Name of UG Programme**	**Sanction Intake**				
		2005	2006	2007	2008	2009
1.	Computer Science and Engineering	60	60	60	90	90
2.	Mechanical Engineering	60	90	90	90	90
3.	Electronics and Communication Engineering	40	60	60	60	60
4	Information Technology	40	60	60	60	60
5	Chemical Engineering	60	40	40	30	30
6.	Biotechnology	--	60	60	60	60
	TOTAL INTAKE	**260**	**370**	**370**	**390**	**390**

***10% seats of annual intake (over & above) are filled as Economically Weaker Category as directed by AICTE, New Delhi**

- **Accreditation Status of UG programmes :**

Title of UG programmes being offered	**Whether eligible for accreditation or not ?**	**Whether accredited as on 31st March, 2010 ?**	**Whether "Applied for" as on 31st March, 2010 ?**
Computer Science & Engg.	Yes	Yes	-
Electronics & Comm. Engg.	Yes	Yes	-
Mechanical Engg.	Yes	Yes	-
Bio-Technology	Yes	-	-
Chemical Engg.	Yes	-	-
Information Technology	Yes	-	-

- **Accreditation Status of PG programmes :**

Title of UG programmes being offered	**Whether eligible for accreditation or not ?**	**Whether accredited as on 31st March, 2010 ?**	**Whether "Applied for" as on 31st March, 2010 ?**
Thermal Engg.	Yes	-	-

Annexure – I

S. No. 1 (i) : Modernization & Strengthening of laboratories

Table-A

S. No.	Name of the Laboratory	Name of Equipment with Brief Specifications	Unit Price (Rs.)	Quantity Required
1	Fermentation Technology Lab	Batch Sterilization System for Media	2.0	One
		Air Sterilization System	2.0	One
		Bio-Fuel Set-up	2.5	One
2	Microbiology & Biochemistry	General Microbiological and Bio chemical equipment	1.0	One
	Total		**7.50 lacs**	

Table-B

List of Equipments costing above Rs 5 Lakh

S. No.	Name of the Laboratory	Name of Equipment with Brief Specifications	Unit Price (Rs lakh.)	Quantity Required	Present Quantity available in the Institution
1	Bioinformatics Lab	Bio Informatics Software	10.0	One	Nil
	Total		**10.00 lacs**		

Table– C

Equipments in Chemical Analytical Lab:

S. No.	Name of the Department/ central facility	Name of the laboratory & List of equipments	Total requirement (Rs. lakh)

	Chemical Engg.	**Chemical Analytical Lab:** **List of Equipments**: .Specific Ion Analyzer Electrochemical analyzer Magnetic stirrer with hot plate (2 Pc) .Lovibond ,Tintometer (For color measurement of edible oils & lubricants) .Refractometer (digital) Rheometer Intrusion Meter for MFI	 1.0 lac 0.90 lac 1.00 lac 0.1 lac 1.00 lac 7.0 lac
	Total		**11.10 Lac**

Table - D

Environmental Engg. Lab

S. No.	Name of the Laboratory	Name of Equipment with Brief Specifications	Unit Price (Rs.)	Quantity Required	Present Quantity available in the Institution
1.	Environmental Engg. Lab	1.BOD Measurement System(Lovibond) Range0-4000 mg/lt	2.0 lac	One	Nil
		2.COD Measurement System(Lovibond) range 0-15000 mg/lt	1.0 lac	One	Nil
		3.E- Coli Detectors for food and water	2.0 lac	One	Nil
		4.Continuous Ambient air quality monitoring System	3.0 lac	One	Nil

		5.NOx Analyzer	1.0 lac	One	Nil
		6.Cox Analyzer	1.0 lac	One	Nil
		7.Nephlometer Turbidimeter	0.35 lac	One	Nil
		8.Total Organic Carbon analyzer	1.00 lac	One	Nil
		9. Hydrocarbon Analyser	1.00 lac	One	Nil
		10. Respirable dust sampler	2.00 lac	One	Nil
		11. Semi micro weighing balance	2.00 lac	Two	Nil
		12.Ambient Air Monitor (Particulate anions and Cations in ambient Air)	2.00 lac	One	Nil
		13. Portable GC for VOC's in Air and Water	2.00lac	One	Nil
		14. Electo Chemistry instruments like pH/ conductivity/dissolved Oxygen/Salinity/ion meters	1.00 lac	One	Nil
		15.Anemometer	0.5 lac	One	Nil
		16. Digital Sound Level Meter	0.3 lac	One	Nil
		17. Refracto Meter	0.4 lac	One	Nil
		18. TDS Meter	0.2 lac	One	Nil
		19. Flame Photo Meter	0.5 lac	One	Nil
		20.Thermometer Digital	0.1 lac	One	Nil
		21. Specific Gravity Meter	0.5 lac	One	Nil
		221.Oven	0.5 lac	One	Nil
		23.Augers (Soil Sampling equipment)	0.5 lac	One	Nil
	Total		**24.85 Lacs**		

S. No. 1(ii) : Establishment of New Laboratories

S. No.	Name of the Laboratory	Name of Equipment with Brief Specifications	Unit Price (Rs lakh.)	Quantity Required	Present Quantity available in the Institution
1.	(Bio Technology Lab)	Scanning Electron Microscope	5.50	One	Nil
2.	Chemical Analytical Lab.	Viscometer : LVDV-11 (Brookfield along with water bath Temp range 0^0 C to 150^0 C) Computer Based	5.20	One	Nil
3.	Chemical Process Technology Lab	Thermal gravity Analyzer	7.00	One	Nil
4.	Chemical Reaction Engineering Lab	Catalyst Characterization Analyzer	8.00	One	Nil
	TOTAL		25.70 lakh		

S. No. I (iii) : Modernization of Class Room

S. No.	Name of the Department	Name of Equipment with Brief Specifications	Unit Price (Rs lakh.)	Quantity Required	Present Quantity available in the Institution
1	**Chemical Engg. & Bio-technology**	Multi Media Room with Computer Projector	**.80**	**4**	**2**
	TOTAL		**3.20 Lakh**		

S. No. I (iv) : Updation of Learning Resources

S. No.	Category of Items	Purpose for Which required	Estimated Cost (Rs lakh.)	Quantity Required
1.	E Journals	Research & Faculty	4.00	Single User
2.	Lap Top for Faculty	Faculty	5.00	10 User
	TOTAL		9.00	

S. No. I (v) : Procurement of Furniture

S. No.	Category of Items	Purpose for Which required	Estimated Cost (Rs lakh.)	Quantity Required
1.	Furniture & A.C	Faculty	4.00	Per Faculty
	TOTAL		4.00	

S. No. I (vi) : Establishment of New Software lab in Department

S. No.	Name of the Department	Name of Equipment with Brief Specifications	Unit Price (Rs lakh.)	Quantity Required	Present Quantity available in the Institution
1	**Chemical Engg. & Bio-technology**	Computer along Tables & Chairs	**.35**	**20**	**---**
	TOTAL		**7.0 Lakh**		

S. No. I (ix) : Refurbishment (Minor Civil Works)

S. No.	Name of the Department	Name of Equipment with Brief Specifications	Unit Price (Rs lakh.)	Quantity Required	Present Quantity available in the Institution
1	Chemical Engg. & Bio-technology	White Wash , Maintenance and Minor Repair	1	--	---
	TOTAL		1.0 Lakh		

S. No. (2) : Teaching & Research Assistantship

S. No.	Category of Expenditure	Fund Requirement (in lacs)
1.	Teaching Assistantship & Research Assistantship for Non-Gate Qualified Masters	4.00
2.	Foreign Fellowship for Doctoral Candidates	---
	TOTAL	4.00

S. No. (3) : Enhancement of R & D and Consultancy

S. No.	Category of Expenditure	Fund Requirement (in lacs)
1.	Expenditure for Publication of Research Paper in Referred Journals	4.00
2.	Expenditure for securing sponsored Projects	2.00
	TOTAL	6.00

S. No. 4 : Faculty & Staff Development

S. No.	Category of Expenditure	Fund Requirement (in lacs)
1.	Fee Charges for Course work & use of research facilities	5.00
2.	Expenses towards thesis writing & publication	3.00
	TOTAL	8.00

S. No. 5 : Industry –Institute Interaction

S. No.	Category of Expenditure	Fund Requirement (in lacs)
1.	Travel cost , Hospitality Honorarium and Industry Expert Lecture(s)	2.00
	TOTAL	2.00

S. No. 6 : Institutional Management Capacity Enhancement

S. No.	Category of Expenditure	Fund Requirement (in lacs)
1.	Training of Departmental Faculty	2.00
2.	Study Tours	8.00
	TOTAL	10.00

S. No. 7 : implementation of Institutional Reforms

S. No.	Category of Expenditure	Fund Requirement (in lacs)
1.	Curricular Reforms	1.00
2.	Incentive to Faculty for CE Programme, Consultancy & R/D	2.00
	TOTAL	3.00

S. No. 8 : Academic Support for Weak Students (Finishing School)

S. No.	Category of Expenditure	Fund Requirement (in lacs)
1.	Honorarium to Faculty & Staff for Bridge Courses & Remedial Teaching Classes	2.00
2.	Honorarium to outside Expert in Communication skills	1.00
	TOTAL	3.00

S. No. 9 : Technical assistance for Procurement & Academic Activities

S. No.	Category of Expenditure	Fund Requirement (in lacs)
1.	Procurement of Civil Works	1.00
2.	Pedagogical Training	1.00
	TOTAL	2.00

S. No. 10 : Incremental Operating Cost

S. No.	Category of Expenditure	Fund Requirement (in lacs)
1.	TA & DA for Faculty Staff Attending workshop, training & Meeting NPIU & SPFU	1.00
2	Hiring of Vehicles for Project works	2.00
3.	Expenses on Office operation	1.00
4.	Expenditure on participation by faculty in seminar, Conferences & Workshop	5.00
	TOTAL	9.00

Annexure – II
Department of Computer Sc. & Engg

Infrastructure improvements for teaching, training and learning through:

1. (i) Modernizing and Strengthening of Laboratories:

S. No	Name of the Laboratory	Name of Equipment with Brief Specifications	Unit Price (Rs.)	Quantity Required	Total Cost
1	Software Labs	Latest configuration Computer Systems & other Hardware	35000.00	40	14.00Lacs
2	-same-	Multimedia projector	50000.00	01	0.50Lac
3	-same-	UPS 800 VA	3500.00	40	1.40 Lacs
4	-same-	Electronic White board	95000.00	03	2.85 Lac
5	-same-	Laser Printer All-in-one	65000.00	01	0.65Lacs
6	-same-	Laser Printer	12000.00	05	0.60Lacs
				Total	**20.00 Lacs**

1.(ii) Establishment of new laboratories for existing UG : Rs 8 Lacs

S. No	Name of the Laboratory	Name of Equipment with Brief Specifications	Unit Price (Rs.)	Quantity Required	Total Cost
1	Network Security Lab	Laptops	50000.00	12	6.00Lacs
2	-same-	IBM Rational Rose software	200000.00	1	2.00Lacs
		Total			**8.00 Lacs**

1. (iii) Modernization of classrooms:

S. No	Nature of Room	Name of Equipment with Brief Specifications	Unit Price (Rs.)	Quantity Required	Total Cost
1	Lecture Halls	LCD Projector with computer systems	137000.00	03	4.10Lacs
2	-same-	Audio System_ with Collar MIC and speakers	15000-00	03	0.45 Lac
3	-same-	Curtains	50000-00	All Labs & Lecture Halls	0.50 Lacs
4	-same-	Electronic White board	98333.00	03	2.95 Lac
				Total	**8.0 Lacs**

1.(iv) Updation of Learning Resources

S. No	Nature of Resources	Name of Resources with Brief Specifications	Unit Price (Rs.)	Quantity	Total Cost (Rs)
1	Video Lecture/CD/DVDs Series of Engg. Subjects	All Available Engg. Subjects	5000	10	0.50Lac
2	Computer	Laptop	50000	5	2.5Lacs
				Total	3.00 Lacs

1. (v) Procurement of furniture

S. No.	Lab/classroom/ faculty room/ workshop/ Computer room/ library/any other	Name of Furniture Item with brief specifications	Unit Price (Rs.)	Quantity Required	Cost	Purpose for which required
1	**Departmental Library**	Book Racks	10000	10	1.00 Lacs	Library Use
		Reading Chairs	2000	20	0.40 Lacs	Library Use

		Reading Tables	5000	04	0.20 Lacs	Library Use
		Almirah	5000	04	0.20 Lacs	Library Use
3.	**Hardware Lab**	Almirah	5000	02	0.10 Lac	Lab Use
		Computer Tables	5000	04	0.20 Lacs	For Computers
		Cushioned Chairs	2000	05	0.10 Lac	Lab Use
4	**Software Labs**	Almirah	5000	06	0.3Lac	Lab Use
		Computer Tables	5000	30	1.50Lac	For Computers
		Cushioned Chairs	2000	50	1.00 Lac	Lab Use
				Total	**5.00 Lacs**	

1. (viii) Modernization and Strengthening of Libraries and Increasing access to knowledge resources

S. No.	Name of the Department	Name of Equipment with Brief Specifications	Unit Price (Rs lakh.)	Quantity Required	Price (Rs.)
1	**Computer Sc. & Engg.**	**Text and Reference books in Computer Sc.**	**Average Rs. 500**	**200 Books**	**1.00 lac**
				TOTAL	**1.00 Lac**

1. (ix) Refurbishment (Minor Civil Works):

S. No.	Name of the Department	Name of Equipment with Brief Specifications	Unit Price (Rs lakh.)
1	**Computer Sc. & Engg**	White-wash, maintenance and other minor Repair work	**1.00lac**
		TOTAL	**1.0 Lac**

2. Providing Teaching and Research Assistantships to increase enrolment in existing and new PG programmes in Engineering disciplines :

S. No.	Category of Expenditure	Fund Requirement (in lacs)
1.	Teaching Assistantship & Research Assistantship for Non-Gate Qualified Masters	4.00
2.	Foreign Fellowship for Doctoral Candidates	---
	TOTAL	4.00 Lacs

3. Enhancement of R&D and institutional consultancy activities*:

S. No.	Category of Expenditure	Fund Requirement (in lacs)
1.	Expenditure for Publication of Research Paper in Referred Journals	2.00
2.	Expenditure for securing sponsored Projects	1.00
	TOTAL	3.00 Lacs

4. Faculty and Staff Development (including faculty qualification upgradation, pedagogical training, and organising/participation of faculty in workshops, seminars and conferences) for improved competence based on TNA:

S. No.	Category of Expenditure	Fund Requirement (in lacs)
1.	Fee Charges for Course work & research papers	1.00
2.	Travel grants for presenting the research papers national and international level	5.00
	TOTAL	6.00 Lacs

5. Enhanced Interaction with Industry:

S. No.	Category of Expenditure	Fund Requirement (in lacs)
1.	Travel cost , Hospitality Honorarium and Industry Expert Lecture	1.00
	TOTAL	1.00 Lac

6. Institutional Management Capacity Enhancement:

. No.	Category of Expenditure	Fund Requirement (in lacs)
1.	Training of Departmental Faculty	1.00
2.	Study Tours	3.00
TOTAL		4.00 Lacs

7. Implementation of Institutional Reforms:

S. No.	Category of Expenditure	Fund Requirement (in lacs)
1.	Curricular Reforms	0.50
2.	Incentive to Faculty for CE Programme, Consultancy & R/D	0.50
	TOTAL	1.00 Lac

8. Academic support for weak students under the aegis of Finishing School:

S. No.	Category of Expenditure	Fund Requirement (in lacs)
1.	Honorarium to Faculty & Staff for Bridge Courses & Remedial Teaching Classes	3.00
2.	Honorarium to outside Expert in Communication skills + Any course material to be provided for weak students	1.00
TOTAL		4.00 Lacs

9. Technical assistance for procurement and academic activities:

S. No.	Category of Expenditure	Fund Requirement (in lacs)
1.	Procurement of Civil Works	0.25
2.	Pedagogical Training	0.75
	TOTAL	1.00 Lac

10. Incremental Operating Cost:

S. No.	Category of Expenditure	Fund Requirement (in lacs)
1.	TA & DA for Faculty Staff Attending workshop, training & Meeting NPIU & SPFU	0.50
2	Hiring of Vehicles for Project works	1.00
3.	Expenses on Office operation	0.50
4.	Expenditure on participation by faculty in seminar, Conferences & Workshop	3.00
	TOTAL	5.00

Annexure – III

Electronics & Communication Engineering

Infrastructure improvements for teaching, training and learning through:

1. (i) Modernizing and strengthening of Laboratories:

S. No	Name of the Laboratory	Name of Equipment with Brief Specifications	Unit Price (Rs.)	Quantity Required	Total Cost
1	Instrumentation Lab	Lab View Software and Hardware	500000-00	01	5 Lacs
2	-same-	Computer with Latest Configuration	35000-00	02	0.70 Lac
3	-same-	UPS 800 VA	3500-00	02	0.07 Lacs
4	-same-	Experimental Kits	5000-00	20	1 Lac
5	Electrical Lab	Experimental Kits and Equipments	5000-00	20	1 Lac
6	-same-	ABAQUS Software Latest Version	700000-00	01	7 Lac
7	-same-	Computer with Latest Configuration	35000-00	02	0.70 Lac
8	-same-	UPS 800 VA	3500-00	02	0.07 Lacs
9	-same-	Wattmeter	10000-00	5	0.5 Lacs
10	-same-	Power Factor Meter	10000-00	2	0.2 Lacs
11	VLSI Lab	Computer with Latest Configuration	35000-00	05	1.75 Lac
12	-same-	UPS 800 VA	3500-00	05	0.175 Lacs
13	-same-	Networking Components+ Installation	100000-00	01	1 Lac
14	-same-	Wireless network nodes	1000-00	15	0.15 Lac
15	-same-	Altera FPGA /CPLD kits/ Target Boards + accessories	25000-00	20	5 Lacs

16	-same-	Xilinx FPGA/CPLD kits/Target boards + accessories	25000-00	20	5 Lacs
17	-same-	Universal FPGA/CPLD kits/ Target Boards+ accessories	30000-00	10	3 Lacs
18	-same-	VLSI Design , analysis and synthesis, design verification, Place & Routing, Optimization (Complete package)	900000-00	1	9 Lacs
19	Microprocessor and Microcontroller Lab	Computer Latest Configuration	35000-00	10	3.5 Lacs
20	-same-	UPS 800 VA	3500-00	10	0.35 Lacs
21	-same-	(a) In Circuit Emulator 8085/86/51	100000-00	1	1 Lacs
22	-same-	Digital IC Tester	50000-00	1	0.5 Lacs
23	-same-	Keil Software (Assembler, Simulator, C-Cross Compilers , Download to target Boards IDE for 8051)	200000-00	1	2 Lacs
24	-same-	Protues Software for Simulation and PCB Designing	500000-00	1	5 Lacs
25	-same-	8086 experimental kits	5000-00	10	0.5 Lacs
26	-same-	8085 Experimental kits	5000-00	10	0.5 Lacs
27	-same-	8051 Experimental Kits	5000-00	10	0.5 Lacs
28	PCB Lab	OrCAD latest Version, multiuser	500000-00	1	5.0 Lacs
29	-same-	PCB Soldering Workstation	50000-00	2	1.0 Lacs
30	-same-			01	0.2 Lacs

		PCB Film maker	20000-00		
31	-same-	PCB Curing machine	20000-00	01	0.2 Lacs
32	-same-	Dip coating machine	25000-00	01	0.25 Lacs
33	-same-	DOUBLE SIDED U.V. Exposure	40000-00	01	0.4 Lacs
34	-same-	Etching Machine	30000-00	01	0.3 Lacs
35	-same-	PCB Drilling Machine	20000-00	01	0.2 Lacs
36	-same-	PCB Shearing Machine	20000-00	01	0.2 Lacs
37	-same-	Roller Tinning Machine	40000-00	01	0.4 Lacs
38	-same-	Chemicals for PCB	35000-00	01	0.35 Lacs
39	-same-	Dry Film laminator	50000-00	01	0.5 Lacs
40	-same-	Thru Hole plating System	50000-00	01	0.5 Lacs
41	Communication Lab	Commsim Software	400000-00	01	4 Lacs
42	-same-	Qualnet Software	650000-00	01	6.5 Lacs
43	-same-	Function Generator	15000-00	04	0.6 Lacs
44	-same-	Computer Latest Configuration	35000-00	05	1.75 Lacs
45	-same-	UPS 800 VA	3500-00	05	0.175 Lacs
46	-same-	Experimental Kits	5000-00	20	1.0 Lac
47	-same-	Scanner	5000-00	2	0.1 Lacs
48	Computer Lab	Computer Latest Configuration	35000-00	20	7 Lacs
49	-same-	UPS 800 VA	3500-00	20	0.7 Lacs

50	-same-	External Hard Disk	3500-00	2	0.07 Lacs
51	-same-	Networking	200000-00	1	2 Lacs
52	Analog Electronics Lab	Experimental Kits	5000-00	20	1.00 Lac
53	Digital Electronics lab	Experimental Kits	5000-00	20	1.00 Lac
54	Linear Control System Lab	Experimental Kits	10000-00	20	2.00 Lacs
55	Electronics Devices and Ckts Lab	Experimental Kits	5000-00	20	1.00 Lac
56	Microwave Lab	Microwave Bench	100000-00	2	2.00 Lacs
		Total			**95.56 Lacs**

1.(ii) Establishment of new laboratories for existing UG/PG and future UG/PG Courses : Rs 16.05 Lacs

The PTU syllabus is under review and a new Lab is to be established as per the new syllabus

1. (iii) Modernization of classrooms:

S. No	Nature of Room	Name of Equipment with Brief Specifications	Unit Price (Rs.)	Quantity Required	Total Cost
1	Lecture Hall	LCD Projector	100000-00	02	2 Lacs
2	-same-	Audio System_ with Collar MIC and speakers	15000-00	02	0.30 Lac
3	-same-	Curtains	50000-00	All Labs & Lecture Halls	0.50 Lacs
4	Lecture Hall and Labs	White/Green Boards	12000-00	10	1.2 Lacs
		Total			**4.0 Lacs**

1.(iv) Updation of Learning Resources

S. No	Nature of Resources	Name of Resources with Brief Specifications	Unit Price (Rs.)	Total Cost
1	Video Lecture/CD/DVDs Series of Engg. Subjects	All Available Engg. Subjects	200000-00	2 Lacs
2	Laptop (For Faculty) (10 Nos.)	Latest Configuration	35000-00	3.5 Lacs
3	Scanner (05 Nos.)	Latest Configuration	4000-00	0.02 Lacs
4	White Board (10)	3'x4'	4000-00	0.4 Lacs
		Total		**5.92 Lacs**

1. (v) Procurement of furniture

S. No.	Lab/classroom/ faculty room/ workshop/ Computer room/ library/any other	Name of Furniture Item with brief specifications	Unit Price (Rs.)	Quantity Required	Cost	Purpose for which required
1	**ECE Office**	Revolving Chair	5000	01	0.05 Lacs	Office Use
		Office Chairs	4000	10	0.40 Lacs	Office and Lab Use
		Office Table 6'x4'	15000	01	0.15 Lacs	Office Use
2	**Departmental Library**	Book Racks	10000	10	1 Lacs	Library Use
		Reading Chairs	4000	10	0.40 Lacs	Office and Lab Use
		Reading Tables	5000	02	0.10 Lacs	Library Use
		Almirah	5000-00	02	0.10 Lac	Lab Use
3.	**Electrical Lab**	Almirah	5000-00	02	0.10 Lac	Lab Use

	& Inst. Lab.					
		Computer Tables	5000-00	04	0.20 Lacs	For Computers
		Cushioned Chairs	2000-00	04	0.08 Lac	Lab Use
4	**Microprocessor and Microcontroller Lab**	Almirah	5000-00	01	0.05Lac	Lab Use
		Computer Tables	5000-00	10	0.50Lac	For Computers
		Cushioned Chairs	2000-00	10	0.20 Lac	Lab Use
5	**PCB Lab**	Almirah	5000-00	01	0.05Lac	Lab Use
6	**Computer Lab**	Almirah	5000-00	02	0.10 Lac	Lab Use
		Computer Tables	5000-00	20	1.00 Lac	For Computers
		Cushioned Chairs	2000-00	20	0.40 Lac	Lab Use
7	**VLSI Lab**	Almirah	5000-00	01	0.05 Lac	Lab Use
		Computer Tables	5000-00	05	0.25 Lac	For Computers
		Cushioned Chairs	2000-00	05	0.10 Lac	Lab Use
8	**Analog Electronics**	Almirah	5000-00	01	0.05 Lac	Lab Use
		Stool	800-00	30	0.24 Lacs	Lab Use
9	**Communication Lab**	Computer Tables	5000-00	05	0.25 Lac	For Computers
		Cushioned Chairs	2000-00	05	0.10 Lac	Lab Use
		Almirah	5000-00	01	0.05 Lac	Lab Use
		Total			**5.97 Lacs**	

1.(ix) Repair and Maintenance of ECE Department 7.5 Lacs

I (ix) Civil Works

S. No.	Name of the Department	Fund Requirement (in lacs)	Fund Requirement (in lacs)
1	ECE Department	White Wash , Maintenance and Minor Repair / Modification	7.50
	TOTAL		7.50 Lacs

2. Teaching & Research Assistantship

S. No.	Category of Expenditure	Fund Requirement (in lacs)
1.	Teaching Assistantship & Research Assistantship for Non-Gate Qualified Masters	Nil ---
	Foreign Fellowship for Doctoral Candidates	
	TOTAL	Nil

Sr (3) Enhancement of R & D and Consultancy

S. No.	Category of Expenditure	Fund Requirement (in lacs)
1.	Expenditure for Publication of Research Paper in Referred Journals	2.00
2.	Expenditure for securing sponsored Projects	
3.	Expenditure for patenting of research	
4.	Travel cost, Hospitality and Honorarium paid to consultant for participation in research and development and delivering spot lectures	
	TOTAL	2.00

Sr. 4 Faculty & Staff Development

S. No.	Category of Expenditure	Fund Requirement (in lacs)
1.	Fee Charges for Course work & use of research facilities	2.00
2.	Expenses towards thesis writing & publication	
3.	Consumable if the faculty is registered for qualification up gradation in the parent institute.	
	TOTAL	2.00

Sr.5 Industry –Institute Interaction

S. No.	Category of Expenditure	Fund Requirement (in lacs)
1.	Travel cost , Hospitality, Honorarium and Industry Expert Lecture	2.00
	TOTAL	2.00

Sr. 6 Institutional Management Capacity Enhancement

S. No.	Category of Expenditure	Fund Requirement (in lacs)
1.	Training of Departmental Faculty	3.00
2.	Study Tours	
	TOTAL	3.00

Sr. 7 Institutional Reforms

S. No.	Category of Expenditure	Fund Requirement (in lacs)
1.	Curricular Reforms	0.50
2.	Incentive to Faculty for CE Programme, Consultancy & R/D	
	TOTAL	0.50

Sr.8 Academic Support for Weak Students (Finishing School)

S. No.	Category of Expenditure	Fund Requirement (in lacs)
1.	Honorarium to Faculty & Staff for Bridge Courses & Remedial Teaching Classes	1.00
2.	Honorarium to outside Expert in Communication skills	
	TOTAL	1.00

Sr.9 Technical assistance for Procurement & Academic Activities

S. No.	Category of Expenditure	Fund Requirement (in lacs)
1.	Procurement of Civil Works	0.50
2.	Pedagogical Training	
	TOTAL	0.50

Sr.10 Incremental Operating Cost

S. No.	Category of Expenditure	Fund Requirement (in lacs)
1.	TA & DA for Faculty Staff Attending workshop, training & Meeting NPIU & SPFU	4.0
2	Hiring of Vehicles for Project works	
3.	Expenses on Office operation	
4.	Expenditure on participation by faculty in seminar, Conferences & Workshop	
	TOTAL	4.00

Annexure – IV

Department of Information Technology

Infrastructure improvements for teaching, training and learning through:

1. (i) Modernizing and strengthening of Laboratories:

S. No	Name of the Laboratory	Name of Equipment with Brief Specifications	Unit Price (Rs.)	Quantity Required	Total Cost
1	Software Labs	Network Simulator	915000.00	01	9.15Lacs
2	-same-	Latest Configuration Computer System with other hardware	35000.00	28	9.80Lacs
3	-same-	UPS 800 VA	3500.00	28	0.98 Lacs
4	-same-	Electronic White board	100000.00	02	2.00 Lacs
		Total			**21.93 Lacs**

1.(ii) Establishment of new laboratories for existing UG : Rs 8 Lacs

S. No	Name of the Laboratory	Name of Equipment with Brief Specifications	Unit Price (Rs.)	Quantity Required	Total Cost
1	Mobile Computing Lab	Laptops	50000.00	12	6.00Lacs
2	-same-	Linux Operating System	200000.00	1	2.00Lacs
		Total			**8.00 Lacs**

1. (iii) Modernization of classrooms:

S. No	Nature of Room	Name of Equipment with Brief Specifications	Unit Price (Rs.)	Quantity Required	Total Cost

1	Lecture Halls	LCD Projector with Computer Systems	100000.00	01	1.00Lacs
2	-same-	Multimedia Digital Podium	900000.00	01	9.00 Lacs
				Total	**10.0 Lacs**

1.(iv) Updation of Learning Resources

S. No	Nature of Resources	Name of Resources with Brief Specifications	Unit Price (Rs.)	Quantity	Total Cost (Rs)
1	Video Lecture/CD/DVDs Series of Engg. Subjects	All Available Engg. Subjects	5000	10	0.50Lac
2	Computer	Laptop	50000	3	1.5Lacs
				Total	2.00 Lacs

1. (v) Procurement of furniture

S. No.	Lab/classroom/ faculty room/ workshop/ Computer room/ library/any other	Name of Furniture Item with brief specifications	Unit Price (Rs.)	Quantity Required	Cost	Purpose for which required
1	Departmental Library	Book Racks	10000	10	1.00 Lacs	Library Use
		Reading Chairs	2000	20	0.40 Lacs	Library Use
		Reading Tables	5000	04	0.20 Lacs	Library Use
		Almirah	5000	04	0.20 Lacs	Library Use
2.	Hardware Lab	Almirah	5000	02	0.10 Lac	Lab Use
		Computer Tables	5000	04	0.20 Lacs	For Computers
		Cushioned Chairs	2000	05	0.10 Lac	Lab Use
3	Software Labs	Almirah	5000	06	0.3Lac	Lab Use

		Computer Tables	5000	30	1.50Lac	For Computers
		Cushioned Chairs	2000	50	1.00 Lac	Lab Use
				Total	**5.00 Lacs**	

1. (viii) Modernization and Strengthening of Libraries and Increasing access to knowledge resources

S. No.	Name of the Department	Name of Equipment with Brief Specifications	Unit Price (Rs lakh.)	Quantity Required	Price (Rs.)
1	**Computer Sc. & Engg.**	**Text and Reference books in Computer Sc.**	**Average Rs. 500**	**200 Books**	**1.00 lac**
				TOTAL	**1.00 Lac**

1. (ix) Refurbishment (Minor Civil Works):

S. No.	Name of the Department	Name of Equipment with Brief Specifications	Unit Price (Rs lakh.)
1	**Computer Sc. & Engg**	White-wash, maintenance and other minor Repair work	**1.00lac**
		TOTAL	**1.0 Lac**

2. Providing Teaching and Research Assistantships to increase enrolment in existing and new PG programmes in Engineering disciplines:

S. No.	Category of Expenditure	Fund Requirement (in lacs)
1.	**Teaching Assistantship & Research Assistantship for Non-Gate Qualified Masters**	**4.00**
2.	**Foreign Fellowship for Doctoral Candidates**	**---**
	TOTAL	**4.00 Lacs**

3. Enhancement of R&D and institutional consultancy activities*:

S. No.	Category of Expenditure	Fund Requirement (in lacs)
1.	Expenditure for Publication of Research Paper in Referred Journals	2.00
2.	Expenditure for securing sponsored Projects	1.00
	TOTAL	3.00 Lacs

4. Faculty and Staff Development (including faculty qualification upgradation, pedagogical training, and organising/participation of faculty in workshops, seminars and conferences) for improved competence based on TNA:

S. No.	Category of Expenditure	Fund Requirement (in lacs)
1.	Fee Charges for Course work & research papers	1.07
2.	Travel grants for presenting the research papers national and international level	2.00
	TOTAL	3.07 Lacs

5. Enhanced Interaction with Industry:

S. No.	Category of Expenditure	Fund Requirement (in lacs)
1.	Travel cost , Hospitality Honorarium and Industry Expert Lecture	1.00
	TOTAL	1.00 Lac

6. Institutional Management Capacity Enhancement:

S. No.	Category of Expenditure	Fund Requirement (in lacs)
1.	Training of Departmental Faculty	1.00
2.	Study Tours	2.00
TOTAL		3.00 Lacs

7. Implementation of Institutional Reforms:

S. No.	Category of Expenditure	Fund Requirement (in lacs)
1.	Curricular Reforms	0.50
2.	Incentive to Faculty for CE Programme, Consultancy & R/D	0.50
	TOTAL	1.00 Lac

8. Academic support for weak students under the aegis of Finishing School:

S. No.	Category of Expenditure	Fund Requirement (in lacs)
1.	Honorarium to Faculty & Staff for Bridge Courses & Remedial Teaching Classes	3.00
2.	Honorarium to outside Expert in Communication skills + Any course material to be provided for weak students	1.00
TOTAL		4.00 Lacs

9. Technical assistance for procurement and academic activities:

S. No.	Category of Expenditure	Fund Requirement (in lacs)
1.	Procurement of Civil Works	0.25
2.	Pedagogical Training	0.75
	TOTAL	1.00 Lac

10. Incremental Operating Cost:

S. No.	Category of Expenditure	Fund Requirement (in lacs)
1.	TA & DA for Faculty Staff Attending workshop, training & Meeting NPIU & SPFU	0.50
2	Hiring of Vehicles for Project works	1.00
3.	Expenses on Office operation	0.50
4.	Expenditure on participation by faculty in seminar, Conferences & Workshop	3.00
	TOTAL	5.00

Annexure – V

Department of Mechanical Engineering

Infrastructure improvements for teaching, training and learning through:

Funds required : for Lab Developments : 78.4 L

1 (i) for modernization and strengthening of Labs *

- Metrology lab : 4.50 L
- CAD Lab : 9.0 L
- Renewable Energy Lab : 6.0 L
- RAC Lab : 7.5 L

(ii) **establishment of New Labs** (For M. Tech. Exisiting /New Programs) **

- Tribology Lab :44.9 L
- CFD Lab. :6.5 L

Metrology Lab

1. Software for upgradation of Mitutoya make Surface Roughness Tester: 4.50 L

CAD Lab

1. CATIA V6 Design software for 10 users : 9.0 L

CATIA Softwares are commonly available in all educational institutes. The software is used for the design and analysis purpose. If it is purchased, the lab will be modernized in a way to cater the future need of the students from the employability point of view.

Renewable Energy Lab

1. Data Logger (32 channels) having extension module upto 100 channels : 2 L
2. Digital Micromanometer: 2 L
3. Thermocouple caliberator: 2 L

RAC LAB

1. Cryogenic Treatment Processor: 7.5 L

The equipment can be used in the field of Refrigeration and A/c, heat transfer, engine parts, metals, bearings etc . for improving performance in terms of strength, durability and wear resistance. This is new technology and research is being pursued by a number of faculty in the department. The facility may further enhance the research in the area.

Establishment of New Labs (For M. Tech. Exisiting /New Programs) **

Tribology Lab

1. Comprehensive Material Testing for Mechanical and Tribological Properties (UMT): 44.90 L

The UMT machine is useful for PG and research purposes. A use of the machine for consultancies and research related to tribological field in various industrial applications like automotive, aerospace, microelectronics, electric contacts, metals, ceramics, bio-materials, composite materials, lubricants, additives, thin films, coatings, polymers, elastromers, paper, fabric and nuclear apllications etc. could be

conducted. Currently we are in the process of MOU with BARC. The availability of the machine will be a good platform for conducting quality research in the area of Tribology, which is very much lacking in the region.
A single machine which can perform multiple mechanical functional test (like scratch, wear, adhesion, friction, fatigue, lubricity and strain) along with the multiple sensors for in-situ test monitoring justify fully the cost of the machine.

CFD Lab

1. FLUENT Software: 6.5 L

This software is related with the fluid dymanics. For PG students of thermal engineering, this software is needed. This software will be used in the understanding of fluid related problems as well as in pursuing their thesis work.

Funds required for upgradation of Departmental Computer Centre : 4.6 L #

1. PC with compatible configuration, 10 Nos. : 4.0 L
2. Computer furniture(chairs and tables), 12 Nos : 0.6 L

Funds required for updation of learning resources : 12.0 L ^

1. Laptop and laser printer for every faculty @0.55 L x 20 =11.0 L
2. White board and other office materials @0.05 L x 20 = 1.0 L

The laptop is desired for the presentation of lecture / seminar inside or outside of the college. In order to maintain the similiarty with the other department, the facility of this department has created the highest IRG, therefore may be provided the material for the updating of learning resources.

1. (i) Modernizing and strengthening of Laboratories:

S. No	Name of the Laboratory	Name of Equipment with Brief Specifications	Unit Price (Rs.)	Quantity Required	Total Cost
1	Metrology Lab	Software for upgradation of Mitutoya make Surface Roughness Tester	4.5 L	1	4.5 L
2	CAD LAB	CATIA V6 DESIGN SOFTWARE (10 USERS)	9.0 L	1	9.0 L
3	RENEWABLE ENERGY LAB	1. Data Logger (32 channels) having extension module upto 100 channels 2. Digital Micromanometer 3. Thermocouple caliberator	2.0 L 2.0 L 2.0 L	One each	6.0 L
4	RAC Lab	Cryogenic Treatment Processor	7.5 L	01	7.5
		Total			**27 L**

1.(ii) Establishment of new laboratories for existing PG : Rs 51.4 Lacs

S. No	Name of the Laboratory	Name of Equipment with Brief Specifications	Unit Price (Rs.)	Quantity Required	Total Cost
1	Tribology Lab	Comprehensive material testing for mechanical and tribological properties	44.9 L	1	44.9 L
2	CFD LAB	FLUENT Software	6.5 L	1	6.5 L
		Total			**51.4 L**

1. (iii) Modernization of classrooms:

S. No	Nature of Room	Name of Equipment with Brief Specifications	Unit Price (Rs.)	Quantity Required	Total Cost
1	Lecture Halls	LCD Projector with Computer Systems	75000.00	04	3.00Lacs
				Total	**3.0 Lacs**

1.(iv) Updation of Learning Resources

S. No	Nature of Resources	Name of Resources with Brief Specifications	Unit Price (Rs.)	Quantity	Total Cost (Rs)
1	Faculty offices	White board and office materials	5000	20	1.0L
2	Computer	Laptop and laser printer	55000	20	11 L
				Total	12.0 L

1. (v) Procurement of furniture

S. No	Lab/classroom/ faculty room/ workshop/ Computer room/ library/any other	Name of Furniture Item with brief specifications	Unit Price (Rs.)	Quantity Required	Cost
1	For Mech. Engg. department	Book Racks, Reading chairs, almirah, computer tables, cushioned chairs etc			3.0 L
		Total			**3.0 L**

1. (viii) Modernization and Strengthening of Libraries and Increasing access to knowledge resources

S. No.	Name of the Department	Name of Equipment with Brief Specifications	Price (Rs.)
1	**Mech. Engg.**	**Text and Reference books, networking in Mech. Engg and other students / faculty related expenditure for experimetnation.**	**5.00 L**
		TOTAL	**5.00 Lac**

1. (ix) Refurbishment (Minor Civil Works):

S. No.	Name of the Department	Name of Equipment with Brief Specifications	Unit Price (Rs lakh.)
1	**Mech. Engg**	White-wash, maintenance and other minor Repair work	**1.5lac**
		TOTAL	**1.0 Lac**

2. Providing Teaching and Research Assistantships to increase enrolment in existing and new PG programmes in Engineering disciplines:

S. No.	Category of Expenditure	Fund Requirement (in lacs)
1.	**Teaching Assistantship & Research Assistantship for Non-Gate Qualified Masters**	**7.50**
	TOTAL	**7.5 L**

3. Enhancement of R&D and institutional consultancy activities*:

S. No.	Category of Expenditure	Fund Requirement (in lacs)
1.	Expenditure for Publication of Research Paper in Referred Journals	2.00
2.	Expenditure for securing sponsored Projects	1.00
	TOTAL	3.00 Lacs

4. Faculty and Staff Development (including faculty qualification upgradation, pedagogical training, and organising/participation of faculty in workshops, seminars and conferences) for improved competence based on TNA:

S. No.	Category of Expenditure	Fund Requirement (in lacs)
1.	Expenditure for organizing and conducting of seminar / workshop /conferences (National Level /international level)	7.5 L
	TOTAL	7.5 L

5. Enhanced Interaction with Industry:

S. No.	Category of Expenditure	Fund Requirement (in lacs)
1.	Travel cost , Hospitality Honorarium and Industry Expert Lecture	3.0L
	TOTAL	3.0L

6. Institutional Management Capacity Enhancement:

S. No.	Category of Expenditure	Fund Requirement (in lacs)
1.	Training of Departmental Faculty	1.00
2.	Study Tours	2.00
TOTAL		3.00 Lacs

7. Implementation of Institutional Reforms:

S. No.	Category of Expenditure	Fund Requirement (in lacs)
1.	Curricular Reforms	1.50
2.	Incentive to Faculty for CE Programme, Consultancy & R/D	1.50
	TOTAL	3.0 Lac

8. Academic support for weak students under the aegis of Finishing School:

S. No.	Category of Expenditure	Fund Requirement (in lacs)
1.	Honorarium to Faculty & Staff for Bridge Courses & Remedial Teaching Classes	2.00
2.	Honorarium to outside Expert in Communication skills + Any course material to be provided for weak students	1.00
TOTAL		3.00 Lacs

9. Technical assistance for procurement and academic activities:

S. No.	Category of Expenditure	Fund Requirement (in lacs)
1.	Procurement of Academic activities	1.5
2.	Pedagogical Training	1.5
	TOTAL	3.0 Lac

10. Incremental Operating Cost:

S. No.	Category of Expenditure	Fund Requirement (in lacs)
1.	TA & DA for Faculty Staff Attending workshop, training & Meeting NPIU & SPFU	1.50
2	Hiring of Vehicles for Project works	1.00
3.	Expenses on Office operation	2.00
4.	Expenditure on participation by faculty in seminar, Conferences & Workshop	3.00
	TOTAL	7.5 L

Annexure – VI
Departement of Applied Sciences

Table A

S. No.	Name of the Laboratory	Name of Equipment with Brief Specifications	Unit Price (Rs. in lakh)	Total Amount (Rs. In lakhs)	Present Quantity available in the Department
1.	Electrical Transport, Spectroscopy and Surface Morphology Lab	Air-Conditioners - 05	0.30	1.50	Nil
2.	-- Same as above --	LCD Projector - 02	0.75	1.50	Nil
3.	-- Same as above --	UPS System (Offline) 1 kVA - 05	0.05	0.25	Nil
4.	-- Same as above --	UPS System (Online) 6 kVA - 02	2.00	4.00	Nil
5.	Numerical Analysis Lab	UPS System (Offline) 1 kVA - 10	0.05	0.50	Nil
6.	-- Same as above --	Computer Systems with latest configuration - 20	**0.50**	10.00	Nil
7.	-- Same as above --	**Workstation Server (2-quadra intel core processor) multi-user for simulation**	**3.00**	3.00	Nil
8.	-- Same as above --	**Software – Mathematica, SPSS, MAPPLE, Sigmaplus etc.**	**--**	10.00	nil
9.	-- Same as above --	**Laser Printer - 02**	**0.20**	0.40	nil
10.	-- Same as above --	**Laser Printer cum Scanner - 01**	**0.40**	0.40	nil
		TOTAL		31.55	

Table B

S. No.	Name of the Department	Name of Equipment with Brief Specifications	Unit Price (Rs lakh.)	Qty.	Remarks
1.	Fabrication Lab.	*High Temperature Programmable Muffel Furnace (1400^{o}C)*	02.00	01	
2.	Fabrication Lab.	Spin – Coating system for thin film	01.00	01	
3.	Chemical Lab.	Chemical(s)	03.00	--	
4.	Chemical Lab.	Chemical Lab Equipment includes: pH meter, hot-plates with magnetic stirrer, ultrasonic bath, water purifier, glass-wares, electronic balance(s) etc.	03.00	--	
5.	Thermal Analysis Lab.	Thermo Gravimetric Analyser/Differential calorimetric analyzer	10.00	01	
6.	Electrical Transport Lab.	Kithely Dual Channel source meter, Lakeshore temperature controller, LCR meter Closed cycle refrigerator	25.00	01 each	
7.	Spectroscopy Lab	UV-visible absorption set-up	10.00	01	
8.	Spectroscopy Lab	FTIR System	12.00	01	
9.	Surface-morphology lab	Atomic force microscope (AFM)	30.00	01	
10.	**TOTAL**		96.00		

Annexure-A

Fabrication Laboratory

Nanomaterials are grown by several techniques in the laboratory including mechanical milling, chemical vapour deposition (CVD), ion implantation, sol-gel etc. CVD is ideal for growing large quantities (for composites) as well as for controlled growth on patterned substrates (for nanoelectronics). Carbon and boron nitride nanotubes exhibits extraordinary mechanical properties and are widely synthesized via mechanical milling of the graphite and hexagonal boron nitride. Now a days fabrication of nanoparticles in a substrate matrix for photonics devices in semiconductor industry has been achieved by ion –implantation. The nano particles can also be synthesized via chemical route following sol-gel method. The nanomaterials can be metallic or semiconducting and offers amazing possibilities to create future nanoelectronics devices, circuits, and computers.

High temperature furnaces (tube and box types) are required to synthesize bulk and nano materials using solid state reaction technique. This will also be useful to prepare targets for thin films of the required materials. These facilities are essential for materials synthesization.

Thermal evaporation, DC and RF-Sputtering units are required for the growth of thin films. To set up this facilities, two chambers with ultra high vacuum systems are required. Using these facilities one can grow the thin films and nano-structure on desirable substrates. From devices point of view these facilities are required, which give the training of vacuum technology, thin film growth processes and device fabrications.

Annexure-B

Chemical Laboratory

Most of the samples will be processed in chemical lab. Chemical lab require Low Speed diamond saw which is a precision sectioning saw designed for cutting all types of materials with little or no deformation. Chemical laboratory is useful for sythesization of nano particles using sol-gel method and Co-precipitation techniques. In this laboratory the essential items are chemicals in oxide and acetate form, acids, glass wares, centrifuge, weighing machine and ovens. To prepare the nano materials using bottoms up technique, one has to perform controlled reaction of materials to get the proper phase and the size of the particles. The particle size distribution in this technique is very sharp.

Annexure-C

THERMAL ANALYSIS LAB

The diiferent phases are formed at diiferent temperatures e.g. at certain temperature materials aborb oxygen, some other metastable phases are possibly formed. To do such type of analysis one has to perform thermo-gravimetric analysis using TGA/DTA techniques. This lab will consist of TGA/DTA set up.

a) Thermogravimetric Analyzer (TGA) measures weight changes in materials to determine composition, thermal stability and related phenomena. It operates from room temperature to 1000 degree centigrade in many different atmospheres.

b) Differential Scanning Calorimeter (DSC) with modulated capability can be used in the temperature range of -180 degrees centigrade to 600 degrees centigrade to measure the heat flow and temperatures associated with transitions. The material is subjected to a sinusoidal temperature ramp, superimposed on the linear temperature ramp in order to provide information about reversing and non reversing characteristics of the thermal events.

Annexure-D

Electrical Transport Lab

The electrical transport laboratory will be useful to study the I-V, C-V, resistivity as afunction of temperature for semi-conducting systems. This laboratory consists of Kithely nano-voltmeter, Kitheley current source, Lakeshore temperature controller, LCR meter and Closed cycle refrigerator.

Annexure-E

PHOTOLUMINESCENCE LAB

Photoluminescence (PL) spectroscopy has been widely used to measure the optoelectronic properties of nanomaterials. The device programs in the centre will be mainly focussed on semiconductor optoelectronic / photonic devices. PL spectroscopy aids in the determination of energy band gap and defect states in the energy band of semiconducting specimens. This tool also assists in analyzing quantum confinement effects on nanomaterials. In the bulk materials the electronic structure of the materials form band structure, whereas in the atomic or molecular form the have energy levels . When the materials size is reducing the bands are confined to unique levels which is known as quantum confinement. In the optical materials, which exhibit photo-luminescence, their characteristics of luminescence is changing when they go from bulk to nano materials, which has applications in various devices such as lasers, LED's and communications. To understand the luminescence properties photo-luminescence lab consist of PL system is required.

Annexure-F

FTIR Laboratory

Infrared spectroscopy is an important technique in organic chemistry and other disciplines. It is an easy way to identify the presence of certain functional groups in a molecule. Also, one can use the unique collection of absorption bands to confirm the identity of a pure compound or to detect the presence of specific impurities. To study the molecular structure of nano particles, FTIR is useful. This technique is also being employed to study the molecular symmetry in complex materials.

Annexure-G

Computer Laboratory

To analyze the experimental data, one special computer lab (Numerical Analysis Lab) is essential. In this lab various packages for data analysis will be installed to analyze the XRD, XRF, FTIR, results. The lab will be equipped with quadra-2 intel core processor multi-user server loaded with softwares such as RITVELD and related for XRD data analysis, Mathematica 7, SYSTAT 13, MAPLE, SIGMAPLOT 11, PEARL, ORIGIN etc.

Annexure – VII
Central Computer Centre

	Activities	Amount (In Crores)
1.	**Infrastructure improvement for teaching, training and learning through :**	
	Establishment /Upgradation of Central Computer Center (a) Repair of works of existing academic Building Computer Centre (b) New equipment & furniture (Computers, UPS, printers, Scanners, Computer tables and chairs) (c) Campus-wide Networking and enhancing internet facility (Implementation of Wi-Fi and enhancing internet facility) (d) Software Adobe CS Master Collec, Antivirus, Internet Mgmt S/w, Matlab software (e) Maintenance of furniture, equipment, Campus wide networking & softwares (AMC),	0.0075 0.2750 0.2575 0.1000 0.1000
4.	**Faculty and staff Development** (including faculty qualification upgradation, pedagogical training, and organising/participation of faculty in workshops, seminars and conferences) for improved competence based on TNA	0.0040
10	**Incremental Operating Cost** Expenditure on participation by faculty in seminar, conferences, workshops etc.,	0.0060
TOTAL		**0.7500**

Annexure – VIII

Number of Books and Journals available in Central Library (Trade wise):

Sr. No.	Course(s)	Number of Titles of the books/ ref books	Number of Volumes	Journals Indian /International	e-Journals	UG books	PG books
1.	Mechanical	1276	5472	07	SD(ME):30-UG	4925	547
2.	CSE&IT	2068	5830	04	IEL online 241	5247	583
3.	ECE	1385	3890	06		3501	389
4.	Chemical Engg.	1656	3200	06		3200	
5.	Bio-Tech.	0060	0293	05		0293	
6.	Applied Sciences	1243	2908	18		2908	
7.	Ref./books & Others		3533	34		3533	
	Total		22508	80			

	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015
1.Subscription of print journals	-	1.1 l	1.20	1.30	1.40
2. Subscription of e-Journals	-				
a) IEL online		3.90	3.95	4.00	4.05
b). SD (ME – 55)		2.95	3.00	3.05	3.10
c) SD (Che & Bio Tech)		3.55	3.60	3.65	3.70
d) Membership of INDEST - AICTE		0.02	0.02	0.02	0.02
3. Procurement of print Books/e-books	-	15.50	8.75	10.00	8.50
4. Expenditure for digitization of library books	-	0.50	0.60	0.70	0.80
5. Establishment of CD Bank	-	0.50	0.60	0.70	0.80
6. Automation of lib. Books	-	0.50	0.60	0.70	0.80
7. Photostat machine with networking	-	-	-	-	-
8. Furniture	-	1.00	1.00	1.00	1.00
9. Faculty and staff Development	-	0.10	0.10	0.10	0.10
	-	**24.63**	**23.42**	**20.22**	**24.27**

Annexure – IX

Central Workshop

Year	Name of Equipment	Quantity	Amount (in lacs)	Shop
2011-12	Mechanical Power Press capacity 10 Ton	01	1.00	Forging shop
	Grooving Machine	01	0.35	Sheet Metal shop
	Jig Saw	01	0.12	Sheet Metal shop
	Wood Carving tool Kit	01	0.08	Carpentary Shop
	CNC Drilling and tapping Machine	01	3.45	Fitting Shop
	Overhead projector	01	1.50	Teaching Aid
2012-13	Cabin Aluminium	5	0.70 x 5 = 3.50	Modernisation of shops
	CNC mechanical press machine for forging process	01	5.00	Smithy Shop
2013-14	Seam Welding machine all standard accessories	01	2.30	Welding Shop
	Plasma Welding and cutting machine with all standard accessories	01	2.70	Welding shop
2014-15	Pneumatic sand moulding machine with compressor	01	3.50	Foundary shop
	Sand Aerator mobile type	01	1.00	Foundary shop
	Shatter index Tester	01	0.50	Foundary shop

Annexure - X

(Training & Placement Cell)

1(v**):Procurement Of Furniture:**

Sr.No	Category of Expenditure	Fund Required (In lacs)
1	Furniture(office Chairs, Tables,Curtains, etc.)	6 Lacs.

1(vi): Upgradation of Central and Departmental Computer Centers/office

Sr.No	Category of Expenditure	Fund Required (In lacs)
1	Printers, Computers, & and other Electronics items etc.	6 Lacs.

Details Of Major Items Required Under Furniture/Electronic Items:

Sr.No	Name Of Room	Item Requred	Unit Price(Rs)	Qt. Required	Total Cost(Rs
1.	T & Placement Cell	LCD Projector	1.5 Lac	01	1.5 Lac
2.	T & Placement Cell	Audio System with Collar Mice,& Speaker	100000/-	01	01 Lac
3.	T & Placement Cell	White Board	7000/-	03	21000
4.	T & Placement Cell	Curtain	15000	02	30000
5	T & Placement Cell	Laptop	40000	06	240000
6	T & Placement Cell	Sofa Set(7 Seater)	30000	01	30000
7	T & Placement Cell	Center Table	7000	01	7000
8	T & Placement Cell	Office Table	15000	02	30000
9	T & Placement Cell	Visiting Chairs	3000	20	60000
10	T & Placement Cell	Pen Drive	1000	6	24000
11	T & Placement Cell	Fax Machine	20000	01	20000
12	T & Placement Cell	Scanner	7000	02	14000
13	T & Placement Cell	Almirah	10000	04	40000

14	T & Placement Cell	Book self Almirah	7000	02	14000
15	T & Placement Cell	Printer	10000	02	20000
16	T & Placement Cell	Computer	43000	02	86000
17	T & Placement Cell	Projector Screen /LCD Screen	15000	01	15000
18	T & Placement Cell	Phone Hand Set land line	2000	02	4000
19	T & Placement Cell	AC	25000	02	50000
20	T & Placement Cell	Office Chair	10000	02	20000
21	T & Placement Cell	T & P Mgmt. Software	1 lac	01	01 Lac
22.	T & Placement Cell	Miscellaneous Expd.	1.25 Lac	-	1.25 Lac

1(ix):Refurbishment(minor Civil Works)

Sr.No	Category of Expenditure	Fund Required (In lacs)
1	Minor civil Works	2 Lacs

3.Enhancement Of R & D & Institutional Consultancy Activities

Sr.No	Category of Expenditure	Fund Required (In lacs)
1	Expenditure For Consultancy Assignment ,Travel Cost ,Hospitality & Honorarium Paid to consultant	03 Lacs

4. **Faculty & Staff Development**

Sr.No	Category of Expenditure	Fund Required (In lacs)
1	Training & Participation of Faculty in Workshop, Seminars & Conferences	01 Lacs

5.Enhanced Interaction with Industry:

Sr.No	Category of Expenditure	Fund Required (In lacs)
1	Travel Cost ,Hospitality & honorarium Paid to Industry Personnel for Inviting Expert Lectures, Campus Interviews ,Arranging tutoring by Industry Experts for On- Off Campus Job Interviews	25 Lacs

6.Institutional Management & Capacity Enhancement :

Sr.No	Category of Expenditure	Fund Required (In lacs)
1	Training & Participation of Faculty in Workshop, Seminars & Conferences	01 Lacs

10. Incremental Operating cost:

Sr.No	Category of Expenditure	Fund Required (In lacs)
1	Office Operation including Stationery, Postage, Electronic ,telephone bill etc.	06 Lacs

Annexure - XI

Medical Care Centre

Infrastructure improvements for dispensary

1.(vii) Modernizing and Strengthening of Medical Care Centre (Supporting Department) :

	Dispensary	Name of Equipment	Unit Price (Rs.)	Quantity Required	Total Cost
1	Dispensary	Ambulance	500000	01	500000Lacs
2	Dispensary	ECG machine	90000	01	90000
3	Dispensary	Patient bed	10000	02	10000
4	Dispensary	Mattress	7000	02	7000
5	Dispensary	Oxygen cylinder	3000	1	3000
6	Dispensary	AC Patient Bedroom	30000	1	30000
7	Dispensary	Medicine Purchase	300000	-	300000
8	Dispensary	AutoClave machine	4000	1	4000
9	Dispensary	Autoclave Drum	1000	1	1000
10	Dispensary	Blood sugar test	1000	1	1000

11	Dispensary	ENT Examination kit	1000	1	1000
12	Dispensary	AMBU Bag	3000	1	3000
13	Dispensary	Patient Bed Screen	1000	1	1000
14	Dispensary	BP Apparatus with stand	7000	2	7000
15	Dispensary	Stretcher	1500	1	1500
16	Dispensary	Wheel chair	3000	1	3000
17	Dispensary	Movable OT Light	30000	1	30000
18	Dispensary	Weighing Machine	1500	1	1500
19	Dispensary	Movable Stool	2000	1	2000
20	Dispensary	Glucose Stand	2000	2	2000
21	Dispensary	Bed Side Locker	2000	2	2000