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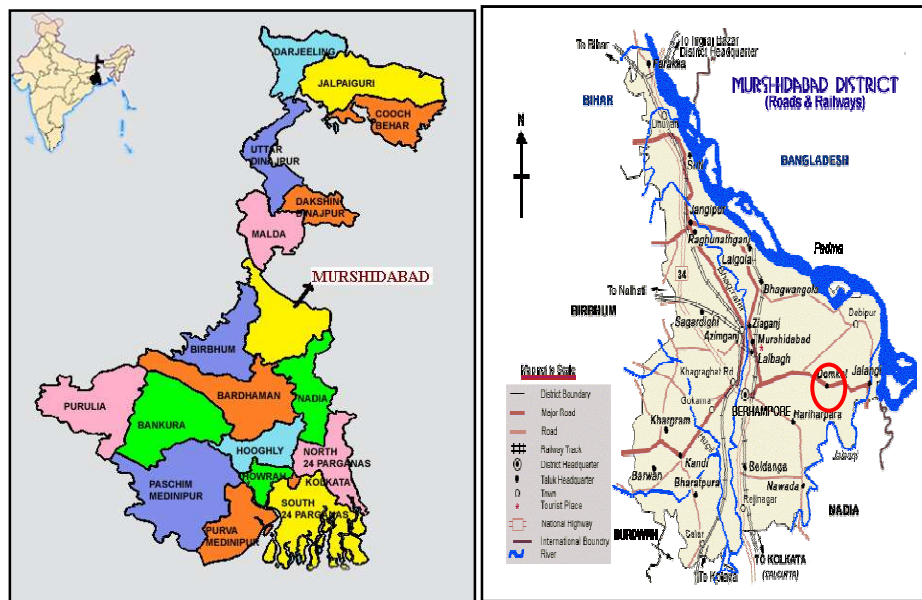
A. PREFACE

Location of the Institution

The Institute is situated in the Educational Complex of Basantapur Education Society (BES) surrounded by lush green and pollution free environment. It is just 2 kms away from the Dumkal Sub-Division town on the Berhampore-Jalangi Main Road. There are direct state and private luxury bus services to Dumkal from Kolkata, Berhampore, Durgapur, Karimpur, Malda, Suri, Bolpur and Sainthia. The nearest railway station is Berhampore Court of Sealdah-Lalgola line and Khagra Ghat Road of Howrah-Malda line. The private bus and trekker services to Dumkal from Berhampore, Jalangi etc are frequent.

The Latitude and Longitude of the Institution are 24° 10' 09" N and 88 ° 53' 09" E.

Maps of India, West Bengal State and Murshidabad District are given below to demonstrate the exact location of the Institute:



Disadvantage of the location

The main disadvantage of the Institute is that, it is situated in a backward village, far from Kolkata. All the educational institutions of the State are concentrated in and around Kolkata. All the resource persons reside there. They do not want to forgo the advantages of Kolkata life. If somebody wants to come, he demands pay higher than that in Kolkata. But the people of the village are poorer than Kolkata. They cannot pay more. They cannot get good teachers. The regulatory bodies prescribe the same norms and standards. The institution in the backward region cannot cope with that. They continue to remain backward. The regional imbalance increases. The institution suffers.

Background history of the region

Once the city of Murshidabad was the capital of Bengal, Bihar and Orissa; and the region was rich in the heritage of handicrafts like silk, ivory and brass. But with the advent of the British rulers this district lost its glory as well as financial and

educational importance. Now Murshidabad District is very backward in education. For example, there is only one Primary School per 1851 people, (whereas there is a Primary School per 852 people in Purulia District, which is also backward in education). What we want to impress upon is that, Murshidabad is very backward in education. 89.75% people live in rural areas of Murshidabad and they are deprived of basic needs like education, health, nutritious food, etc. The number of Secondary Schools, Higher Secondary Schools, and General/Technical colleges are much less than required. There is no University in the district.

This district has the distinction of housing the maximum number of Muslims a district has in India. While India has 14.6% Muslim of its total population, and West Bengal has 25.25% (2001 census), Murshidabad has 63.67% Muslim. In Dumkal Block, their percentage is 88.58. In Basantapur, their percentage is 100. Almost all of them are backward – both educationally and economically.

The Society

Dr Nazrul Islam, B Sc, M A, M B A, Ph D, D Litt, and I P S, established the BES in 1995 under West Bengal Societies Registration Act 1961, vide Registration No S/80709 of 1995-96, for the development of the area through education and allied activities. The initial seed money was the cash component of Rs 1 lakh of his literary award and the royalty of Rs 1.5 lakh of his published books. At that time, about six bighas of land was purchased at a cost of about 1 lakh rupees and a building was constructed at about a cost of 1.5 lakh rupees. With this amount, BES established a Primary School in 1996. As the time passes, with a quest to achieve a growth, the small BES of yesteryears has now been transformed into a bigger society well-known for academic excellence offering Kindergarten to Postgraduate Programmes in various educational disciplines.

For the development of the area through education, the BES has established the following educational institutions:

Sl No	Name of the Institutions	Estd in
1	Basantapur Primary School	1996
2	Dumkal College, Basantapur	1999
3	Dumkal STVT	2000
4	Dumkal Institute for Engineering & Technology	2001
5	Dumkal Polytechnic	2002
6	Model School	2002
7	Model Nursery & Primary School	2003
8	Model PPTI	2003
9	School of Language	2004
10	Career Guidance Circle	2005
11	Education College	2007

In 2007, BES procured land and submitted prayer to the Government for the establishment of a University. It has also procured land for the establishment of a Medical College.

The Institute:

Dumkal Institute of Engineering & Technology (DIET) is a daughter institute of BES. It is a self-financing institute established in the year 2001.

This Institution is approved by the All India Council for Technical Education (AICTE), New Delhi and affiliated to West Bengal University of Technology (WBUT), Kolkata.

Following is the approved courses conducted by the Institution along with its year of introduction:

Sl No	Name of the Course	UG/PG	Year of introduction
1	Computer Science & Engineering.	UG	2001
2	Information Technology	UG	2001
3	Electronics & Communication Engineering	UG	2001
4	Applied Electronics & Instrumentation Engg	UG	2001
5	Electrical Engineering	UG	2006
6	Mechanical Engineering	UG	2011
7	Civil Engineering	UG	2012
8	Electronics & Communication Engineering	PG	2011

(Prof Dr C Datta)
Principal

B. EXECUTIVE SUMMARY

In this Executive Summary, the Institute includes ‘Brief summary of criterion wise SSR’ and ‘SWOC Analysis’.

Brief summary of criterion wise SSR

Criterion I: Curricular Aspects

Dumkal Institute of Engineering & Technology (DIET) is affiliated to West Bengal University of Technology (WBUT). Curriculum for B Tech and M Tech courses are framed by WBUT and followed by the Institute. The Institute takes care to provide all infrastructural facilities like, proper procurement and maintenance of laboratory equipment, library books and qualified faculty members for effective implementation of the curriculum. The Institute also provides some classroom with ICT facilities. Faculty members are developed by refresher courses, orientation programmes and encouraging in research activities. Academic Calendar, paper-code-wise Logbook, Lesson Plan and Time Table are framed in each semester for proper implementation of the curriculum. Industrial visits and trainings are arranged on regular basis. Special professional lectures are arranged as per students’ need.

Various Professional Core subjects and two types of elective papers viz, Professional Elective and Free Elective are offered by the Institute under the guidelines of affiliating WBUT. In addition to class room teaching, special skill development programmes/ workshops/ seminars, special coaching are arranged for creating aspiration for higher studies and better employability. Both lateral and vertical mobility within and across programmes and courses are allowed. The lateral entry admission to B Tech 2nd year is permissible in 20% of seats of the approved intake. A student with at least CGPA 8.5 in B Tech first year who wishes to change his/her present course is allowed to any other Engineering and Technology courses in 2nd year provided seats are available. The course curricula of the affiliating WBUT incorporate subjects which help the students for employability and acquiring entrepreneurship skills. Debates, Technical Quiz, Ex-tempore, and Brain Storming etc are organized to make the students to express their ideas fluently.

The faculty members of the Institute guide the students to prepare the models, undergo project works and publish papers in technical journals. The Institute encourages the students and faculty members to attend seminars/workshops/conferences on new and promising technologies. Institution motivates the students in participating in different industrial training programmes which are “under curriculum” and “beyond curriculum”.

Feedback from students, teachers, other stakeholders and specific suggestions regarding syllabus are received, analysed and conveyed to the affiliating WBUT for consideration in its Board of Studies Meetings through a workshop with the members of the affiliated colleges.

Criterion II: Teaching-Learning and Evaluation

The Institute has implemented a well organised and systematic teaching, learning, evaluation and monitoring processes in order to foster virtues of competencies, self-confidence, skills and academic excellence in the student. Admission to B Tech is purely based on JEE rank (West Bengal Joint Entrance Examination (WBJEEM)/All India Entrance Examination (JEE Main)/ Joint Entrance Lateral Entry (JELET)) followed by a centralised online counselling through the West Bengal Joint Entrance Examinations Board (WBJEEB). Admission to M Tech programme are made through Post Graduate Entrance Test (PGET) conducted by affiliating West Bengal University of technology (WBUT) followed by a centralized counselling conducted by the same WBUT, where due weight-age is given to valid GATE score and previous academic performance for preparing the merit list. The admission procedure is cent percent transparent. This Institute does not offer management quota seats to the students. The college maintains a website and publishes Admission Notification in leading daily newspapers.

The faculty members of the Institution prepare Academic Calendar, Lesson Plan, Logbook and Course Material well in advance of the commencement of the new semester. The Institution is committed to make the teaching-learning and assessment student-centric. The faculty members are well qualified, committed, competent, sincere & dedicated. The faculty members adopt structured strategies to the varied needs of slow, average and advanced learners. The Institution also sensitizes the students to the issues of social, humanitarian and environmental concern. The NSS unit of the Institution plays a vital role in bringing awareness on different issues of the society by interacting with surrounding villagers.

In addition to the conventional chalk and blackboard system, the faculty members use OPH/LCD projectors and power point presentation to make the teaching-learning more interesting and motivating. The members of IQAC, Principal, Vice Principal, Registrar and HODs monitor and evaluate the teaching-learning process. Feedback on the aspects of Teaching-Learning Process and the faculty members' performance/ punctuality/ attendance/ ethical conduct etc is collected from the students once in a semester for evaluation and its corrective actions. The Institute collects self-appraisal report once in a year from the faculty members. The Institute is progressing in Research day by day. As there is a scarcity of senior and well-qualified faculty, particularly doctorates, the Institute focused a lot to develop its own

resources. The institution encourages the faculty members for Innovative Research and Collaboration, and to attend/organise seminars/workshops/conferences on new and promising technologies. Students are encouraged to use the advanced and state-of-the-art laboratories and to improve their research aptitude. Leave and financial support are extended to the faculty members in this respect. A good number of faculty members are engaged in Research and Publication. Two of the faculty members recently completed their Ph D programmes; one has submitted his thesis and another has prepared his thesis for submission in November 2014.

The Training and Placement Cell conducts skill development programme like Soft-Skill (Aptitude, HR, GD, PI etc.), English Communication Skill etc. required for employability enhancement. Numbers of industrial houses conduct Campus Placements for our students. It is great pleasure for this Institution that many of its passed out students have undertaken higher education, and are well placed in leading Multi National Companies and reputed organizations in India and abroad.

Criterion III: Research, Consultancy and Extension

The Institute focuses deeply towards research and allied activities.

The process of promoting healthy research culture among Faculty Members and Students is accomplished by foundation of equipped research center/Lab, arrangements of different technical seminars, workshops and training sessions to enhance the knowledge of the students regarding various recent technologies and emerging fields of research, financial support and sabbatical leave provided by this institute for research.

The process of resource Mobilization for research is achieved by formation of a good research committee which supervises the entire research activities carried out by the students, as well as the faculty members, financing various research works carried out by students and faculty members, recommendation provided by this committee and its impact.

Research facilities are established through providing high speed bandwidth, state of the art lab, and collaborative research work. Faculty Members and Students are awarded for their distinguished work so that others can get motivated towards research. This institute also outreached its research outcome resulting in consultancy which yielded some fruits which were beneficial to the industry as well as for our students.

This institution extended its activities by binding MoUs' with various industries and organizations that eventually lead to developing sensitivities towards community issues. The Institute also collaborated with

industries/organisations that resulted in formal MoUs' for research activities, student on job training programmes, faculty exchange programmes etc.

Criterion IV: Infrastructure and Learning Resources

The Institute has adequate infrastructure and learning resources. The Institute provides necessary facilities for laboratories (furniture, fixtures, equipments and good laboratory practices). The institution has adequate facilities for general computer education of students. Infrastructural facilities are augmented from time to time. Infrastructure facilities are being utilised optimally. Additional facilities for sports and extra-curricular activities (gymnasium, auditorium etc.) are provided. Health services for students, teaching and non-teaching employees are provided. The institute has facilities for physically-disabled students. The library has adequate physical facilities such as reading room, reprography, and internet. Number of books in the Central Library is adequate for students. The library is stocked with adequate number of journals (national and international) and other library resources (i.e. CDs/ cassettes, etc.). Library resources are augmented every year with newer editions and titles. The library operations (issue of books, getting the necessary references, etc) are effective and user-friendly. The Library Advisory Committee is responsible for the effective functioning of the library. The library collects feedback from users and incorporates the suggestions for its enhanced functioning. The library is computerised and students can access library data online. The Institute frequently upgrades its IT facility and has latest computing facilities-hardware and software. The faculty members are provided with the requisite facilities for preparation of computer aided teaching learning material. The Institute is connected with the National Knowledge Network and other such facilities. Budget provision is made for purchase, upgrading and maintenance of computers. The Institute has a budget for maintenance of the facilities available on the campus-physical facilities and academic support facilities. There are established procedures and systems for maintaining and utilising physical and academic support facilities-library, sports complexes, and computer. The funds allocated for maintenance of infrastructure are utilised in total for the planned activities.

Criterion V: Student Support and Progression

The Institute has adequate facilities for student support and progression. The Institute has well-equipped system for student development and progression. Students are being provided with the free studentships, scholarships and different welfare measures for continuing their education, if they do face any difficulty during their study. The Institute maintains its website and all necessary information are hoisted in website. The students regularly participate in the co-curricular, extracurricular activities. Training and placement cell has well organised system for the students. The training and

placement cell monitors the students' training records from the 3rd year onwards and follows the trends of student's interest and working areas. The Institute offers student progression properly. The Institute has an appointed Medical officer in the campus. The students are exposed to the industries through various industrial visits and educational fairs. The Institute has a well structured mechanism for grievance redressal. Till date no cases of ragging or sexual harassment have been reported.

Institute provides extra coaching classes, aptitude classes, grooming sessions, managerial skills, and soft skill techniques to the students on regular basis starting from 3rd year onwards. Through the process of career counselling students are being marked out who are at the risk of failure or drop out, these students are counselled further to overcome the problem and get success in the future. All the departments of this Institute maintains the track record of each and every student right from the time of admission and even the back record of the student right from class X onwards and assess and guide them in a proper manner to choose a right profession. The Institute keeps record of the pass out candidates and contacts them on yearly basis of their current position / designation / profession.

Alumni contacts are kept regularly on yearly basis through our website, social networking sites etc. Alumni are invited on the education fairs, social meets, reunion, seminars, etc. Students are encouraged to take part in the cultural activities, game and sports, presentation of wall magazines, student's magazines, etc. The Institute involves the student's in the administrative and academic bodies. In this way students actively participate in the college decorum. Time to time students' feedback are collected and measures are taken in order to resolve if any issue arises regarding any activity of the Institute.

Criterion VI: Governance and Leadership & Management

The Institute is run with Vision, Mission and Quality Policy in conformity with the objectives of the higher education with the required quality and excellence. The Institute practices the policy of decentralisation and participative management. The Institute provides leadership to maintain the standard of quality. It provides the infrastructural facilities, lab-experimental set-ups, books and journals, and quality faculty conducive to teaching-learning process. The Institute formulates its strategic planning with the interaction of the various stakeholders and evolves a mechanism to monitor and evaluate the policy and strategic planning with a view to grooming leaderships. It collects feedbacks and information and evaluates these to enhance the quality of education.

The Institute has developed a long term perspective plan for the growth and strategy development and maintained deployment process to implement the perspective plan. The Institute has an organisation structure and all its major operation and activities are defined in the structure. The Institute has developed a mechanism to obtain, and analyse feedback from its stakeholders. The action plans and schedules are developed to maintain quality policy of the Institute. The Institute has a grievance redressal cell to whom the stakeholders file complaints/grievances. These are settled within a time frame.

The Institute has a transparent policy and system of recruitment of employees adhering to recruitment policy of the AICTE and state government. The Institute provides welfare benefits to its faculty and non-teaching staff. The performances of the faculty and staffs are reviewed based on the self-appraisal support to award increment, promotion and honours. The institute organises training for the faculty and staff for their professional development. Staff development programme is in place to upgrade their academic qualifications. Budgetary allocation and sanction are obtained to meet the activities of the programme effectively.

The Institute provides limited financial resources to maintain academic and administrative activities. The Institute monitors the financial management practices and conducts regular internal and external audit to maintain financial health of the institute. The Institute takes efforts and initiatives for mobilisation of financial resources.

The Institute has an Internal Quality Assurance Cell (IQAC) to maintain effective and efficient quality management and enhancement systems. The Institute conducts academic audit in a regular way and reviews teaching learning process, structure, methodologies of operation and learning outcome in a semester. There are external members in the Internal Quality Assurance Cell (IQAC) who have contributed significantly in the functioning of the IQAC. The IQAC plays a significant role to institutionalising quality assurance strategies and processes. The institute organises training for the employers to develop skills and to maintain quality standard and parameters of the academic and administrative activities. The institute encourages autonomy to its academic departments.

Criterion VII - Innovations and Best Practices

This Institute takes up issues of climate change and environment. So, environment friendly practices are taken up like energy conservation, rain water harvesting, waste recycling and carbon neutralisation etc. The Institute campus is full of plants and trees. There is a vast flower garden inside the campus.

Real innovations are valued and promoted for improving quality of teaching-learning process. Technical and Engineering Model Developments and Coding Contest are organised. In the “Tech-Festival and Model Competition”, all the departments participated and the focus of the competition was on the following topics:

- Programming & Debugging
- Robotics Pick 'n' Place
- Robo Race

This Institute, among many other practices, mentions two best practices as follows:

- 1) Best Practice 1: From Lab to Land. The faculty and students of the Institute organises ‘Education Fair’. In it, the knowledge learnt in laboratory is lucidly demonstrated to the members of the community. The fair is a testing ground of their knowledge and skill.
- 2) Best Practice 2: Development of Semester-wise and Lecture-wise courseware for all streams. The semester wise and lecture wise course ware are prepared so that the students may use the study materials and enhance their competency and take advantage of better preparation for semester, final examinations, and placement.

SWOC Analysis and Future Plan

Strength

- (1) The Institute has support of the local community.
- (2) The parent BES is committed to provide quality education.
- (3) The Institute has adequate infrastructure for good sustainability. There is a huge scope for horizontal and vertical expansion of the building for future development. There is no scarcity of land in the immediate surroundings also.
- (4) The campus is equipped with state-of-the-art Laboratories, Spacious Class Rooms, Language lab, Seminar Hall, Gymnasium, Full time doctor, Separate Boys’ and Girls’ hostels, and Huge Playground. Some of the class rooms are equipped with ICT.
- (5) WI-FI enabled high speed (16 Mbps) Internet facility in Campus and Hostels.
- (6) WBUT e-learning Programme EDUSAT has been established to share web lectures.
- (7) Active NSS Unit is there to make awareness programmes among the neighbouring locality regarding health, hygiene and eradication of superstition.

- (8) Faculty members are highly qualified, committed, competent, sincere & dedicated. Teachers are encouraged to enhance their academic qualification and pursue Research. Faculty Members interested in career advancement are offered full support by the Institution.
- (9) There is very healthy and congenial students-teachers relationship.
- (10) The Principal/Vice Principal/Registrar of the Institute are easily accessible to discuss problems, grievances etc.
- (11) There are Positive Collective Leadership, Greater Sense of Responsibility and Effective Teamwork with feedback oriented performance appraisal.
- (12) There is Successful and Effective Teaching-Learning Process. Additional importance is given on efficient and interactive learning in the teaching-learning process with teachers as facilitators and mentors.
- (13) Remedial coaching is offered for nurturing weaker students.
- (14) Strong Placement Cell facilitates Campus recruitment to most of the students. A few are placed by direct appointment immediately prior to and after completion of the course.
- (15) Soft Skill and English Communication Skill Development Programmes required for employability enhancement and improvement of language competence of the students are organised.
- (16) The campus is completely ragging-free environment.
- (17) The faculty of the Institute are flexible and responsive to student needs.

Weakness

- (1) There is a scarcity of senior and well-qualified faculty, particularly doctorates.
- (2) Lack of scope for faculty exchange and student exchange programmes.
- (3) Low revenue generation through Testing, Consultancy, Industry Institute Partnership and *Undergoing* Research Projects especially from the funding agencies like AICTE, DST, UGC, DRDO, ISRO, MHRD etc.
- (4) Research and development, consultancy and extension activities with National agencies and Industries are to be strengthened.
- (5) Industry-Institution relations are below the level of expectation due to lack of industries nearby.
- (6) Institution is located in rural, socio-economically backward area.

Opportunity

- (1) The demand for reputed technical institutes is on the rise among the students and guardians.
- (2) In Murshidabad and neighbouring districts, there is a very few technical institutes with respect to the total population of the district.

- (3) There is a dire need of professionals, technicians in the Country.
- (4) The Institute may apply for more consultancy and research funds from funding agencies like AICTE, UGC, DST, CSIR, ISRO, DRDO, MHRD etc.
- (5) The Institute may introduce new Postgraduate programmes and enhancement of interdisciplinary research to meet the rising needs.
- (6) The Institute can exchange programmes with other academic institutions and universities to promote Academic Partnership.
- (7) The Institute may strengthen bond between current students and alumni in key positions to improve community links.
- (8) The Institute may form Academic partnership with other institutions and schools.
- (9) There is cope for technology development for Agro and Rural industries of the district.

Challenge

- (1) The Institute is not getting students to fill up the approved intake capacity. It is resulting in the financial deficit.
- (2) Mushrooming of private engineering colleges in the state/country and inclination of students to opt admission to the City Based Colleges even in a newly established college results large number of seats remaining vacant.
- (3) Sudden expansion of technical education has resulted decline in the degree of excellence. A faculty member with research experience, getting full scale of pay and engaged in teaching and research are moving to other private institutes where they are paid substantially better, although the new institutions may not have the right environment to promote research. Newly established self-financed institutions sometimes pay salary beyond norms and standard. It hampers the teaching-learning process and hindrances research progress. It causes a huge dearth in availability of quality students. As a result students with below-the-average merit and indifferent to studies get access to technical education.
- (4) Poor English language skills of students even having sound technical knowledge may lead to a challenge to face job market and develop global competencies.
- (5) Global recession affects the higher technical education.
- (6) A foreign brand still allures a lot of Indian people. They believe that all foreign universities or institutions are highly advanced in all respect and parents try to send their wards abroad for higher education. A portion of such Indian students venturing out for abroad every year for getting enrolled in foreign colleges/universities and it causes a competition between foreign colleges/universities and Indian colleges/universities. It is a threat.

- (7) Due to prolonged delay in holding the centralized counselling for admission to B Tech programmes, many quality students opt for admission to the general degree courses in the state and to the engineering colleges in other States/Country.

Future plan

- The Institute will augment Faculty Exchange Programmes in collaboration with other Institutions/Universities.
- The Institute will encourage its faculty members and students to publish articles in International/National journals and publish books.
- The Institute will produce more e-learning contents for students' independent learning.
- Further collaborative research work is to be initiated with research institutes of international and national repute.
- The Institute will try to introduce M Tech courses in EE, ME, CSE and CE.
- The Institute will try to enhance the Industry-Academia relationship.
- The Institute will strengthen Alumni Association.

C : PREPARATION OF SELF-STUDY REPORT
Profile of the Institute

1. Name and Address of the College:

Name :	DUMKAL INSTITUTE OF ENGINEERING & TECHNOLOGY	
Address :	PO BASANTAPUR, DIST MURSHIDABAD	
City :	Pin : 742406	State : West Bengal
Website :	www.besdiet.org	

2. For communication:

Designation	Name	Telephone	Mobile	Fax	Email
Principal	Prof Dr C Datta	O: 03481-231155	09007699996	03481-231188	chakradhardatta@gmail.com
Vice Principal & Steering Committee Co-coordinator	Dr P J Pal	O: 03481-231144 R: :	09434641986	03481-231188	pal.pallav@gmail.com
Steering Committee Coordinator	B Hossain	O: 03481-230033 R:	9434441965	03481-231188	registrar@besdiet.org

3. Status of the Institution:

- Affiliated College ☒
 Constituent College ☐
 Any other (specify) ☐

4. Type of Institution:

- a. By Gender
 i. For Men ☐
 ii. For Women ☐
 iii. Co-education ☒

- b. By Shift
- i. Regular ☒
 - ii. Day ☐
 - iii. Evening ☐

5. It is a recognized minority institution?

- Yes ☐
- No ☒

If yes specify the minority status (Religious/linguistic/ any other) and provide documentary evidence.

6. Sources of funding:

- Government ☐
- Grant-in-aid ☐
- Self-financing ☒
- Any other ☐

7. a. Date of establishment of the college: 20/04/2001

b. University to which the college is affiliated/or which governs the college (If it is a constituent college)

WEST BENGAL UNIVERSITY OF TECHNOLOGY

c. Details of UGC recognition: In the process of application

Under Section	Date, Month & Year (dd-mm-yyyy)	Remarks(If any)
i. 2 (f)	N.A.	
ii. 12 (B)	N.A.	

(Enclose the Certificate of recognition u/s 2 (f) and 12 (B) of the UGC Act)

d. Details of recognition/approval by statutory/regulatory bodies other than UGC (~~AICTE, NCTE, MCI, DCI, PCI, RCI~~ etc.)

Under Section/ clause	Recognition/Approval details Institution/Department Programme	Day, Month and Year (dd-mm-yyyy)	Validity	Remarks
1.4.3 clause 10(k)	F.No:750-80-027(NDEG)/ET/2001	20-04-2001	NA	Viability of Institution
1.4.3 clause 10(k)	F.No:750-80-027(NDEG)/ET/2001	28-06-2001	2001-2002	Approval
1.4.3 clause 10(k)	F.No:750-80-027(NDEG)/ET/2001	26-05-2006	2006-2007	Approval
1.4.3 clause 10(k)	F.No:Eastern/1-410861241/2011/EOA	01-09-2011	2011-2012	Approval
1.4.3 clause 10(k)	F.No:Eastern/1-693688931/2012/EOA	10-05-2012	2012-2013	Approval
1.4.3 clause 10(k)	F.No:Eastern/1-410861241/2011/EOA	01-09-2011	2011-2012	Approval

(Enclose the recognition/approval letter)

8. Does the affiliating university Act provide for conferment of autonomy (as recognized by the UGC), on its affiliated colleges?

Yes ☐

No ☒

If yes, has the College applied for availing the autonomous status?

Yes ☐

No ☐

9. Is the college recognised

- a. by UGC as a College with Potential for Excellence (CPE)?

Yes ☐

No ☒

If yes, date of recognition: (dd/mm/yyyy)

- b. for its performance by any other governmental agency?

Yes ☐

No ☒

If yes, Name of the agency: and

Date of recognition: (dd/mm/yyyy)

10. Location of the campus and area in sq.mts:

Location *	Rural
Campus area in sq. mts.	41520.70
Built up area in sq. mts.	28074.00

(* Urban, Semi-urban, Rural, Tribal, Hilly Area, Any others specify)

11. Facilities available on the campus (Tick the available facility and provide numbers or other details at appropriate places) or in case the institute has an agreement with other agencies in using any of the listed facilities provide information on the facilities covered under the agreement.

• Auditorium/seminar complex with infrastructural facilities Yes ☒ No ☐

• Sports facilities

* Play ground Yes ☒ No ☐

* Swimming pool Yes ☐ No ☒

* Gymnasium Yes ☒ No ☐

• Hostel

* Boys' hostel

i. Number of hostels

03

ii. Number of inmates

392

iii. Facilities (mention available facilities): Wi-Fi, Games and Sports, Newspaper, Cable TV, Play ground, Common Room, Dinning

* Girls' hostel

i. Number of hostels

01

ii. Number of inmates

36

iii. Facilities (mention available facilities): Wi-Fi, Games and Sports, Newspaper, Cable TV, Play ground, Common Room, Dinning

* Working women's hostel

i. Number of inmates

Nil

ii. Facilities (mention available facilities) Board and lodging, Internet Facility

- Residential facilities for teaching and non-teaching staff (give numbers available — cadre wise):

Some faculty members stay in Hostel and society Guest House.

- Cafeteria — Yes ☒ No ☐
- Health centre – Yes ☒ No ☐

First aid, Inpatient, Outpatient, Emergency care facility,
Ambulance: First aid, Doctor, Ambulance

Health centre staff –

Qualified doctor	Full time	<input checked="" type="checkbox"/>	Part-time	<input type="checkbox"/>
Qualified Nurse	Full time	<input type="checkbox"/>	Part –time	<input checked="" type="checkbox"/>

- Facilities like banking, post office, book shops: Yes ☒ No ☐
- Transport facilities to cater to the needs of students and staff: Yes ☐ No ☒
- Animal house: No
- Biological waste disposal : No
- Generator or other facility for management/regulation of electricity and voltage: Yes
- Solid waste management facility : Yes
- Waste water management : No
- Water harvesting : No

12. Details of programmes offered by the college (Give data for current academic year)

Sl. No.	Programme Level	Name of the Programme	Duration	Entry Qualification	Medium of instruction	Sanctioned / approved	No. of students admitted
1	Under-Graduate	B TECH	4yrs	10+2 & equivalent	English	420	44+69 #

2	Post-Graduate	M TECH	2 yrs	B TECH & equivalent	English	18	03
3	Integrated Programme s PG	NA	NA	NA	NA	NA	NA
4	Ph.D.	NA	NA	NA	NA	NA	NA
5	M.Phil.	NA	NA	NA	NA	NA	NA
6	Ph.D	NA	NA	NA	NA	NA	NA
7	Certificat e courses	NA	NA	NA	NA	NA	NA
8	UG Diploma	NA	NA	NA	NA	NA	NA
9	PG Diploma	NA	NA	NA	NA	NA	NA
10	Any Other (specify and provide details)	NA	NA	NA	NA	NA	NA

(# General entry + Lateral entry admitted students)

13. Does the college offer self-financed Programmes?

Yes ☒ No ☐

If yes, how many?

7(UG) & 1(PG)#

All courses offered by the Institution are self-financed.

14. New programmes introduced in the college during the last five years if any?

Yes	✓	No		Number	2 UG (ME, CE) 1 PG (M Tech in ECE)
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15. List the departments: (respond if applicable only and do not list facilities like Library, Physical Education as departments, unless they are also offering academic degree awarding programmes. Similarly, do not list the departments offering common compulsory subjects for all the programmes like English, regional languages etc.)

Faculty	Departments (eg. Physics, Botany, History etc.)	UG	PG	Research
Science	NA	NA	NA	NA
Arts	NA	NA	NA	NA
Commerce	NA	NA	NA	NA
Any Other (Specify)	I. Computer Science & Engineering II. Information Technology III. Electronics & Comm. Engg IV. Applied Electronics & Instrumentation Engg V. Electrical Engineering VI. Mechanical Engineering VII. Civil Engineering	UG UG UG UG UG UG UG	PG	Nil

16. Number of Programmes offered under (Programme means a degree course like BA, BSc, MA, M.Com...)

- a. annual system
- b. semester system
- c. trimester system

17. Number of Programmes wise

- a. Choice Based Credit System
- b. Inter/Multidisciplinary Approach
- c. Any other (specify and provide details)

Specification: As per affiliating WBUT syllabi

18. Does the college offer UG and/or PG programmes in Teacher Education?

Yes ☐ No ☒

If yes,

a. Year of Introduction of the programme(s) (dd/mm/yyyy)

and number of batches that completed the programme

b. NCTE recognition details (if applicable)

Notification No.: N A

Date:

(dd/mm/yyyy) Validity:

.....

c. Is the institution opting for assessment and accreditation of Teacher Education

Programme separately?

Yes ☐ No ☐

19. Does the college offer UG or PG programme in Physical Education?

Yes ☐ No ☒

If yes,

a. Year of Introduction of the programme(s)... ..
(dd/mm/yyyy)

and number of batches that completed the programme

b. NCTE recognition details (if applicable)

Notification No.:

Date: (dd/mm/yyyy)

Validity:.....

c. Is the institution opting for assessment and accreditation of Physical Education Programme separately?

Yes ☐ No ☐

20. Number of teaching and non-teaching positions in the Institution

Positions	Teaching faculty						Non-teaching		Technical staff	
	Professor		Associate Professor		Assistant Professor					
	*M	*F	*M	*F	*M	*F	*	*	*M	*

Sanctioned by the UGC / University / State Government <i>Recruit</i>	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<i>Yet to</i>	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sanctioned by the Management/ society or other authorized	15 #		22 #		78 #		32 #		35 #	
	02	00	04	00	87##	13##	24	05	22	00
<i>Yet to</i>	13		18		00		03		13	

***M-Male *F-Female**

This Institute does not create the post separately for male and female candidates; but it tries to take as many female candidates as possible.

As the Post of Professor and Associate Professor could not be filled up due to non availability of suitable candidates, Assistant Professors were recruited, in excess of their sanctioned strength, against the posts of Professor and Associate Professor.

21. Qualifications of the teaching staff:

Highest qualification	Professor		Associate Professor		*Assistant Professor		Total
	Male	Female	Male	Female	Male	Female	
Permanent teachers							
D.Sc./D.Litt.	00	00	00	00	00	00	00
Ph.D.	02	00	02	00	01	00	05
M.Phil.	00	00	00	00	01	00	01
PG	00	00	02	00	78	10	90
UG	00	00	00	00	07	03	10
Temporary teachers							
Ph.D.	00	00	00	00	00	00	00
M.Phil.	00	00	00	00	00	00	00
PG	00	00	00	00	00	00	00
Part-time teachers							
Ph.D.	00	00	00	00	00	00	00
M.Phil.	00	00	00	00	00	00	00
PG	00	00	00	00	00	00	00

*As the Post of Professor and Associate Professor could not be filled up due to non availability of suitable candidates, Assistant Professors were recruited, in excess of their sanctioned strength, against the posts of Professor and Associate Professor.

Associate Professor.

22. Number of Visiting Faculty /Guest Faculty engaged with the College. 29
23. Furnish the number of the students admitted to the college during the last four academic years.

Categories	Year 1 (2013-14)		Year 2 (2012-13)		Year 3 (2011-12)		Year 4 (2010-11)	
	Male	Female	Male	Female	Male	Female	Male	Female
SC	08	00	24	02	10	01	06	00
ST	00	00	01	00	00	01	01	00
OBC	24	01	37	04	24	05	06	01
General	40	00	137	12	92	04	39	06
Others	00	00	00	00	00	00	00	00

24. Details on students enrollment in the college during the current academic year:

Type of students	UG	PG	M. Phil.	Ph.D.	Total
Students from the same state where the college is	43+69 #	03	NA	NA	46+69 #
Students from other states of India	01+00 #	00	NA	NA	01+00 #
NRI students	NA	NA	NA	NA	NA
Foreign students	NA	NA	NA	NA	NA
Total	44+69 #	03	NA	NA	47+69 #

(# General entry + Lateral entry admitted students)

25. Dropout rate in UG and PG (average of the last two batches)

UG 5.34 PG 5.88

26. Unit Cost of Education

(Unit cost = total annual recurring expenditure (actual) divided by total number of students enrolled)

(a) including the salary component

Rs. 92,253.00

(b) excluding the salary component

Rs. 40,292.00

27. Does the college offer any programmes in distance education mode (DEP)?

Yes ☐ No ☒

If yes,

a) is it a registered centre for offering distance education programmes of another University

Yes ☐ No ☐

b) Name of the University which has granted such registration.

c) Number of programmes offered

d) Programmes carry the recognition of the Distance Education Council.

Yes ☐ No ☐

28. Provide Teacher-student ratio for each of the programme/course offered:
1:15

29. Is the college applying for

Accreditation : Cycle 1 ☒ Cycle 2 ☐ Cycle 3 ☐ Cycle 4 ☐

Re-Assessment: ☐

(Cycle 1 refers to first accreditation and Cycle 2, Cycle 3 and Cycle 4 refers to re- accreditation)

30. Date of accreditation* (applicable for Cycle 2, Cycle 3, Cycle 4 and re-assessment only) : NA

Cycle 1:(dd/mm/yyyy) Accreditation

Outcome/Result...

Cycle 2: N A (dd/mm/yyyy) Accreditation Outcome/Result
N A

Cycle 3: N A (dd/mm/yyyy) Accreditation Outcome/Result
N A

*** *Kindly enclose copy of accreditation certificate(s) and peer team report(s) as an annexure.***

31. Number of working days during the last academic year.

225

32. Number of teaching days during the last academic year
(Teaching days means days on which lectures were engaged excluding the examination days)

173

33. Date of establishment of Internal Quality Assurance Cell (IQAC) IQAC 19.08.2013 (dd/mm/yyyy)

34. Details regarding submission of Annual Quality Assurance Reports (AQAR) to NAAC : NA

AQAR (i) (dd/mm/yyyy)

AQAR (ii) (dd/mm/yyyy)

AQAR (iii) (dd/mm/yyyy)

AQAR (iv) (dd/mm/yyyy)

35. Any other relevant data (not covered above) the college would like to include. (Do not include explanatory/descriptive information)

- The Institute is fully residential.
- The fee structure is lowest in the State.
- The Institute is situated in a district which has the very low literacy rate.
- This Institute intends to spread technical education amongst rural students with a view for uplifting their standard of living and to serve the Nation.
- This Institute is accredited by the Software giant TATA Consultancy Services (TCS).
- The Institute has MoU with Govt. College of Engineering and Textile Technology, Berhampore for the development of academic collaborations together, utilizing expertise and resources of each of the colleges.
- The Institute has MoU with TCS ION which conducts various online examinations.

D: CRITERION-WISE EVALUATION REPORTS

CRITERION I: CURRICULAR ASPECTS

1.1 Curriculum Planning and Implementation

1.1.1 State the vision, mission and objectives of the institution, and describe how these are communicated to the students, teachers, staff and other stakeholders.

Followings are the vision, mission and objectives of the Institute:

Vision:

- To become a World Class Institute Devoted to the Teaching & Research and to Dedicate Ourselves to the “Services of Humanity”.

Mission:

- To Provide Better Quality of Education & Training.
- To Substantially Upgrade our Existing Facilities to Make our “Institutional Development” Sustainable for the New Technological Era.

Objectives:

- To develop the rural areas by spreading Technical Education by highly qualified and dedicated faculty members.
- To make a world class Institute by developing the Laboratories & Library facilities and making a centre of excellence through providing proper education to the students and making an ideal Research Centre.
- To improve the socio-economic status of the neighbouring area through Technical Education and encouraging them for self employment.
- To promote Technical Education among economically and educationally backward classes by providing financial support.
- To make the Institute a guidance & consultancy centre for Technical Education, Research and Development for Industrial and agricultural activities.
- To place the outgoing students to world class industries and research centre.

Communication of Vision and Mission Statement to the Stakeholders:

Vision and Mission of the Institute are displayed in the main entrance gate.

- Posters of the Vision and Mission are displayed in the prominent places of each department.
- It is given in college prospectus, college magazines and in college website.

- Students are communicated in the first Welcome meeting.
- Guardians are communicated during Parents-Teachers meetings.
- Faculty members & staffs are communicated during staff meetings.

1.1.2 How does the institution develop and deploy action plans for effective implementation of the curriculum? Give details of the process and substantiate through specific example(s).

Development and deployment of action plans for effective implementation of the curriculum are, as follows:

- Qualified staffs are recruited through appropriate selection process.
- Staffs are developing through orientation programmes.
- Proper procurement and maintenance of laboratory equipment, library books etc are made in time.

Details of the process

- Academic calendar is prepared at the commencement of each semester.
- Logbook is prepared paper-code-wise.
- Lesson plans are made on approved syllabus of West Bengal University of Technology (WBUT).
- Laboratory manuals are developed and updated as per WBUT syllabus.
- Time Table is constructed for each semester.
- Teaching Learning process is executed and monitored by HODs and Academic Cell.
- Industrial visits and trainings are arranged on regular basis.
- Special professional lectures are arranged as per students' need.

For example, a list of professional lectures is given below:

DATE	NAME	AFFILIATION	TOPIC
30-03-2013	Prof P K Majumdar	Professor, Govt College of Engineering & Textile Technology, Serampore	Success is a choice
30-03-2013	Prof C K Sarkar	Professor, ETCE, Jadavpur University	Advanced CMOS Devices :RF and

			Analog application
30-03-2013	Prof A Ghosal	Professor, Institute of Radio-Physics and Electronics, CU	Diodes, BJTS, FETS and Optoelectronics devices
30-03-2013	Prof P K Ghosh	Professor, ECE Department, Mody University	Multirate Digital signal processing and application
30-03-2013	Dr M Biswas	Associate Professor, ETCE, Jadavpur University .	Recent Advanced Studies Micro-strip Patch Antenna
31-03-2013	Prof Dr R Ghosh	Professor, Electronics and Communication Engg Dept Dumkal	Cryptography Research Direction and recent Trend.
31-03-2013	Mr S S Gupta	Assistant Professor, JIS college of Engineering	Image Processing
31-03-2013	Dr D Mondal	Assistant Professor, Electronics and Communication Engineering Department. NIT Durgapur	Application soft computing Technique
31-03-2013	Mr T Halder	Assistant Professor, GCETT, Berhampore	Smart Grid

1.1.3 What type of support (procedural and practical) do the teachers receive (from the University and/or institution) for effectively translating the curriculum and improving teaching practices?

Support from WBUT:

- Involvement of faculties in workshops/meetings for modification of curriculum undertaken by WBUT.
- Laboratory practice Book provided by WBUT for 1st and 2nd year Curriculum.
- Updated Curriculum is displayed on University website.

Support from the Institute:

- The Institute encourages the faculties to attend workshops, seminars organized by WBUT or others.
- The Institute gives financial help and sabbatical leave support for higher studies, refresher courses and research activities.
- The Institute provides reference books, technical Magazines and Journals to improve teaching practices.
- Teaching Learning process is reviewed through fortnight meeting of Academic Committee followed by implementation of suggestions for improvement of teaching procedure.

1.1.4 Specify the initiatives taken up or contribution made by the institution for effective curriculum delivery and transaction on the Curriculum provided by the affiliating University or other Statutory agency.**Institution contribution for effective curriculum delivery:**

- Provides classrooms, tutorial rooms and laboratory Infrastructure as per the norms of WBUT and AICTE.
- All type of major and minor equipments with software are made available as per curriculum.
- LCD projectors with audio system are provided for smooth running of classes.
- Arrangements are made for expertise lectures on regular basis.
- Circuit Diagram and models are made available to learn basic things as well as to produce new ideas.
- To improve basic concept of programming special training classes are arranged.
- Video lectures are made available to the students from NPTEL (<http://www.nptel.iitm.ac.in>) & MIT Open Courseware (<http://www.ocw.mit.edu/index.htm>).
- Through EDUSAT programme of WBUT is made available for encouraging and helping the students to appear GATE.

1.1.5 How does the institution network and interact with beneficiaries such as industry, research bodies and the university in effective operationalisation of the curriculum?

Institution networks and interacts with beneficiaries such as industry, research bodies and the university, in effective operationalisation of the curriculum in the following ways:

- Arrangement of Industry visit by respective Departments and TPO Cell.
- Interaction of Industrial personnel with the students and faculties.
- Organising workshops and seminars for interaction of faculties and students with researchers and industry experts.

1.1.6 What are the contributions of the institution and/or its staff members to the development of the curriculum by the University? (number of staff members/departments represented on the Board of Studies, student feedback, teacher feedback, stakeholder feedback provided, specific suggestions etc.)

Followings are the contributions of this Institution and its staff members to the development of the curriculum by the affiliating WBUT:

Number of staff members/departments represented on the Board of Studies

The faculty of the Institute are members in the workshops on curriculum, organised by WBUT. No faculty member/department of this Institute is a member of the Board of the Studies of the affiliating WBUT.

Providing of feedback and suggestions

Feedback from students, teachers, other stakeholders and specific suggestions regarding syllabus are received, analysed and conveyed to the affiliating WBUT for consideration in the Board of Studies Meetings of the University, through workshop organised by WBUT.

1.1.7 Does the institution develop curriculum for any of the courses offered (other than those under the purview of the affiliating university) by it? If 'yes', give details on the process ('Needs Assessment', design, development and planning) and the courses for which the curriculum has been developed.

No.

This Institute does not develop the curriculum of any of the course offered (other than those under the purview of the affiliating WBUT). As per AICTE/ WBUT norms, the Institute is not permitted to run any other course except the courses approved by AICTE and affiliated to WBUT.

1.1.8 How does institution analyze/ensure that the stated objectives of curriculum are achieved in the course of implementation?

The Institute analyses/ensures that the stated objectives of curriculum are achieved in the course of implementation, as follows:

- Student feedbacks and stakeholder feedbacks are collected on regular basis. These are analysed by Department and then Academic Cell and new suggestions/thinking extracted from it. Practicable new suggestions/ thinking are implemented to curriculum precisely in proper channel.
- Monthly attendance report, class assignment report, class test report and semester examination report card are sent to the parents to make them aware about progress of their wards.
- Many of the students have undertaken higher education with the above said curriculum, and are well placed in leading Multi National Companies and reputed organizations in India and abroad. Some of the students are involved in Research in various renowned Universities even in IITs.

1.2 Academic Flexibility

1.2.1 Specifying the goals and objectives give details of the certificate/diploma/skill development courses etc., offered by the institution.

Courses

As per AICTE and WBUT norms, this Institute is not permitted to conduct any certificate or diploma course.

This Institute, through its Training & Placement Cell, offers training for Skill development for making the students more eligible for employment and/ or higher studies.

Goals and objectives

The goals of these courses are to make the students market-ready for employment or able to take up higher studies. The objectives are to make their foundation strong and make them acquainted with the latest relevant skills .

Details of the courses

The Institute makes proper placement of students in the industry or to motivate them for higher studies. So it is felt that in addition to class room teaching, some special skill development programs/workshops/special coaching are needed for creating aspiration for higher studies and better employability. Followings are some of the skill development course offered by the Institute:

- EDUSAT programme conducted by affiliating WBUT in the Institute,
- ARDENT (Corporate Training Vendor for Wipro, Cognizant, etc.) Training programme for skill development of the students,
- Running Group Discussion & Quiz programs by the departments,
- Departmental seminars/workshops to improve communication skill and presentation power of the students,
- skills of communication in “Language laboratory”.

1.2.2 Does the institution offer programmes that facilitate twinning /dual degree? If, ‘yes’, give details.

No.

This institution does not offer programmes that facilitate twinning /dual degree.

1.2.3 Give details on the various institutional provisions with reference to academic flexibility and how it has been helpful to students in terms of skills development, academic mobility, progression to higher studies and improved potential for employability. Issues may cover the following and beyond:

- **Range of Core/Elective options offered by the University and those opted by the college.**
- **Choice Based Credit System and range of subject options.**
- **Courses offered in modular form**
- **Credit transfer and accumulation facility**
- **Lateral and vertical mobility within and across programmes and courses**
- **Enrichment courses**

Following are the various institutional provisions with reference to academic flexibility and how it has been helpful to students in terms of skills development, academic mobility, and progression to higher studies and improve potential for employability:

Range of Core/Elective options offered by the University and those opted by the college:

The various Professional Core subjects and two types of elective papers viz, Professional Elective and Free Elective are offered by the Institution under the guideline of affiliating WBUT.

Following are the brief summary of the range of Core/Elective options offered department wise (digits in cells indicate the total number of papers):

Sl No	Department	Professional Core		Professional Elective		Free Elective	
		Theory	Pract	Theory	Pract	Theory	Pract
1	B Tech in EE	12	11	03	01	05	03
2	B Tech in ME	15	16	06	02	02	00
3	B Tech in CE	15	16	05	00	02	01
4	B Tech in AEIE	11	09	04	02	04	02
5	B Tech in CSE	12	11	04	02	04	02
6	B Tech in IT	14	14	04	01	04	01
7	B Tech in ECE	14	12	04	01	04	03
8	M Tech in ECE	06	03	02	00	03	00

Choice Based Credit System and range of subject options

The affiliating WBUT has not yet adopted the Choice Based Credit System for the entire curricula. However, students select elective papers from a list of electives as mentioned in the syllabi of the affiliating WBUT.

Courses offered in modular form

The courses offered are in modular form.

Credit transfer and accumulation facility

There is a system of Credit transfer and accumulation facility within affiliating colleges of WBUT. To avail the facilities, one has to take consent from WBUT. However, such facilities are not allowed for the students from Universities other than WBUT.

Lateral and vertical mobility within and across programmes and courses

Both lateral and vertical mobility within and across programmes and courses are allowed.

- **Lateral mobility**

The lateral entry admission through WBJEEB to B Tech 2nd year is permissible in 20% of seats of the approved intake. Those seats are considered as supernumerary seats.

Engineering and Technology Courses available at Degree Level vis-a-vis the relevant Diploma Programmes applicable for admission under the Lateral Entry Scheme are given below:

Sl No	Courses available to this Institution for admission in UG/PG Programme	Admission to UG/PG	Relevant disciplines of Diploma in Engineering & Technology for admission through Lateral Entry Scheme
1	Applied Electronics & Instrumentation Engineering	UG	Applied Electronics & Instrumentation Engineering / Electronics & Instrumentation Engineering / Instrumentation Technology / Instrumentation Engineering/ Instrumentation & Control Engineering / Medical Electronics
2	Mechanical Engineering	UG	Mechanical Engineering/ Automobile Engineering
3	Civil Engineering	UG	Civil Engineering/ Survey Engineering/ Mining, Engineering/ Mining Survey
4	Computer Science & Engineering	UG	Computer Science & Engineering/ Computer Science & Technology/ Information Technology/Computer Software Technology
5	Electronics & Communication Engineering	UG	Electronics & Tele Communication Engineering/Electronics & Communication Engineering/Medical Electronics
6	Electrical Engineering	UG	Electrical Engineering
7	Information Technology	UG	Information Technology/ Electronics & Communication Engineering/ Computer Science & Engineering/ Electronics & Tele – Communication Engineering
8	Electronics & Communication Engineering	PG	Electronics & Communication Engineering/Applied Electronics & Instrumentation Engineering / Control & Instrumentation Engineering or M.Sc. In Electronics /Physics (with Electronics special)

- **Vertical mobility**

A student with at least CGPA 8.5 in B Tech first year who wishes to change his/her present course is allowed to any other Engineering and Technology courses in 2nd year provided seats are available.

Enrichment courses

- The course curricula of the affiliating WBUT incorporate some subjects which facilitate the students to realize recent tools and methods. The potential recruiters anticipate that student know those subjects in-depth. Some of such subjects along with its subject code (in bracket) are the following: C (CS201), Data Structure (CS302), Software Tools Lab (CS492), Object Orientated Programming and UML (IT401, CS504D), DBMS (CS601, IT601), Computer Networking (CS602, IT602), DBMS (EC705C), Software Engineering (IT603, CS701), Basic Electrical and Electronics Engineering (ES101, ES201), Analog Communication (EC501), Control System (EC503), DSP (EC602), Telecommunication System (EC603), Microelectronics and VLSI Design (EC702), Wireless Communication and Networking (EC701), Electric Circuit Theory (EE301), Electrical and Electronic Measurement (EE402), Thermal Power Engineering (MEEE411), Electric Machine (EE401,EE501), Power System (EE502,EE602), Workshop Practice(ME392), Manufacturing Technology Lab (ME492), Design Practice (ME593,ME693), Advanced Manufacturing Lab (ME791), Surveying (CE302), Building Material and Construction (CE303), Building Design & Drawing (CE393), Soil Mechanics (CE403), Sensors and Transducer (EI401), Microprocessor and Computer Architecture (EI402), Process Control (EI601, EI703), Principles and Practices of Management (HU511), English Communication (HU101, HU181). These subjects help the students for employability and acquiring entrepreneurship skills.
- As an added advantage, Training and Placements oriented skill development programme like Soft-Skill (Aptitude, HR, GD, PI etc.), English Communication Skill etc. are conducted by the faculty members along with external professional agencies to enhance the employability and progression opportunities of the students.
- Debates, Technical Quiz, Ex-tempore, Brain Storming etc are organized to make the students to express their ideas fluently.

1.2.4 Does the institution offer self-financed programmes? If ‘yes’, list them and indicate how they differ from other programmes, with reference to admission, curriculum, fee structure, teacher qualification, salary etc.

Yes, all the programmes offered by the Institute are self-financed.

List of the programmes

The self-financed programmes differ from other (that is, non-self-financed programmes), as follows

Admission

The students domiciled in the State are generally admitted in non-self-financed programmes in the State, but others are also admitted in self-financed programmes.

Curriculum

Same under the same University.

Fee structure

More in the self-financed programmes than that in the non-self-financed programmes.

Teacher qualification

Same

Salary

Same

1.2.5 Does the college provide additional skill oriented programmes relevant to regional and global employment markets? If 'yes' provide details of such programme and the beneficiaries.

Yes.

The Institute provides additional skill oriented programmes relevant to regional and global employment markets. Following are the detailed description of the programmes:

Regional employment markets

The Institute provides trainings to get job in Schools and Technical Colleges.

Global employment markets

- Conducting Training programme for skill development of the students.

Name of the Trainer group	Beneficiaries	Duration of the programme
Purple Leaf	Final year UG students	Six months
ARDENT	2 nd to 4 th year UG students	One year
Micro Pro	2 nd to 4 th year UG students	Three months
Core Technologies	Final year UG students	Six months

- EDUSAT programme (Satellite Interactive Terminal) was conducted in the Institute by affiliating WBUT for the students and faculty members.
- Group Discussion & Quiz programmes were conducted by the faculty members of the departments for the benefits of the students.
- Departmental seminars/workshops are organized to improve communication skill and presentation power of the students. It also helps to overcome the obscure knowledge and shyness.
- For the enhancement of communication skills, students are encouraged to use a multimedia enabled “Language laboratory” having interactive English learning software.
- Cost-free special GATE coaching for the student is arranged by the faculty members.

1.2.6 Does the University provide for the flexibility of combining the conventional face-to-face and Distance Mode of Education for students to choose the courses/combination of their choice” If ‘yes’, how does the institution take advantage of such provision for the benefit of students?

No.

The affiliating WBUT only offers face-to-face Mode of Education.

1.3 Curriculum Enrichment

1.3.1 Describe the efforts made by the institution to supplement the University’s Curriculum to ensure that the academic programmes and Institution’s goals and objectives are integrated?

Following are some of the efforts made by this Institute to supplement the University’s Curriculum to ensure that the academic programmes and Institution’s goals and objectives are integrated:

- Encouraging the students and faculty members to attend seminars/workshops/conferences on new and promising technologies.
- Short term training programmes are organised time to time.
- Institution motivates the students in participating in different industrial training programmes “under curriculum” and “beyond curriculum”.
- The faculty members of the Institution guide the students to prepare the models, undergo project works and publish papers in technical journals.

1.3.2 What are the efforts made by the institution to enrich and organize the curriculum to enhance the experiences of the students so as to cope with the needs of the dynamic employment market?

Followings are the efforts made by the Institution to enrich and organize the curriculum to enhance the experiences of the students so as to cope with the needs of the dynamic employment market:

- Within the curriculum, the lecture and laboratory infrastructure are enriched to enhance the experiences of the students so as to cope with the needs of the dynamic employment market.
- Efforts are taken to encourage the students to join the remedial classes.
- Special classes are arranged for aptitude test, GD, PI, English Communication Language and technical papers by the concerned department.
- Organising and participating seminar/workshop/symposium to know about new technologies and applications.
- Industrial visits to realise the functionality of new technologies or applied technologies.
- The students are encouraged to learn to use the modern tools and software.

1.3.3 Enumerate the efforts made by the institution to integrate the cross cutting issues such as Gender, Climate Change, Environmental Education, Human Rights, ICT etc., into the curriculum?

Following are some of the efforts by the Institute to integrate the cross cutting issues like gender equality etc into the curriculum:

Gender

There is nothing in the curriculum, which is Gender specific. The Institute treats both Genders equally.

Climate Change

When the relevant topics are taught, the attention of the students are drawn to the problem of Climate Change.

Environmental Education

A subject entitled “Basic Environmental Engineering & Elementary Biology” (paper code: CH301 & CH401) is included in the curriculum.

Human Rights

As per guidelines of the approving AICTE and affiliating WBUT, the Institute has cells like a Grievance Redressal Cell, Ombudsman Cell for the

Protection of Women, Anti-Ragging Committee, Anti-Ragging Squad, for the protection of Human Rights

ICT

The Institute has integrated Information Communication Technology to the urriculum.

1.3.4 What are the various value-added courses/enrichment programmes offered to ensure holistic development of students?

- **moral and ethical values**
- **employable and life skills**
- **better career options**
- **community orientation**

WBUT provides the following courses to ensure holistic development of students, as follows:

Moral and ethical values

Values and Ethics [HU 301]

Employable and life skills

Technical Report Writing & Language Lab Practice [HU481]

Professional Electives & Free Electives.

Better career options

Group Discussion

Community orientation

Extra Curricular Activities (NSS/NCC/NSO etc) [XC181]

1.3.5 Citing a few examples enumerate on the extent of use of the feedback from stakeholders in enriching the curriculum?

Feedback

- Students of the Electrical Engineering course were facing a problem about the basic knowledge of “magnetic properties” for the paper named “Field Theory” [EE302].
- Students of the Electronics and Communication Engineering course needed crystal clear knowledge of “Fourier Transform” to understand the paper named “Digital Signal Processing” [EC602].
- Students of the Electronics and Communication Engineering course needed basic idea of “Signal” to understand the paper named “Digital Signal Processing” [EC602].

Enrichment of curriculum on the basis of the feedback

- Module about “The Magnetic Properties” was included in the paper named “Physics II” [PH(EE)401].
- Module about “Fourier Transform” was included in the paper named “Mathematics III” [M302].
- Paper named “Signals & Systems” [EC303] was included in third semester of Electronics and Communication Engineering course.

1.3.6 How does the institution monitor and evaluate the quality of its enrichment programs?

Institute monitors and evaluates the quality of its enrichment programmes in the following ways:

- In addition to normal teaching learning process, the HODs, members of Academic cell and senior faculty members monitor and evaluate the enrichment programmes.
- The Institute encourages the students to involve in Project works, technical paper publication and Model preparation. Financial support to complete the above works and award/certificate of appreciation are provided.
- R & D cell headed by the Principal evaluate the research outcomes.
- The Academic Cell analyses the students’ semester progress report and takes necessary measures for improvement.
- Students are involved in inter-college competition and participate in model presentation events.

1.4 Feedback System

1.4.1 What are the contributions of the institution in the design and development of the curriculum prepared by the University?

Followings are the contributions of this Institute and its staff members to the development of the curriculum prepared by the University:

The faculty of the Institute are members in the workshops on curriculum, organised by WBUT.

Feedback from students, teachers, other stakeholders and specific suggestions regarding syllabus are received, analysed and conveyed to the affiliating WBUT for consideration in the Board of Studies Meetings of the University, through workshop organised by WBUT.

1.4.2 Is there a formal mechanism to obtain feedback from students and stakeholders on Curriculum? If “yes” how is it communicated to the University and made use internally for curriculum enrichment and introducing changes/new programmes?

Yes.

There is formal mechanism in the Institute to obtain feedback from students and stakeholders on Curriculum.

Feedbacks are collected on regular basis. These are analysed by Department and Academic Cell.

Communication to University

The suggestions for improvements of the curriculum, through the workshop organised by WBUT, are conveyed to the affiliating WBUT for consideration in the Board of Studies Meetings of the University,.

Making internal use

Acting upon the feedback, the teaching process is enriched to remove the difficulty faced by the students.

1.4.3 How many new programmes /courses were introduced by the institution during the last four years? What was the rationale for introducing new courses/programmes?)

Three new courses were introduced by the institution during the last four years.

Course	Programme Name	Approved Intake	Introducing Year
M Tech	Electronics and Communication Engineering	18	2011
B Tech	Civil Engineering	60	2012
B Tech	Mechanical Engineering	60	2012

Rationale for introducing new courses:

B Tech courses (ME & CE) have been introduced due to the following facts:

- There is a constant demand of the engineering students of these two courses in the Govt/Private sector.
- The BES has an experience to conduct those two UG level courses in diploma level and it helps us to introduce the courses.
- There are good numbers of Diploma colleges in the district having these two branches and for this reason, there is demand from lateral entrants in B Tech second year.

M Tech course (ECE) has been introduced due to the following facts:

- There are three UG level Engineering colleges in the district, but there is no course of M Tech level except “Textile Technology” in Govt College of Engineering and Textile Technology, Berhampore.
- M Tech course in ECE has been introduced to create better research environment in the Institute.
- We have quality faculty members and state-of-the-art laboratories in Electronics and Communication Engineering (ECE) department. That is why we are motivated to introduce the M Tech course in ECE.

CRITERION II: TEACHING-LEARNING AND EVALUATION

2.1 Student Enrollment and Profile

2.1.1 How does the college ensure publicity and transparency in the admission process?

The Institution follows the guidelines for admission process provided by the Higher Education Department, Government of West Bengal and the affiliating university, West Bengal University of Technology (WBUT). Admission to undergraduate programmes (B Tech 1st year and B Tech 2nd year lateral entry) is conducted through an independent body entitled “West Bengal Joint Entrance Examinations Board” (WBJEEB). Admission to postgraduate programme is conducted by the affiliating WBUT. The students are admitted to the UG and PG courses through the single window online counselling by WBJEEB and WBUT, respectively.

Publicity

In order to ensure publicity to create awareness about the institute and its academic activities, following steps are taken:

- The Institute maintains a website with detailed information.
- The Institute entertains enquiry through its website.
- The Institute publishes Prospectus, Leaflets, Pamphlets for circulation.
- The Institute displays banners at suitable places during the admission season.
- Admission notification is published in leading national and regional daily newspapers.
- The Institution has a pages in social medias like Facebook (https://www.facebook.com/besdiet?ref=br_tf).
- The Institute participates in some Education Fairs/Career Fairs within the state and some selected parts of the country outside the state.
- The members of the Institute visit the nearby schools and polytechnics to create awareness about programmes offered and facilities to be provided by the Institution.

Transparency

The admission procedure is cent percent transparent. The admission process for 100 % of sanctioned intake to B Tech and M Tech is governed and managed by WBJEEB and WBUT, respectively. The Institute does not offer management quota seats to the students.

2.1.2 Explain in detail the criteria adopted and process of admission (Ex. (i) merit (ii) common admission test conducted by state agencies and national agencies (iii) combination of merit and entrance test

or merit, entrance test and interview (iv) any other) to various programmes of the Institution.

The entire process of admission is controlled by the Higher Education Department, Government of West Bengal and the affiliating West Bengal University of Technology (WBUT).

Admission to B. Tech:

Admission to B Tech 1st year (general entry) is based on the merit list of West Bengal Joint Entrance Examination (WBJEEM)/All India Entrance Examination (JEE Main) followed by a centralised online counselling through the West Bengal Joint Entrance Examinations Board (WBJEEB). 90% of the seats of sanctioned intake are available for admission through the West Bengal Joint Entrance Examination (WBJEEM) and remaining 10% of seats are available for admission through the All India Entrance Examination (JEE Main). Candidates must be at least 17 (seventeen) years of age and there is no upper age limit. Candidates must pass Higher Secondary Examination (10+2 level) or its equivalent examination from recognized council or board with:

1. Individual pass marks in Physics and Mathematics as compulsory subjects along with one of the subjects – Chemistry/Biotechnology/Biology/a Technical Vocational Subject (Engineering Drawing / Computer Science)
2. Minimum of 45% marks in the above subjects taken together (40% for SC/ST/PwD/OBC candidates) as well as pass in English with a minimum of 30% marks (for all categories of candidates) in the said qualifying examination.

Admission to B Tech 2nd year (lateral entry) is based on the merit list in Joint Entrance Lateral Entry (JELET) followed by a centralised counselling through the WBJEEB. Diploma holders in Engineering and Technology Courses and B Sc Degree holders shall be eligible for admission to 2nd year Engineering Degree Courses and those seats are considered as supernumerary seats. 20% of seats of sanctioned intake are available for admission through centralized counselling conducted by WBJEEB in 2nd year (3rd semester). Diploma holder candidates who have passed Diploma Examination from an AICTE approved institution; with at least 45% marks (40% in case of reserved category students) in appropriate branch of Engineering Technology with JELET rank are eligible for admission. Candidates who have passed B Sc Degree from a recognized University as defined by UGC with at least 45% marks (40% in case of reserved category students) and passed XII standard with Mathematics as a subject with JELET rank are eligible for admission to B Tech 2nd year through lateral entry counselling.

In the case of seats remaining vacant after centralized counselling for both the cases (general entry to 1st year and lateral entry to 2nd year), conducted by WBJEE, Higher Education Department, Government of West Bengal allows the institute to conduct Decentralized Counselling as per guidelines laid down by the Government. Candidates with WBJEE/JEE Main rank and JELET 2014 rank (Diploma holder/B Sc Degree holder) are offered the said vacant seats on rank/merit basis in a transparent manner within stipulated time frame. Merit List of the students thus prepared for admission has to be sent to the affiliating WBUT for approval and registration.

Admission to M Tech:

Admission to M Tech programme is made through Post Graduate Entrance Test (PGET) conducted by affiliating WBUT followed by a centralised counselling conducted by the same WBUT, where due weight-age is given to valid GATE score and previous academic performance for preparing the merit list. All candidates must appear in the PGET. The proportional representation of marks for preparation of merit list is as follows: GATE score (40), PGET score (40) and Academic results (20). Out of 40, the marks are awarded in proportion to the GATE score. For admission in PG programme in ECE, the candidate should be a citizen of India and BE/B Tech in ECE /AEIE /Control & Instrumentation Engg or M Sc in Electronics /Physics (with Electronics special) or equivalent to BE/B Tech from a recognized University with current year valid PGET/GATE scores. Degrees acquired through any distance education programme are not eligible.

2.1.3 Give the minimum and maximum percentage of marks for admission at entry level for each of the programmes offered by the college and provide a comparison with other colleges of the affiliating university within the city/district.

The admissions to B Tech and M Tech programmes are executed strictly in accordance with the norms laid down by the Higher Education Department, Government of West Bengal and affiliating WBUT, respectively. The cut-off percentages of marks for admission to B Tech and M Tech are prescribed by the Higher Education Department, Government of West Bengal and affiliating WBUT, respectively which are furnished above in **2.1.2**. All the other colleges under the same affiliating WBUT within the city/district follow the same cut-off percentages of marks for admission to the Engineering/Technology courses other than Marine Engineering.

The minimum and maximum percentages of marks at the entry level for each B Tech and M tech programmes for the session 2013-14 are furnished below:

UG/PG	Programmes	minimum % of marks	maximum % of marks
UG	B Tech in ECE	56.3	70

UG	B Tech in EE	51.4	75.8
UG	B Tech in CSE	56.4	66.4
UG	B Tech in IT	52.4	52.4
UG	B Tech in AEIE	50.4	58.8
UG	B Tech in ME	45	77.4
UG	B Tech in CE	45.6	78
PG	M Tech in ECE	60.7	75.95

2.1.4 Is there a mechanism in the institution to review the admission process and student profiles annually? If ‘yes’ what is the outcome of such an effort and how has it contributed to the improvement of the process?

The admission process is totally under the control of WBJEEB and WBUT as per the guideline framed by State Government and institute follows rules, regulations and guidelines laid down by the state government. However, the Institute has an Admission Cell comprising of Teaching and Non-Teaching faculty under the direct supervision of the Principal and they periodically review the admission process and student profile. The cell conducts pre and post admission meetings. The cell collects the information of the admitted students and studies their following aspects:

- Academic performance (percentage of marks in 10th, 10+2th level etc)
- Economic background
- Gender representation
- Caste

Outcome:

These details serve as an input to understand the market trend and financial background classifications of the admitted students.

Contribution to Improvement of the process:

Depending upon the outcome, the management of the Institution makes decision about the admission strategy to improve the admission number, introduction of new course, etc. It also helps to understand whether the existing fee structure (which is now at a level lower than that prescribed by the Fee Structure Committee set up by the Higher Education Department, Government of West Bengal) required some upward revision for next year, maintaining the guideline of Fee Structure Committee (FSC).

2.1.5 Reflecting on the strategies adopted to increase/improve access for following categories of students, enumerate on how the admission policy of the institution and its student profiles demonstrate/reflect the National commitment to diversity and

inclusion

- * **SC/ST**
- * **OBC**
- * **Women**
- * **Differently abled**
- * **Economically weaker sections**
- * **Minority community**
- * **Any other**

The admission process is entirely under the guideline of State Government and institute follows rules and regulations as laid down by the State Government.

SC/ST/OBC

Though, the institute does not have reservations of seats for SC/ST/OBC students, the institute does not have any practice to discriminate in terms of caste within the campus. The students of this section are encouraged to take admission in this Institution. The institute guides and facilitates for arranging SC/ST/OBC scholarship and loans for the eligible aspirants.

Women

The institution does not discriminate on the basis of gender and encourages gender equality. The institution encourages more female students, so that the local women are encouraged and attracted to Engineering education. 30% of the merit-cum-means scholarship from West Bengal Minorities Development & Finance Corporation (WBMDFC), a Statutory Corporation of Govt. of West Bengal has been kept reserved for the minority Girl Students. Separate hostel facility is available for the women students.

Differently abled

Though, the Institution does not have reservations for physically challenged and differently-abled students, but they are treated affectionately and sympathetically. They are encouraged in taking part in all activities like other normal students and the institute provides them special assistance so that they can successfully complete the programmes. The Institution also ensures that the classrooms for them are kept in the ground floor to the possible extent for their convenience. The central library is located in the ground floor.

Economically weaker sections

- The Tuition Fee Waiver (TFW) Scheme of AICTE has been implemented by the Higher Education Department, Government of West Bengal for economically backward meritorious students of West

Bengal from the academic session of 2011-12. This Institution offers the admissions under said TFW Scheme. The selection of candidates for the Tuition Fee Waiver Scheme shall be decided on the basis of merit and preference of eligible students in the WBJEEM. Students must be domiciled in West Bengal and the total annual Family Income of the student from all sources must be less than Rs. 2.50 lakhs (Rupees two lakhs and fifty thousand) only. 30% of the merit-cum-means scholarship from WBMDFC has been kept reserved for the minority Girl Students.

- The institute also provides the in-house free studentships to the deserving economically weak students.

Minority community

The Institution guides and facilitates the students from minority community for Merit-Cum-Means Scholarship (MCM) from WBMDFC, a Statutory Corporation of Govt of West Bengal. Meritorious (minimum 50% marks at 10+2 level) and needy students belonging to minority communities and domicile of West Bengal with age not more than 32 years are also encouraged to avail the interest free Education Loan up to Rs 50,000 per year from WBMDFC.

Any other

- Student's Welfare Committee (SWC) of the Affiliating WBUT extends the fee waiving relief to the students facing hardship during the studentship in the case of the causalities viz. i) Death of Parent /Guardian / Earning Member of the family and ii) Accident faced during their studentship.
- The students can get Indian Railway train-fare concession from this Institution when travelling to and from their home or for purpose of educational tours.

2.1.6 Provide the following details for various programmes offered by the institution during the last four years and comment on the trends. i.e. reasons for increase / decrease and actions initiated for improvement.

Followings are the details for various programmes offered by the institution during the last four years and comment on the trends. i.e. reasons for increase / decrease and actions initiated for improvement.

UG Programme

Programmes	Number of applications				Number of students admitted				Demand Ratio			
	2010	2011	2012	2013	2010	2011	2012	2013	2010	2011	2012	2013
B Tech												
ECE	10	21	17	08	10	21	17	08	1	1	1	1
EE	20	37	33	10	20	37	33	10	1	1	1	1
CSE	03	17	20	04	03	17	20	04	1	1	1	1
IT	0	02	03	01	0	02	03	01	1	1	1	1
AEIE	03	03	05	02	03	03	05	02	1	1	1	1
ME	NA	41	43	23	NA	41	43	23	NA	1	1	1
CE	NA	NA	54	28	NA	NA	54	28	NA	NA	1	1

PG Programme

Programmes	Number of applications				Number of students admitted				Demand Ratio			
	2010	2011	2012	2013	2010	2011	2012	2013	2010	2011	2012	2013
M Tech												
ECE	NA	04	09	08	NA	04	09	08	NA	1	1	1

Reasons for increase/ decrease

The Institute has faced decline in number of students admitted in UG and PG courses. This trend has been observed in the entire state. The reasons for decrease in admission are the following:

- State, national and global employment scenario due to global recession and continued economic slowdown has become a dire threat to the private engineering colleges.
- Lack of interest of students in branches like CSE, IT and AEIE due to shrinking opportunities.
- Due to delay in holding the centralised counselling for admission to B Tech programme, many students opted admission to the general degree courses in the state and to the engineering colleges in other States.
- Increase in number of private colleges in West Bengal yields a decreased trend in admission.
- Increase in number of seats and introducing second shift in existing engineering colleges under the government policies seriously affect the private engineering colleges to get students. Even in Govt technical colleges and Universities, engineering seats are remaining vacant.
- Students are inclined to get admission to the colleges within Kolkata, the capital of West Bengal even in a newly established college without analysing the infrastructure, faculty and job opportunity. They are less interested to the district colleges due to some unknown reason.
- In 2001 private Engineering Colleges would charge Rs 25,200.00 per

year as tuition fee. But this year (2014-2015) the amount is Rs 75,000.00 – Rs 80,000.00 per year. This exponentially increasing fee structure pains the lower income group people to enter the door of Technical colleges.

Actions initiated for improvement

- To cater to the needs of global market, the institution has started B Tech programme in ME and CE.
- Especial attention has been given to emphasise the training and placement activities.
- Providing Personal Counselling on a small-group or individual basis to guardians/parents and students.
- Providing financial assistance in the form of the confirmed scholarship/fee concession to students to take admission in the Institution
- Providing cost free JEE coaching to the students from the neighbouring schools and give training on how to appear and crack the engineering entrance examinations like WBJEE, JEE (Main) and JEE (Advance).
- Organizing Education Fair in the college play ground and inviting the students-teachers-parents (especially students from class XI and XII) from neighbouring schools/locality of the district and holding career guidance sessions, science exhibition, debate, extempore, other competition etc.
- Visits to different schools of the district and other districts of West Bengal and even in neighbouring states like Bihar, Jharkhand and presenting leaflets/pamphlets through one to one interaction with students, teachers and guardians.
- The institution has produced a lot of alumni who have been playing significant roles in the technological advancement of India. Motivating our alumni to take interest in publicizing/promoting the general information of the Institution.
- The AICTE has taken decision not to permit opening of new engineering colleges anymore.
- Convincing the state government to request the AICTE not to sanction second shift and not to increase the existing number of seats anymore in an existing engineering college.

2.2 Catering to Student Diversity

2.2.1 How does the institution cater to the needs of differently-abled students and ensure adherence to government policies in this regard?

Though the institute does not have reservations for the physically challenged and differently-abled students, the Institution provides a separate mentor to counsel, personally guide, and identify their needs and addressing to the needs. They are treated affectionately and sympathetically. They are encouraged to take part in all activities like other normal students and institute provides them special assistance so that they can successfully complete the programmes. The institute also ensures that the classrooms for them are kept in the ground floor to the possible extent for their convenience.

2.2.2 Does the institution assess the students' needs in terms of knowledge and skills before the commencement of the programme? If 'yes', give details on the process.

Yes, the Institution assesses the students' needs in terms of knowledge and skills before the commencement of the programme.

- On the very first day of commencement of the programme, the Institution organizes a "Self Introduction Programme" where the management, authorities of the Institution, faculty members meet the-admitted students and their guardians. The students are provided with the idea about the latest trends in the respective field of Engineering and rules & regulations of the institution. The 1st day programme helps us to understand the various inherent skills and knowledge of newly-admitted students including fluency in English and their weak areas.
- They visit all the Departments/laboratories etc of the Institution.
- In the first week of the commencement of the programme, the faculty members of every department organises an orientation programme to assess the knowledge and skills through assignments and intensive interactions on basic sciences, mathematics and others areas which are required for the existing programme and identify the slow, medium and advanced learners. Accordingly, the faculty members plan, strategise and design the effective teaching-learning environments.
- To impart basic skills of communication in English through intensive practice, the affiliating WBUT



designs a paper entitled “English Language & Communication” in the 1st semester syllabus.

2.2.3 What are the strategies adopted by the institution to bridge the knowledge gap of the enrolled students (Bridge/Remedial/ Add-on/Enrichment Courses, etc.) to enable them to cope with the programme of their choice?

The “Self Introduction Programme” and orientation programme as mentioned above in 2.2.2, the skills and knowledge of newly-admitted students are clearly understood by the faculty members who will teach them. In order to bridge the knowledge gap identified, faculty members address them in diverse ways, for example,

- By conducting remedial classes, or special classes, for slow learners and different categories of students
- To impart basic skills of communication in English through intensive practice, regular mandatory classes are arranged. For the enhancement of communication skills, students are encouraged to use a multimedia enabled “Language laboratory” having interactive English learning software.
- As the lateral entry students join late with the regular students, bridge courses are conducted for lateral entry students.
- Experts from Industry/Academia are invited for giving lectures in order to bridge the knowledge gap of the newly-admitted students.
- Special training on the recent needs of the industries, in-plant training, teaching necessary “beyond syllabus” theoretical and laboratory contents and various add-on courses are conducted for the students.

2.2.4 How does the college sensitize its staff and students on issues such as gender, inclusion, environment etc.?

The Institute sensitises its staff and students on issues such as gender, inclusion, environment etc. In the following ways:

- The Institute encourages gender equality and does not tolerate gender differences. Male and female staff members and students are provided equal opportunities irrespective of genders, caste, religion and economic background. They participate in all the activities. There are separate toilets for males and females in the institution. There are separate hostels for males and females. Recruitment and admission policies for males and females are crafted accordingly.
- The Institute has Women’s Grievance Cell to facilitate a gender-sensitive and congenial environment in the campus.

- Blood donation camp for the benefit of the public is organized periodically.
- The Institute has arranged an awareness programme on “Thalassamia” and free-screening of “Thalassamia” of all students, faculty and staff in collaboration with “Murshidabad Medical College & Hospital”.
- Students participate in NSS activities and tree plantation event.

2.2.5 How does the institution identify and respond to special educational/learning needs of advanced learners?

The institution identifies the advance learners through classroom discussion, analysing marks secured in class test, University examination, viva-voce, laboratory performance, questioning ability, presentation in seminar, attendance, punctuality and discipline.

The special educational/learning needs of advanced learners are addressed based on the following methodologies:

- The advanced learners are greatly appreciated, valued and in some cases rewarded so that they may further progress and branch out their talents and skills. They are advised to improve their academic proficiency and quality more particularly by consulting numerous advanced textbooks, monographs, conference proceedings and published research articles.
- The advanced learners are encouraged to take part in seminars/symposia/ workshops to achieve awareness of modern advancement in technology, industry and research.
- Cost-free special GATE coaching is arranged by concerned faculty.
- Each department conducts special training programmes and competitions (both in-house and externally) like:

SI No	Dept	Special training programmes	Competitions
1	ECE	Matlab/Simulink, VLSI Design, DSP, Pspice, VHDL, IE3D	Robotics, Model design contest
2	EE	Matlab/Simulink, Electrical Machines, MiPower, Cadsoft EAGLE, MP Lab IDE, Arduino IDE.	Robotics, CNC, Signal processing
3	CSE	c, c++, JAVA, SQL Server, Visual Studio .NET, Oracle, Linux, Game and software development	Coding competition and algorithmic efficiency.
4	IT	c, c++, JAVA, .NET, SQL Server, Visual Basic, Game and software development	Coding competition and algorithmic efficiency.
5	AEIE	PLC, DAS, Microcontroller	PLC design

6	ME	Autocad, CIM	Autocad, CIM
7	CE	Autocad, GIS, Total station , Staadpro, SAP 2000, Etab	Bridge design and testing, Building design

- Advanced learners are encouraged to undertake industry based projects under the guidance of the faculty.
- Advanced learners are inspired for paper publication and presentations.
- They are provided by additional books through central library.

2.2.6 How does the institute collect, analyze and use the data and information on the academic performance (through the programme duration) of the students at risk of drop out (students from the disadvantaged sections of society, physically challenged, slow learners, economically weaker sections etc. who may discontinue their studies if some sort of support is not provided)?

Faculty members of the departments identify the students from disadvantaged sections of society, physically challenged, slow learners, economically weaker sections etc. who may discontinue their studies if some sort of support is not provided through class test, assignments, projects, University examination, viva-voce, laboratory performance and etc.

The data collected is analysed in the departmental level and forwarded to the authority of the college. Faculty members and in some cases, the college authorities counsel them and suggest how to improve their performance depending on the students' problem.

Moreover, mentorship programmes are also running under every department to provide special attention to these students using the techniques like providing additional learning material including solved question papers, give more time to understand a problem or to find out the answer, teach in a small group creating an easy atmosphere, focusing on concept building, review them periodically and reward them to raise their confidence.

Parents/guardians are also invited for counselling along with the students.

Fee concession is provided to the students who are not able to continue their studies due to financial constraints. Student's Welfare Committee (SWC) of the Affiliating WBUT extend the fee waiving relief to the students facing hardship during the studentship in the case of the causalities viz. i) Death of Parent /Guardian / Earning Member of the family and ii) Accident faced during their studentship.

2.3 Teaching-Learning Process

2.3.1 How does the college plan and organise the teaching, learning and evaluation schedules? (Academic calendar, teaching plan, evaluation blue print, etc.)

The Institute plans and organises the teaching, learning and evaluation schedules in the following ways:

- The Academic cell of the Institution comprising of the Principal, Vice Principal, Registrar, all HODs prepares its own one-semester academic calendar based on the calendar of events provided by the affiliating WBUT well in advance of the commencement of the new semester, which usually starts within the second week of July/January (Class of New Batch 1st semester students starts in the 1st working day of August, generally) following the university dates comprising the following details:
 - ✓ Schedule for Industrial Training,
 - ✓ Commencement of Classes,
 - ✓ Internal assessment,
 - ✓ Dates for sports events, cultural activities,
 - ✓ Display of Marks of the internal assessment,
 - ✓ Date of Teaching Ends,
 - ✓ University examination (both theoretical and practical) duration,
 - ✓ List of scheduled holidays,
 - ✓ Total number of Academic days, and etc.

The important dates including exam days are highlighted there in.

- The printed copy of the academic calendar is given to each department and the Xerox center of the institute. It is also hoisted to the institute website for students/parents/guardians and staff of the Institution in order that they are aware and attentive about the important academic activities well in advance.
- Before the commencement of each semester, the Head of the Departments allot the topics of the subjects (both theory and practical) as per the subject preferences and expertise of the faculty members, and submit the departmental load distribution to the routine committee.
- Class Time-Tables are prepared by the routine committee well in advance before the commencement of the semester. Those are circulated to each department, Xerox centre, and displayed in the notice boards.
- Individual faculty members then prepare one logbook per allotted subject that includes teaching plans for both theory and laboratory, details of contents to be covered as per affiliating WBUT, kinds of teaching aids to be used, brief time table, etc. This logbook is evaluated by the associated HODs.

- The HODs encourage the faculty members to prepare the lesson plan, study materials, question papers of the previous years of the affiliating WBUT, PPT, assignments, list of experiments, laboratory manuals, and question-answer bank keeping in mind the academic calendar and guest lecturers, seminar/workshop hours. These are evaluated on continuous basis by the academic sub-committees of the Department including concerned HOD.
- HODs and members of departmental sub-committee review the teaching learning process, monitor syllabus completion in both theoretical and practical. They also entertain grievances of the students, if any, and necessary corrective measures are carried out as required.
- Feedback on aspects of Teaching-Learning Process and the faculty members' performance/punctuality/attendance/ethical conduct etc is collected from the students/stakeholders periodically for corrective actions when teaching is in process. The feedback is analysed and evaluated, and a report is then prepared. Further, teachers are informed, counseled by the concerned HOD and college authorities in order to improve the quality of the Teaching-Learning Process.
- Two centralised internal examinations in each theory subjects in each semester (30 marks per subject) are conducted by the examination cell of the institution in order to assess the student performance. Marks scored by the students in the internal examinations are displayed on the departmental notice board and reviewed by the concerned departments. Subject teachers conduct counselling to the weaker/slow learner students and take remedial measures in order to improve their academic performance in the next examinations.
- The academic cell periodically reviews the overall Teaching-Learning Process of each department in order to ensure quality enhancement.
- Students are awarded internal marks on the basis of percentage of attendance, assignments and two internal examinations.
- At the end of each semester, the affiliating WBUT conducts examination in both theory and practical subjects as per the university calendar. The answer scripts are centrally evaluated by the affiliating WBUT and publish the results in the university website.



- Each department carries out result analysis, prepares reports on the percentage of attendance in class, students'/stakeholders feedbacks and assessing report of assignment. They place the information to IQAC and seek the strategy for further advancement of the quality of the Teaching-Learning Process.

2.3.2 How does IQAC contribute to improve the teaching-learning process?

The institution has established Internal Quality Assurance Cell (IQAC).

The major activities of the IQAC are:

- Enhancing and sustaining the quality of teaching-learning process of the institution throughout the year in all spheres.
- Monitoring of feedback taken from the students'/stakeholders and suggesting suitable remedial measures.
- Motivate the faculty members to use latest scientific aids for teaching and to initiate innovative practices.
- Encourage faculty members for Innovative Research and collaboration, and to attend seminars/ workshops/conferences on new and promising technologies.
- IQAC motivates the faculty members to conducts seminars/ symposium/ workshops/conferences.

2.3.3 How is learning made more student-centric? Give details on the support structures and systems available for teachers to develop skills like interactive learning, collaborative learning and independent learning among the students?

The institution always encourages the faculty members to make the learning student -centred where the faculty members is not an instructor any more, rather a facilitator who assists students to access information and process knowledge. It provides essential platform to the students to become confident and self reliant.

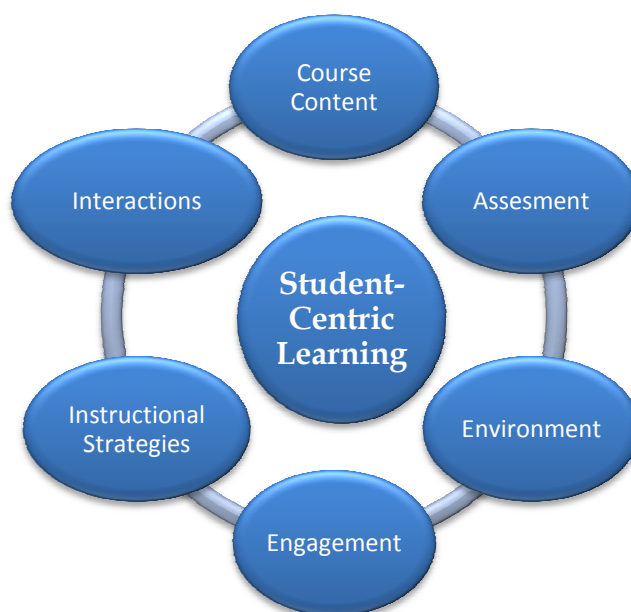
To make the learning student-centred, the following participatory learning activities are adopted:

- Organising necessary expert lectures by experts from Industry, Research and Academic Institutes, seminars/symposia/workshops, Tech Fest, competitions, Project exhibitions, Poster presentation, aptitude test etc and encouraging students to participate in presentation/ seminars.
- Training and placements oriented skill development programme like Soft-Skill (Aptitude, HR, GD, PI etc.), English Communication Skill etc. required for employability enhancement.

- Industrial visits to gain practical knowledge about how various industries & organizations operate.
- Organising quiz, debating, ex-tempore, Brain storming sessions.
- Holding Education Fair and exhibitions.

Support structures and systems available

- Dedicated and state-of-the-art laboratories, language lab and workshops are available where the students' access is flexible.
- Spacious well equipped class rooms, tutorial rooms, seminar rooms.
- Using LCD projectors, audio & video devices during lectures and labs.
- Entire institute and all the hostels has the Wi-Fi connectivity for students' independent learning
- Availability of good number of books (texts and references), Journals, magazines and learning resources like CDs/DVDs etc.



2.3.4 How does the institution nurture critical thinking, creativity and scientific temper among the students to transform them into life-long learners and innovators?

To nurture critical thinking, creativity and scientific temper among the students to transform them into life-long learners and innovators, the Institution has taken the following steps:

Critical thinking:

- The students are encouraged to design Models and undergo Projects.

- The students are encouraged to publish their Project/Research work in Journals and Seminar/Conference Proceedings.
- To generate research aptitude of the student, they are motivated to be acquainted with the Applications of Modern Analytical Methods.

Creativity:

Students are inspired to participate in Model Preparation, Circuit Designing, Paper Presentations and Software Coding Contests organized in and outside the Institution.

Scientific temper:

- ✓ With a view to encouraging and inculcating scientific temperament among the students of the Institution, this college has organised an “Education Fair” where the students showcased and demonstrated their talents and creativity in their respective and inter-disciplinary fields.
- ✓ Students are motivated to participate in various activities like Science & Technical Debates, Technical quiz Competition, Brain-Teasers etc.

2.3.5 What are the technologies and facilities available and used by the faculty for effective teaching? Eg: Virtual laboratories, e-learning - resources from National Programme on Technology Enhanced Learning (NPTEL) and National Mission on Education through Information and Communication Technology (NME-ICT), open educational resources, mobile education, etc.

The following are the technologies and facilities available and used by the faculty for effective teaching

- OHP/LCD projectors,
- Audio & video devices,
- Other learning resources like CDs/DVDs etc,
- Downloaded resources from National Programme on Technology Enhanced Learning (NPTEL) and MIT Open Courseware,
- High-Speed Internet Access across the campus and hostels,
- Various computer software packages,
- Fully automated digital Central Library,
- Access to online database,
- Xerox, Printer, Scanner and Camera,
- Multimedia enabled “Language laboratory” having interactive English learning software.

2.3.6 How are the students and faculty exposed to advanced level of knowledge and skills (blended learning, expert lectures, seminars, workshops etc.)?

The institution exposed the students and faculty members to gain advance level of knowledge and skills in the following ways:

- Organising seminars/symposia/workshops by experts from Industry, Research and Academic Institutes and motivating the students and faculty members to participate.
- Organising Tech Fest, Project Exhibitions, Poster Presentation, various competitions like Code Contest, Robotics, Gaming, etc.
- Encouraging students and faculty members for Innovative Research and collaboration, and deputing them to attend seminars/workshops/conferences/refresher courses/WIPRO-Mission 10X and other academic enhancement programmes organized by academic and professional institutions on new and promising technologies by providing on-duty and full financial support.
- Encouraging students and faculty members to access the journals, online database and video lectures from NPTEL and MIT Open Courseware.

2.3.7 Detail (process and the number of students/ benefitted) on the academic, personal and psycho-social support and guidance services (professional counseling/mentoring/academic advise) provided to students?

Details on the academic, personal and psycho-social support and guidance services provided to students by the Institution are the following:

Academic support and guidance:

- ✓ Remedial classes are arranged for slow learners.
- ✓ Students are offered individual or group counselling which helps them to increase self understanding and shape their career.
- ✓ Additional books from library are provided to the students.
- ✓ Students can access video lecturers for independent learning that helps them to pace their learning and revise concepts anytime.
- ✓ One faculty member is allotted for each group of 20 students as mentor to provide academic and personal guidance, and to facilitate the overall development of the students.

Personal support and guidance:

A range of personal support is available for the students, as given below:

- ✓ The mentor faculty member monitors attendance, punctuality and progress of each student and counsel them personally.
- ✓ The Institution provides personal financial support to prospective but

- ✓ Students with poor communication skills are identified and guided personally.
- ✓ The mentor faculty member helps the students to overcome the inferiority complex and non-progressive attitudes, if any.

- ✓ Students suffering from self-harming (or self-injury) tendency are identified and counselled. The guardians are informed about the problems. They are sent to the specialists for extensive medical counselling and therapy for a considerable duration.
- ✓ The Institution provides proper aid, counselling and assistance to the students suffering from Manic-Depressive, Psychotic Depression, Minor Depression, Exam Phobia and Anxiety. Our Doctor prescribes therapy if necessary.

[illegible]

- ✓ The Institution is focused on the adjustments and adaptation issues of the students related to their daily life and study (like living adjustment, personal psychological adjustment, social adjustment, loneliness, homesickness, problems in interacting with classmates & teachers). Faculty Members understand their perceptions and counsel them in a semi-structured face-to-face technique if support service is needed.

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Details of innovative teaching approaches/methods adopted by the faculty members during the last four years are given below:

- Faculty members use OHP/LCD projectors for effective delivery of lectures.
- Faculty members use ICT, charts, models, graphs etc.
- Faculty members use digital library, educational CD/DVD, journals and video lectures from NPTEL and MIT Open Courseware.
- Faculty members organize seminars/symposia/ workshops periodically.
- Faculty members participate in FDPs, refresher courses, seminars/symposia/ workshops etc in order to enhance their own proficiency and knowledge, and transfer the knowledge to the students for their betterment with a suitable approach.
- They conduct some experiments and deliver some lectures beyond curriculum to draw attention of the students about some recent trends related to the concerned subject.
- The institution provides cost free GATE coaching. Training and placements oriented skill development programmes like Soft-Skill (Aptitude, HR, GD, PI etc.), English Communication Skill etc. required for employability enhancement are organized.

Following are some efforts made by the institution to encourage the faculty to adopt new and innovative approaches and the impact of such innovative practices on student learning

- The institution provides finance to purchase models, charts, graphs, educational CD/DVD, journals, experimental kits etc.
- The institution procured good number of OHP/LCD projectors.
- The institution provides funds to organize seminars/symposia/ workshops.
- The institution provides hi-speed internet facility for all the faculty members for collecting information, preparation of notes/assignments/PPT, etc for seeking attention of students' in teaching-learning.
- Faculty members are encouraged to pursue higher study. The institute provides study leave/sabbatical leave.
- The institution provides full registration fee necessary for the participation in the seminars/symposia/workshops and other training programmes.
- The faculty members are encouraged to publish their research findings in journals/conferences and the institution reimburses a portion of the associated publication cost, if any.
- Field visits, industrial visits, educational trips are encouraged.
- The institution also provides finance for procuring equipment to

undertake final year project works by the students.

- The parent Basantapur Education Society (BES) holds education fair every year in the play ground of the institution.

2.3.9 How are library resources used to augment the teaching-learning process?

The Institute has well equipped and fully automated Central Library through the Koha Library Software. The library has relevant books, magazines, journals, internet, news papers, and other learning resources like CDs/DVDs etc. Each department also has its own departmental library. The institution provides cost free book bank facility from which every student borrows a set of text books one per subject as per the syllabus of affiliating WBUT and the students keep those for the entire semester. Besides this book bank facility, students can borrow additional three books from the central library through normal library facility. Library resources are increased in every semester. The institution has the subscription of online database. Internet facility and NPTEL (<http://www.nptel.iitm.ac.in>) & MIT Open Courseware (<http://www.ocw.mit.edu/index.htm>) links are available to the library. The library has reprographic facility for students, faculty members and other staff.

2.3.10 Does the institution face any challenges in completing the curriculum within the planned time frame and calendar? If ‘yes’, elaborate on the challenges encountered and the institutional approaches to overcome these.

The Institute prepares and follows planned academic calendar and time table well in advance. The institution remains open in a “Bandh/Hartal” declared by any political party. Therefore, unexpected holidays are not observed and students’ do not face loss of classes in general. Thus, the institution does not face any challenge in completing the curriculum within the planned time frame and calendar.

However, due to delay in holding the centralized counselling for admission to B Tech 1st year programme conducted by WBJEEB, the institution faced challenges in completing the curriculum within stipulated time.

Institutional approaches to overcome the challenge

The faculty members modify the lesson plan and take extra classes. The syllabi completed are reviewed from time to time and if necessary, the weekly off-days are utilized to complete the curriculum.

2.3.11 How does the institute monitor and evaluate the quality of teaching learning?

The Institute monitors and evaluates the quality of teaching learning through the following mechanism:

- Academic calendar and time table are prepared well in advance before start of the academic activity of every semester.
- All the faculty members of the Institution prepare subject wise Lesson Plan, Logbook and Course Material well in advance before the commencement of a semester.
- The members of each departmental sub-committee assess the quality of Course Materials and assignments prepared by the faculty member of the concerned department.
- Periodic meetings of departmental sub-committees are conducted to improve teaching learning process. They also review the logbook regularly.
- The authority of the institution and HODs go on visiting around the class rooms and laboratories regularly to observe and assess the quality of the teaching-learning process. They also entertain feedbacks from randomly selected students through close interaction. Internal assessment tests, assignments, viva-voce etc are conducted. The marks obtained in each of the internal examinations and university examinations are analysed and scrutinised with respect to various parameters to improve teaching learning process.
- Printed feedback forms are distributed amongst the students of the institution in order to assess the performance of individual teachers and teaching-learning process on various aspects like academic quality, communicative ability, motivational capacity, empathetic interaction and knowledge outside the purview of the syllabus. Corrective and preventive measures are taken wherever necessary.
- The institution collects self-appraisal report each year from every one of the faculty members who have completed minimum one year of continuous service in this institution. The HODs and the Principal assess the report and give their views.
- The IQAC monitors and evaluates the quality of the teaching-learning process, and suggests measures accordingly for further cognizant and catalytic improvement of the quality of the teaching-learning process.

2.4 Teacher Quality

2.4.1 Provide the following details and elaborate on the strategies adopted by the college in planning and management (recruitment and retention) of its human resource (qualified and competent teachers) to meet the changing requirements of the curriculum.

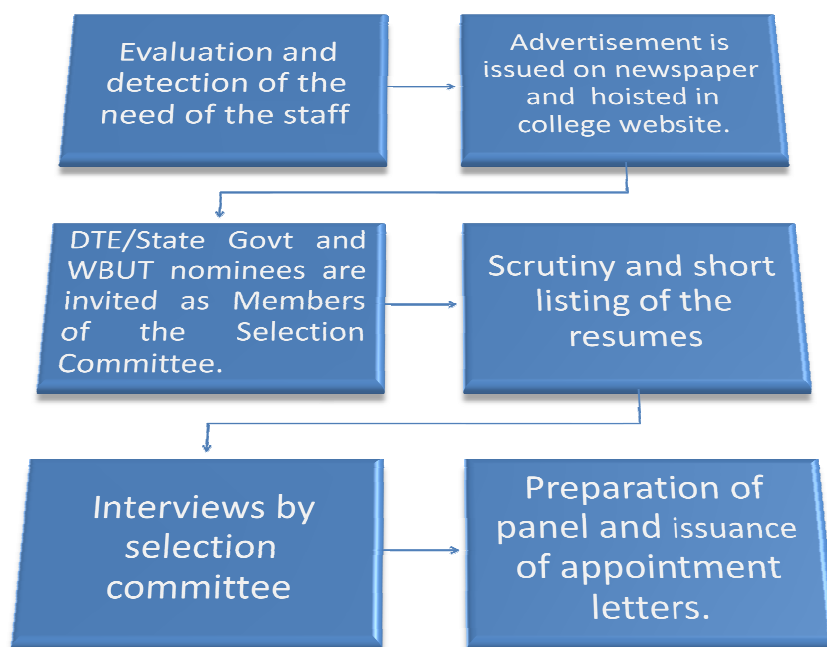
The strategies adopted by the Institute in planning and management (recruitment and retention) of its human resource are as per the norms of

AICTE and affiliating WBUT.

The current status of faculty members is shown below:

The current status of faculty members is shown below.							
Highest qualification	Professor		Associate Professor		Assistant Professor		Total
	Male	Female	Male	Female	Male	Female	
Permanent teachers							
D Sc/D Litt	00	00	00	00	00	00	00
Ph D	02	00	02	00	00	00	04
M Phil	00	00	00	00	00	00	00
PG	00	00	01	00	80	10	91
Temporary teachers							
Ph D	00	00	00	00	00	00	00
M Phil	00	00	00	00	00	00	00
PG	00	00	00	00	00	00	00
Part-time teachers							
Ph D	00	00	00	00	00	00	00
M Phil	00	00	00	00	00	00	00
PG	00	00	00	00	00	00	00

A schematic glimpse of the systematic procedure of recruitment is given below:



2.4.2 How does the institution cope with the growing demand/ scarcity

of qualified senior faculty to teach new programmes/ modern areas (emerging areas) of study being introduced (Biotechnology, IT, Bioinformatics etc.)? Provide details on the efforts made by the institution in this direction and the outcome during the last three years.

The institute does not conduct the new programmes like Biotechnology and Bioinformatics. However, the institution takes numerous measures to cope with the growing demand/scarcity of qualified senior faculty to teach modern areas (emerging areas).

Some of the measures taken by the institution are the following:

- Faculty members are encouraged to pursue higher study including Research to leverage the expertise and skills in some latest emerging areas. The institute provides study leave.
- The institution provides funds to organize seminars/symposia/workshops.
- The institution provides full registration fee necessary for the participation in the seminars/symposia/workshops and other training programmes.
- The faculty members are encouraged to publish their research findings in journals/conferences and the institution reimburses of the associated publication cost, if any.
- The institution encourages visits and lectures of visiting faculty/guest faculty / external experts from industry and academia.

Senior faculty members who have visited our institution during the last three years to teach new programmes/ modern are the following:

SI	NAME	DESIGNATIO N	NAME OF INSTITUTE/UNIVERS ITY
1	Dr Montosh Biswas	Associate Professor	Jadavpur University
2	Dr Chandan Kumar Sarkar	Professor	Jadavpur University
3	Prof S K Dana	Professor	IICB,Kolkata
4	Dr Aminul Islam	Associate Professor	BIT Mesra
5	Dr. K Murali	Professor	Anna University, Chennai
6	Dr Tanmoy Banerjee	Assistant Professor	Burdwan University
7	Dr Subinoy	Professor	Jadavpur University

	Chakraborty		
8	Dr Tapan Saha	Asst Prof	Presidency University
9	Dr Joydev Chattopadhyay	Professor	ISI, Kolkata
10	Dr Sabyasachi Bhattacharya	Associate Professor	ISI, Kolkata
11	Dr Debaldev Jana	Post Doctoral fellow	Visva Bharati
12	Mr Som Subhra Gupta	Asst Prof, IT	JIS college of Engg, Kalyani
13	Mr Chandan Sinha Roy	Asst Prof, CSE	Govt College of Engg & Textile Technology, Berhampore
14	Mr Amrut Ranjan Jena	Asst Prof, CSE	JIS college of Engg, Kalyani
15	Dr D Mondal	Asst Prof, ECE	NIT, Durgapur
16	Dr M Lakshmanan	Professor	Centre for nonlinear Dynamics
17	Dr Malay Banerjee	Associate Prof	IIT Kanpur
18	Dr Joydev Chattopadhyay	Professor	ISI, Kolkata
19	Dr Shib Shankar Saha	HOD, EE Dept	Govt College of Engg & Textile Tech, Berhampur
20	Dr Tapas Halder	Assistant Professor	Kalyani Govt Engg College
21	Prof Dr S Das Gupta	Principal	Murshidabad College of Engg & Tech
22	Mr Prem Kumar Sarkar	Assistant Professor	Govt College of Engg & Textile Tech, Berhampur
23	Milan Kr. Mandal	Lecturer	Bishnupur Govt. Polytechnic
24	Samir Ranjan Sarkar	Former Lecturer	Birla Institute of Technology Kolkata
25	Prof P K Majumdar	Professor	GCETT, Serampore
26	Prof A Ghosal	Professor	IRPE, CU
27	T Halder	Assistant Professor	GCETT, Berhampore
28	Indrajit Pandey	Assistant Prof	Techno India College of Technology ,Newtown
29	Srijan Bhattacharaya	Assistant Professor	RCC Institute of Information Technology

2.4.3 Providing details on staff development programmes during the last four years elaborate on the strategies adopted by the institution in enhancing the teacher quality.

a) Nomination to staff development programmes

Academic Staff Development Programmes	Number of faculty
Refresher courses	
HRD programmes	
Orientation programmes	
Staff training conducted by the university	
Staff training conducted by other	
Summer / winter schools, workshops, etc.	

b) Faculty Training programmes organized by the institution to empower and enable the use of various tools and technology for improved teaching-learning

- * Teaching learning methods/approaches**
- * Handling new curriculum**
- * Content/knowledge management**
- * Selection, development and use of enrichment materials**
- * Assessment**
- * Cross cutting issues**
- * Audio Visual Aids/multimedia**
- * OER's**
- * Teaching learning material development, selection and use**

c) Percentage of faculty

- * invited as resource persons in Workshops / Seminars / Conferences organized by external professional agencies**
- * participated in external Workshops / Seminars / Conferences recognized by national/ international professional bodies**
- * presented papers in Workshops / Seminars / Conferences conducted or recognized by professional agencies.**

Followings are the elaboration on the strategies adopted by the institution in enhancing the teacher quality (providing details on staff development programmes during the last four years):

- a) The details of nomination to staff development programmes during the last four years are given below:

Academic Staff Development Programmes	Number of faculty
Refresher courses	3
HRD programmes	4
Orientation programmes	2
Staff training conducted by the university	4
Staff training conducted by other institutions	2
Summer / winter schools, workshops, etc.	21

- b) The Faculty Training programmes organized by this Institute to empower and enable the use of various tools and technology for the improvement teaching-learning are the following

Programme	No of Programmes
Teaching learning methods/approaches	06
Handling new curriculum	02
Content/knowledge management	05
Selection, development and use of enrichment materials	03
Assessment	08
Cross cutting issues	03
Audio Visual Aids/multimedia	04
OER's	04
Teaching learning material development, selection and use	07

- c) Percentage of faculty

Category	Percentage of faculty
Faculty invited as resource persons in Workshops / Seminars / Conferences organised by external professional agencies	0
Faculty participated in external Workshops / Seminars / Conferences recognised by national/ international professional bodies	20.75
Faculty presented papers in Workshops / Seminars / Conferences conducted or recognised by professional agencies	13.20

2.4.4 What policies/systems are in place to recharge teachers? (eg:

providing research grants, study leave, support for research and academic publications teaching experience in other national institutions and specialized programmes industrial engagement etc.)

The Institute provides full support to recharge teachers for their professional and academic development in the following ways.

Research Grants

- If a faculty member desires to undergo Ph D with fellowship on full time basis having minimum of two years of teaching experiences in this institute is relieved from all academic and administrative responsibilities and considered for partial reimbursement of Ph D registration fee paid to the University and expenses for the preparation of the thesis. Moreover, they are eligible for additional increments as per norms on getting the Ph D degree.
- When a faculty member desires to undergo Ph D on part time basis having minimum of two years of teaching experiences in this institute are considered for support by the following ways:
 - ✓ Arranging the time table, he/she may be given one day off per week in addition to the two-weekly holidays (Thursday and Friday) for concentrating more on the research work.
 - ✓ Partial reimbursement of Ph D registration fee paid to the University and expenses for the preparation of the thesis.
 - ✓ Providing full-pay study leave for the duration of pre-Ph D course work.
 - ✓ Additional leave in time of preparation of thesis may be given on priority basis.

Support for pursuing M E/M Tech degree

- Faculty members with B E/B Tech degree having minimum of two years of teaching experiences in this institute are sponsored for M E/ M Tech programme in their relevant field of study on full time basis.
- They are given full-pay leave for the entire period of study.
- They enjoy the additional increments and grade pay as per norms on getting the ME/ M Tech degree.

Study leave

- Study leave for full time Ph D programme are given.
- Study leave for pursuing pre-Ph D course work.
- Study leave for full time ME/M Tech course.
- Arranging the time table, one who pursuing Ph D programme may get one day off per week in addition to the two-weekly holidays

(Thursday and Friday) for concentrating more on the research work.

- Faculty members are deputed for participation in Workshops/Seminars/Symposia and Faculty development programme treating the leave of absence for the period of the programme and time spent for to-and-fro travel as “on duty”.

Support for research and academic publications

The Institution believes that due to the rapid changes in the technology, faculty members should update themselves and keep abreast of the latest techniques and developments in their field of interest. The Institution supports them in the following ways:

- Institution offers desktops with Internet facility to the faculty members.
- Encouraging the faculty members to undertake projects and paper publication.
- Encouraging the faculty members to attend Workshops/Conferences/Seminars/Symposia. The associated registration fee is always reimbursed.
- Reimbursement of “Manuscript Publication Charge” in case of acceptance of manuscript in international peer reviewed journals of good repute.

Moreover the Institution encourages the departments to organize Workshops/Conferences/ Seminars/Symposia by providing financial assistance in order to promote research awareness and to facilitate the interaction among faculty members and experts from academia and industry.

2.4.5 Give the number of faculty who received awards / recognition at the state, national and international level for excellence in teaching during the last four years. Enunciate how the institutional culture and environment contributed to such performance/achievement of the faculty.

The Institution motivates the faculty members to do extremely well in their areas of research and teaching. The Institution provides “Best Teacher Awards” along with the letter of appreciation to one faculty member per department per academic year based on their performance in teaching and research. Dr Arindam Biswas has received the PhD degree from NIT Durgapur in the year 2013. Dr Pallav Jyoti Pal has received Ph D degree in 2013 from Visva-Bharati, a central university and an institution of national importance and this Institute provides him the Recognition of Achievement in research.

2.4.6 Has the institution introduced evaluation of teachers by the

students and external Peers? If yes, how is the evaluation used for improving the quality of the teaching-learning process?

The Institute has a feedback system for the evaluation of teachers by the students to identify the strengths and weaknesses of the faculty members. The feedbacks are collected once in a semester for each faculty and on the basis of the report of evaluation, the HODs/Registrar/Vice Principal/Principal counsel the faculty members. The faculty having deficiencies and negative remarks are provided with students' expectations, performance standards and appropriate constructive suggestions which help them to improve their teaching strategies in subsequent semesters. The faculty members having good feedback are valued and appreciated which further strengthen their dedication to the teaching-learning process.

The parent BES collects the Self-appraisal Report from each faculty once in an academic year where the concerned HOD and Principal put their comments. It is examined properly and necessary suggestions are given to the concerned faculty members, if required.

2.5 Evaluation Process and Reforms

2.5.1 How does the institution ensure that the stakeholders of the institution especially students and faculty are aware of the evaluation processes?

The institute ensures that the students and faculty are well aware of the evaluation processes in the following way:

- The curricula and syllabi of all the programmes offered by the Institution along with details of the evaluation process are available in the affiliating WBUT websites.
- During the orientation programme, the newly admitted students are well informed about the minimum required percentage of attendance, pass mark requirements, criteria for allocation internal marks, marks distribution in internal tests, schemes of evaluation and the grading systems of the affiliating WBUT.
- Any modification in the evaluation process or any periodic instructions issued from affiliating WBUT is announced to the HODs and Officer-In-Charge (OIC) of Examination Cell in the academic council meetings. Students and all staff are notified through Notice Boards of the Institution.
- HODs explain the evaluation process to other faculty members of the concerned department in the departmental meeting.
- The Officer-In-Charge (OIC) of the Examination Cell of the Institution prepares an Instruction Manual on the basis of the guidelines laid down by the Controller of Examinations of the affiliating WBUT for

conducting of University examinations and copies of the same are forwarded to all departments.

- The students are encouraged to consult with the teachers/HODs/College Authority if they are in any doubt.

2.5.2 What are the major evaluation reforms of the university that the institution has adopted and what are the reforms initiated by the institution on its own?

Major evaluation reforms adopted by the University:

- The affiliating WBUT offers the facility of Post publication viewing (PPV) from 2008. Theory Answer Script can be viewed by the Student ONLY who will apply for PPV before the review process of WBUT.
- Online end semester examination form fill up process has been introduced from 2013.
- Online internal marks submission process has been started using Digital Signature Certificate (DSC) from 2014.
- Initially the syllabi and question papers of PG programme were prepared by the concerned Institution; but now the affiliating WBUT prepares the same centrally wef 2011 and 2012 respectively.
- WBUT makes it mandatory to check the answer scripts by the faculty members who have at least the PG degree and have minimum two years of experience in teaching.
- The year lag and retention process of student having more than four back log papers in an academic year has been changed from 01.01.2014. Now, a student shall be eligible for promotion to the next higher level/year with back logs but those back logs are to be cleared within the time limit of the completion of the course.
- Coding system of the UG programme has been modified as per the requirements of the Washington Accord and AICTE.

Major evaluation reforms adopted by the Institute on its own:

- The class tests are organised centrally by the Examination Cell of the Institute.
- The result of the class tests are hoisted in website of the Institute.
- The log book system has been introduced to assess and evaluate the performance of the students. It helps to award marks in the internal examinations in a transparent way.
- The Institute follows all mandates as laid down by the affiliating WBUT regarding the evaluation process.

2.5.3 How does the institution ensure effective implementation of the evaluation reforms of the university and those initiated by

the institution on its own?

The Institute ensures effective implementation of the evaluation reforms of the affiliating WBUT and those initiated by this institution in the following ways:

- Following all mandates of affiliating WBUT of the evaluation process.
- Deploying the faculty members to the WBUT campus for evaluating the answer scripts of the end semester theory examinations.
- Preparing the class test schedule well in advance of the internal examination dates, and preparing the invigilation schedule for internal and end semester examinations by the examination cell.

2.5.4 Provide details on the formative and summative assessment approaches adopted to measure student achievement. Cite a few examples which have positively impacted the system.

Followings are the details on the formative and summative assessment approaches, adopted to measure student achievement:

Formative assessment approaches

Formative assessment provides feedback and information during teaching learning process. It measures student progress and assesses teacher's own progress as an instructor. It helps both faculty and students in decision-making and to polish up their teaching and learning strategies through the teaching-learning process. Since students' final grade or mark is not associated with Formative assessment, students can be more experimental, challenging, self-focused and committed to their goal.

Formative Evaluation Approaches adopted by the Institute are –

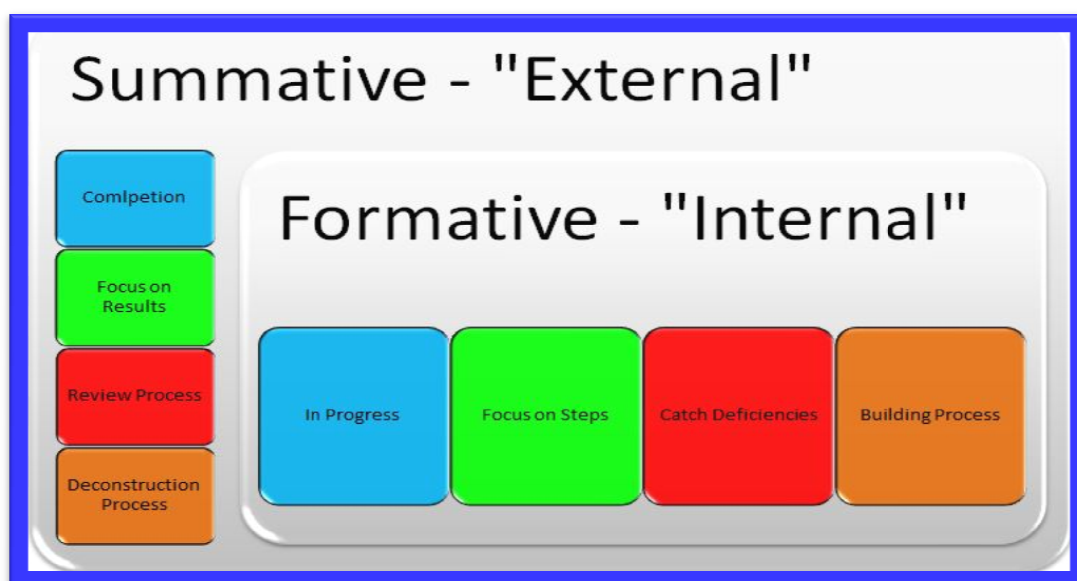
- Observations during in-class activities.
- Four Assignments over a Semester.
- Two Class Tests over a Semester.
- Laboratory experiments as per syllabi.
- Continuous Evaluation through student interactions in a class.
- Feedback from students to polish up teacher's strategies.

Summative assessment approaches

Summative assessment occurs when the formal teaching-learning has been finished. It gives information and feedback that summarises the teaching and learning process.

The Summative Evaluation Approaches adopted by the Institute are –

- End Semester Examination conducted by the affiliating WBUT,
- Self-evaluation of faculty,
- Professional Assessment programmes for Final Year students.



It may be mentioned that, both theory and practical subjects are assessed for a maximum of 100 marks. In project paper, the total marks are 100. A brief structure of marks distribution in end semester theory and practical papers is presented in the following table:

Theory				Practical			
End Semester Theory Examination (Full Marks 70)		Theory paper Internal Assessment (Full Marks 30)		End Semester Practical Examination (Full Marks 60)		Laboratory Sessional/ Internal Assessment (Full Marks 40)	
Category	Marks #	Category	Marks	Category	Marks	Category	Marks
Multiple Choice Questions	10×1=10	Two Course/Class Tests	15	Conduction of performance in laboratory class	15	Preparation for Conducting Experiments	10
Short Answer Type Questions	3×5=15	Quizzes and Assignments	10	submission of lab copies	10	Presentation of Lab Report, its regularity in Submission and Content	15
Long Answer Type Questions	3×15=45	Attendance Regularity & Participation	10	Viva-voce	10	Initiative to Learn and Interact (Viva-voce)	10

--	--	--	--	Attendance & Regularity	05	Attendance & Regularity	05
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In $\alpha \times \beta$, α and β stand for total number of questions and marks of each questions, respectively.

Few Examples:

- The academic performance has observed a vertical swing over the years. Several students did excellent performance in academics, research and employment fields.
- Students can pay their attention on the segmented marking system to achieve enhanced score.
- Average daily attendance in theory and practical classes has been improved, since internal marks comprise marks for attendance.

2.5.5 Detail on the significant improvements made in ensuring rigor and transparency in the internal assessment during the last four years and weightages assigned for the overall development of students (weightage for behavioral aspects, independent learning, communication skills etc.)

As the Institute is affiliated to WBUT, it follows the evaluation scheme of the University for awarding Internal Assessment marks and awarding marks in practical subjects. The internal assessment procedure is fair and transparent. The Internal Assessments are properly reviewed by the HODs at the Department level and Academic Convener/Vice Principal/Principal at the Institute level.

Awarding Internal Assessment marks

The Institution conducts two internal assessment tests by a centralised Examination cell for making the examination fair and transparent. The faculty members award the internal marks (Full Marks 30 per each theory paper) according to the guideline of the affiliating WBUT. The HODs review the marks.

Awarding marks in practical subjects

The Institution conducts one end-semester practical examination per subject as per syllabi. Each practical examination is evaluated out of 100 marks which are subdivided into categories as mentioned in the above tables in 2.5.5. Marks Scheme for Laboratory Internal Examination is described in the last table of 2.5.5.

The faculty members evaluate the students' performance in practical subjects over the above categories and award the marks.

2.5.6 What are the graduate attributes specified by the college/affiliating university? How does the college ensure the attainment of these by the students?

Followings are the Graduate Attributes, that is, the qualities, attitudes and temperaments specified by the Institute/ affiliating University:

- To achieve academic excellence and globally competitive ability.
- To develop students' critical and creative thinking ability, and research skills.
- To develop ability to analyse, design and develop solution to a problem
- The Institution aims to make its student work-ready and employable.
- To develop the students as proper Active Citizens.

The Institute believes that by the time the students complete his/her education in this institute, they achieve all these five attributes. The faculty members work hard scrupulously during the entire period of the UG/PG programme to facilitate the students imbibe the important and valuable lessons particularly by lectures, practical sessions, seminars, moral lectures, presentations, project work and industrial training. The faculty members sensitize students towards comprehensive social issues, human rights, and environmental concerns to make them sensitive, responsive and Active Citizen.

2.5.7 What are the mechanisms for redressal of grievances with reference to evaluation both at the college and University level?

Followings are the mechanisms for redressal of grievances with reference to evaluation at the college and University level:

At the college level: Internal Assessment

The evaluated answer scripts of internal examinations are shown to the students so that they draw attention to any mistake in the evaluation, if any, and faculty member takes every step necessary. Any student can approach the concerned faculty easily and can seek clarification for discrepancy, if any. Grievances about evaluation can be brought to the attention of the concerned HOD, if needed to the Registrar, Vice Principal or Principal also, who takes prompt actions to satisfy the grievance of the student.

At the University level: End Semester Examination

A student having grievance against the End Semester Examination results in theory answer paper can apply for Post-Publication Scrutiny/Revaluation (PPS/PPR) or Post Publication Viewing (PPV) by filling in the online forms available in the University website (www.wbutech.net). The students have to

pay the prescribed non-refundable fee to the University for PPS/PPR/ PPV. In case of increase of marks, the previous marks are replaced by increased marks in that subject.

2.6. Student performance and Learning Outcomes

2.6.1 Does the college have clearly stated learning outcomes? If ‘yes’ give details on how the students and staff are made aware of these?

Yes, the Institute has clearly stated learning outcomes for each programme. The Institution attempts to orient the students towards holistic development, setting excellence benchmarks, emphasising towards research and well-building values and ethics.

The Institution has the following learning outcomes:

- Overall personality development of the student.
- Participation in co-curricular, extra-curricular and NSS activities.
- Development of skills like Self-reliance, Team Building, Leadership, Problem solving, Decision making, Positive thinking, Communication, Facing challenges, and getting prepared for the Nation.
- Development of moral and ethical values.
- Promotion of creativity and imagination.
- Excellence in academic performance.
- Development of professional competence.

The students and staff are made aware of these through the following:

Student awareness:

- “Self Introduction Programme” on the 1st day of the start of the programme.
- Orientation programme.
- During the process of Continuous Assessment and Mentorship.
- Through Prospectus, Notice boards and Website.
- At the beginning of every new chapters through introductory lectures.
- Farewell programme.

Staff awareness:

- At the time of joining the Institution.
- Through Departmental/Academic committee meetings and Staff meetings.
- Through circulation of notice, prospectus and website.



2.6.2 Enumerate on how the institution monitors and communicates the progress and performance of students through the duration of the course/programme? Provide an analysis of the students results/achievements (Programme/course wise for last four years) and explain the differences if any and patterns of achievement across the programmes/courses offered.

The respective faculty members provide all checked assignments and answer scripts of class tests to the students. The marks of internal assessments are displayed in notice board almost within seven days from the examination. The results of University Semester examinations are available in the University website and printouts of the University results are displayed in the notice boards of college and hostels. The University publishes the End Semester results generally within 40 to 50 days from the end of semester examination. The Institution displays the percentage of attendance thrice in a semester and counselling measures are taken in case of low attendance by any student. The Students' performance analysis in final year UG/PG programmes in last four years are furnished below:

Year	No. of students appeared		No. of Students passed		Pass Percentage	
	UG	PG	UG	PG	UG	PG
2010-2011	319	NA*	319	NA*	100%	NA*
2011 -2012	296	NA*	295	NA*	99.66%	NA*
2012 -2013	164	04	163	04	99%	100%
2013 -2014	59	09	58	09	98%	100%

* M.Tech programme started from the session 2011-12.

2.6.3 How are the teaching, learning and assessment strategies of the institution structured to facilitate the achievement of the

intended learning outcomes?

The Institution is committed to make the teaching-learning and assessment student-centric. Here all students are valued equally. Institution endeavours to help students achieve their potential. Followings are the teaching, learning and assessment strategies of this institution prepared to facilitate the achievement of the intended learning outcomes:

- All the faculty members of the Institution prepare subject wise Lesson Plan, Logbook and Course Materials before the commencement of a semester.
- The members of each departmental sub-committee assess the quality of Course Materials and assignments prepared by the faculty member of the concerned department and frequent follow up of syllabus covered.
- The members of the academic committees monitors the teaching learning methods for enhancing the quality of learning, teaching and assessments by providing academic leadership for the overall development of excellence in academic practice.
- Internal assessment tests, assignments, viva-voce etc are conducted, which are designed in keeping the expected outcomes of the course in mind.
- The marks obtained in each of the internal examinations and university examinations are analysed, measured and scrutinised with respect to various parameters to improve teaching learning process.
- In addition to the conventional chalk and blackboard system, the faculty, members use OPH/LCD projectors and power point presentation to make the teaching-learning more interesting and motivating.
- Faculty members use visuals like models, charts and photographs to illustrate their lectures.
- Tutorial classes, special classes and remedial classes are arranged by the faculty as well as the external experts to help the students improve themselves constantly.
- Faculty members organise and participate in seminars/workshops/symposia/conferences in the college and other institutions/universities in order to enhance their knowledge and skills and communicate their idea and knowledge effectively to the students by interaction. Students also attend the programmes.
- Debates, Technical Quiz, Ex-tempore, Brain Storming etc are organized to make the students to express their ideas fluently.
- Students are inspired to participate in Model Preparation, Circuit Designing, Paper Writing and Presentations and Software Coding Contests organised within and outside the Institution.
- Feedback of the teaching-learning process and performance of individual faculty member are taken to assess the academic quality of the Institution

and communicative ability, motivational capacity of the faculty. Corrective and preventive measures are taken wherever necessary.

- Students are inspired to participate in Model Preparation, Circuit Designing, Paper Presentations and Software Coding Contests organized in and outside the Institution.
- Students are sent for the industrial visit/training to interact with the industry and to get industrial exposure.
- Training and placements oriented skill development programme like Soft-Skill (Aptitude, HR, GD, PI etc.), English Communication Skill etc. are conducted for progression opportunities and enhancement of employability of the students.
- The IQAC monitors and evaluates the quality of the teaching-learning process, and suggests measures accordingly for further cognizant and catalytic improvement of the quality of the teaching-learning process.

2.6.4 What are the measures/initiatives taken up by the institution to enhance the social and economic relevance (student placements, entrepreneurship, innovation and research aptitude developed among students etc.) of the courses offered?

The Institute takes measures/initiatives to enhance the social and economic relevance (student placements, entrepreneurship, innovation and research aptitude developed among students etc.) of the courses offered by the institute, as follows:

Enhancement of Social and Economic relevance:

- The course curricula of the affiliating WBUT incorporate some subjects which facilitate the students to realize recent tools and methods. The potential recruiters anticipate that student know those subjects in-depth. Some of such subjects along with its subject code (in bracket) are the following: C (CS201), Data Structure (CS302), Software Tools Lab (CS492), Object Orientated Programming and UML (IT401, CS504D), DBMS (CS601, IT601), Computer Networking (CS602, IT602), DBMS (EC705C), Software Engineering (IT603, CS701), Basic Electrical and Electronics Engineering (ES101, ES201), Analog Communication (EC501), Control System (EC503), DSP (EC602), Telecommunication System (EC603), Microelectronics and VLSI Design (EC702), Wireless Communication and Networking (EC701), Electric Circuit Theory (EE301), Electrical and Electronic Measurement (EE402), Thermal Power Engineering (MEEE411), Electric Machine (EE401,EE501), Power System (EE502,EE602), Workshop Practice (ME392), Manufacturing Technology Lab (ME492), Design Practice (ME593,ME693), Advanced Manufacturing

Lab (ME791), Surveying (CE302), Building Material and Construction (CE303), Building Design & Drawing (CE393), Soil Mechanics (CE403), Sensors and Transducer (EI401), Microprocessor and Computer Architecture (EI402), Process Control (EI601, EI703), Principles and Practices of Management (HU511), English Communication (HU101, HU181). These subjects help the students for employability and acquiring entrepreneurship skills.

- Employability skills development and personality development programmes are conducted for the students from 2nd year onwards. Numbers of industrial houses conduct Campus Placements for our students.
- To cater awareness on Entrepreneurship, Institution invites experts from industry.
- Students acquire entrepreneurship skills through industrial training. They observe the technology enabled innovations in the industry that creates economic prosperity. They also acquire the entrepreneurship skills by participating in seminars/symposia/workshops.
- Students are encouraged to use the advanced laboratories and to improve their research aptitude.
- With a view to encourage and inculcate scientific temperament among the students of the Institution, this college has organised an “Education Fair” where the students showcased and demonstrated their talents, innovations and creativity in their respective and inter-disciplinary fields.
- Students are motivated to undergo innovative final year project works. The projects are exhibited in the Project Exhibition programme and most innovative projects are awarded in order to encourage creativity and innovation of the students.

2.6.5 How does the institution collect and analyse data on student performance and learning outcomes and use it for planning and overcoming barriers of learning?

Collection of data on student performance and learning outcomes:

Institute collects the following data on student performance and learning outcomes:

- Result of Internal Assessment tests and End Semester University Examinations.
- Percentage of class attendance.
- Feedbacks from subject teachers and mentors.
- Seminar presentation by students.
- Placement records.

Analysis of data on student performance and learning outcomes:

The Institute analyses each and every data as mentioned above carefully to assess the student performance and learning outcomes.

Planning and steps to overcome barrier of learning:

- The Institute is very strict regarding the students' attendance in the theory and practical classes. Students are encouraged to maintain his/her percentage of attendance equal or above the threshold limit prescribed by the affiliating WBUT in order to avoid disqualification to appear for the End Semester Examination.
- Special classes and remedial classes are arranged by the faculty as well as the external experts for the slow learners and average learners to solve their problems.
- Slow learners and the students who did not do well in Internal Assessment tests are counselled and help them to understand their relative strengths and weaknesses. Special study materials are provided to them.
- Advanced learners are given special care and appreciation. Special home-work/assignments, Advanced textbooks, monographs, conference proceedings, published research articles are given to them to enhance their knowledge.
- Institution ensures timely redress of the grievances of the students.
- The institution offers academic guidance to those students who got backlog in End Semester Examinations. Remedial classes are arranged for them and they are provided with Special study materials including previous year solved question papers of the affiliating WBUT.
- Based on the assessment parameters of the company wishes to conduct campus recruitment, the Institution modify the placement oriented training programme to improve the performance of the students well in advance from the date of recruitment.

The above steps help the students to overcome the barriers of learning.

2.6.6 How does the institution monitor and ensure the achievement of learning outcomes?

The Institute monitors and ensures the achievement of learning outcomes in the following way:

- Faculty members take attendance for every class.
- Faculty members use the entire teaching hour allotted as per time table.
- The assignments are checked and corrected with a short duration of time and record the marks.
- Project works, presentations are assessed critically and suggestions are given to the students.

- Continuous evaluation of students by class teachers and mentoring faculty are conducted to assess the student level and appropriate action is taken.
- The attendance status and progress reports consisting marks in class test are submitted to the academic cell for further action.
- Slow and average learners are counselled periodically.
- Parents are called to attend the guardians' meeting and to meet the concerned faculty member.
- The whole practical courses are continuously assessed. If a student is found lagging in these courses, he/she is given supplementary assistance and supervision.
- Debates, Technical Quiz, Ex-tempore, Brain Storming etc are organised to make the students express their ideas fluently and to monitor the academic progress of each student.
- Members of IQAC and Academic Cell and departmental sub-committee monitor the progress of students' performance continuously and ensure the achievement of learning outcomes.

2.6.7 Does the institution and individual teachers use assessment/evaluation outcomes as an indicator for evaluating student performance, achievement of learning objectives and planning? If 'yes' provide details on the process and cite a few examples.

Yes.

The Institute and individual faculty members use assessment/evaluation outcomes as an indicator for evaluating student performance, achievement of learning objectives and planning.

Details of the process

- The lectures are always interactive. Lecturing turns into "two-way" where the faculty members have the centre of attention on key elements and students are no more passive listeners. During the lecture, faculty members address the questions that come to the mind of the students, ask verbal questions and take feedbacks after the lecture. It helps to evaluate student performance, their satisfaction level and to achieve learning objectives.
- Faculty and technical assistants thoroughly scrutinise the laboratory skills developed by students.
- Class tests, assignments, group discussions, presentations etc methods are used to evaluate the performance of the students.
- Project Assessment helps the students in gaining in-depth practical and technical knowledge.

- Attendance Evaluation to inculcate the regularity, punctuality and academic discipline of the students.
- Individual faculty member defines course objectives and course outcomes to the students. They design lesson plans in conformation with the course objectives so that students the learning objectives.
- At the institutional level, course-wise and subject-wise performance of the students is discussed at length in Academic Cell meetings and course wise and subject wise in staff and department meetings and remedial measures are suggested. Appreciation and prizes are awarded to the course toppers on important occasions.

Any other relevant information regarding Teaching-Learning and Evaluation which the college would like to include

To ensure a student centric learning, the Institute takes the following practices regarding Teaching-Learning and Evaluation process:

- Absolute transparency and clarity is maintained in evaluation, faculty recruitment and administration.
- Conducting revision lectures whenever necessary.
- Conducting orientation programs and bridge courses.
- If a faculty member wants to take any leave or on duty (due to illness/personal reason/academic work/administrative work/sudden emergency), they should inform the concerned authority at least before 10:30AM on the day(s) of absence. Institution makes interim class arrangement centrally on daily basis before classes start. The load of the absentee teacher is adjusted with the other faculty members associated to that stream of students. Leave of absence of the faculty members without prior intimation is not acceptable and never honoured retroactively. As a result no class goes unattended and consequently teachers get several additional provisional-classes, the syllabi are completed in time and in some cases well before the end of semester, which enables the faculty members to conduct revision of lessons.

Criterion III – Research, Consultancy and Extension –

3.1 Promotion of Research

3.1.1 Does the institute have recognized research centre/s of the affiliating university or any other agency /organization?

This institute possesses research centres but does not have any recognition from any agency/organisation yet.

The Institute has applied to the affiliating University for the recognition of its Research Centre, and is awaiting the response from the University.

3.1.2 Does the institute have a research committee to monitor and address the issues of research? If so, what is the composition? Mention a few recommendation made by the committee for implementation and their impact.

Yes.

The Institute possesses a research committee and they are continuously monitoring the existing and emerging research activities of the faculty members as well as students. They have been guiding many projects in UG/PG levels and motivating the students to carry out existing research works during their final year projects.

Compositions of the research committee:

1. Principal,
2. One Professor,
3. Two Emeritus Professor,
4. One Associate Professor.

Recommendation made by the committee:

- Selection and recommendation of faculty member for pursuing PhD.
- Encouraging the Faculty members of each department to organize seminars, workshops and symposia.
- Encouraging the Faculty Members to publish papers in National/International Journals/Conferences.
- Encouraging Faculty Members to undertake such projects for the final year students that can be extended to further research work.
- Encouraging the Faculty Members to publish papers in National/International Journals/Conference.
- Encouraging the Faculty Members to motivate students to select such kind of domain in the final year project that can be carried forward to further research work.

Impact

- Enriched Academic and Research Culture among faculty and students.
- Increased motivation towards research.
- Better teaching learning process.

- Quality improvement of final year project work.

3.1.3 What are the measures taken by the institute to facilitated smooth progress and implementation of research schemes/ projects?

- **Autonomy to the principal investigator**
- **Timely availability or release of resources**
- **Adequate infrastructure and human resources**
- **Time off, reduced teaching load, special leave etc. to teachers**
- **Support in terms of technology and information needs**
- **Facilitate timely auditing and submission of utilization certificate to the funding authorities**
- **Any other**

Followings are the measures taken by the institute to facilitated smooth progress and implementation of research schemes/ projects:

Autonomy to the principal investigator

The institute has given full freedom to the faculty members who can act as principal investigator to carry out any research scheme/project in respect of infrastructure, laboratory, internet, library, etc.

Timely availability or release of resources

This institute ensures timely availability of resources if required for smooth progress of research work. It also ensures timely release of existing resources that is required for research but is retained by some other personnel's/teams.

Adequate infrastructure and human resources

This institute tries to provide adequate infrastructure for smooth progress of research work. Hence it has taken the following measures:

- Setup of efficient and high speed computing laboratory.
- High speed internet (16 Mbps Leased connection)
- Repository of journals.
- E – Access of Library resource 24X7.
- Dedicated Matlab, VLSI Lab, PLC Lab, Programming Lab, Network Lab.

Time off, reduced teaching load, special leave etc. to teachers

This institute takes due care by reducing teaching loads of teachers who are actively involved in research so that they can concentrate more on research activities. They are also restrained from other office works in order to give time off and invest ample time for their research work.

Leaves are granted as and when required to faculty members to attend seminars/conferences/present papers. Sabbatical Leave is also granted to carry out pre PhD coursework. In addition to this a special one day leave is also granted to those faculty members who are on the process of submitting their thesis papers.

Support in terms of technology and information needs

This institute believes that in an engineering college, technical research cannot flourish without utilization of technology. Hence it has taken the following measures to facilitated smooth progress of research works:

- Repository of vivid licensed professional software for simulation/end product development.
- Subscription to various journals which are available at finger tips and e-library access.
- Subscription to Journal search engine.
- High speed computing lab.

3.1.4 What are the efforts made by the institution in developing scientific temper and research culture and aptitude among students?

Followings are the efforts made by the Institute in developing scientific temper and research culture and aptitude among students:

- (1) The Institute, through the Faculty Members, encourages the students to develop the scientific temper and look into any incident in the light of cause and effect.
- (2) The Institute encourages the students to inquire about the latest developments in research and form a taste for research culture.
- (3) The Institute tries to develop right aptitude for research.
- (4) Students are also motivated to participate in different educational fairs to present their innovative ideas.
- (5) The research committee arranges various technical seminars, where the experts are invited from different universities and industries to share their views regarding emerging technologies.
- (6) Organising student competitions like code contest, model presentation, etc.

3.1.5 Give details of the faculty involvement in active research (Guiding student research, leading research projects, engaged in individual / collaborative research activity, etc.)

Followings are the details of the faculty in active research:

Guiding student research

5 faculty members have been guiding student research in th PG level.

Leading research projects

One of the faculty members had applied for a UGC major research project as co-investigator and recently has been recommended by evaluation committee. The institution has taken initiatives for 2f & 12B so that the faculty members can apply for UGC major and minor projects - DST/AICTE/BARC

Engaged in individual / collaborative research activity

Research Collaborative Activities of DIET				
Collaboration with (University Name / Institute name)	Collaboration Through	Collaboration Outcome (Title of paper, Journal, Vol, year of publication)	Name of Faculty Member	Collaborative university /Institute faculty name
Dr. B C Roy College of Engg.	Paper publication	Hasanujjaman, Mehedi Hasan, Dr. Arindam Biswas, "CAD Model of Connected Rectangular Ring Microstrip Antenna for Dual band Operations" Intl. J. of Engineering & Management Research, Vol 3, Issue 6 (2013).	Hasanujjaman	Dr. Arindam Biswas
NIT, Durgapur Dr. B C Roy College of Engg	Paper publication	Hasanujjaman, Habib Mondal, Dr. Arindam Biswas, Dr. A K Bhattacharya "Design of Single Band Rectangular Patch Antenna for Satellite Application and Analysis using different Optimizer available in IE3D" Intl. J. of Engineering & Management Research, Vol 3, Issue 6 (2013).	Hasanujjaman	Arindam Biswas A K Bhattacharya
Dr. B C Roy College of Engg.	Paper publication	Hasanujjaman, Mehedi Hasan, Habib Mondal, Dr. Arindam Biswas "Cut Slotted Microstrip Antenna For Dual Frequency Application And Analysis Using Different	Hasanujjaman	Arindam Biswas

		Optimizer Available In IE3D”		
University of Calcutta	Paper publication	Arindam Biswas, A Ghosal, Hasanujjaman, S. Khan “Low Temperature Magnetotransport in 2D GaN Quantum wells”, Intl. J. Scientific & Engg. Res., Vol 2, (2011)	Hasanujjaman	Arindam Biswas A Ghosal
University of Calcutta	Paper publication	A Biswas, A Ghosal, Hasanujjaman, S Kumar, “One Dimensional GaN Nanowire FETs”, J. Electron Devices, Vol 11, pp 551-553 (2011).	Hasanujjaman	Dr Arindam Biswas Prof. Dr. A Ghosal
University of Calcutta University of Brazil	Paper publication	P.K.karmakar, M.Maiti, S.Mondal, Carlos frederico Angelis, “Determination of window frequency in the millimeter wave band in the range of 58 o north through 45 o south over the globe,” Advances in Space research, Vol.48, pp. 146-151,2011.	Subrata Mondol	Dr. P K Karmakar Carlos frederico Angelis,
University of Calcutta	Paper publication	Karmakar, P.K., Mondal, S. ,Sanda, P.K.,Machado, L.A.T., “Microwave radiometric estimation of excess electrical path-an overview,” International Journal of Geomatics and Geosciences Vol.3, No.3, pp. 628-644, 2013	Subrata Mondol	Dr. P K Karmakar
University of Calcutta	Paper publication	S.Mondal , N.Sk, P.K.Karmakar, “Estimation and Comparasion of Antenna Temperature and Water Vapour Attenuation at Microwave Frequencies over Northern and Southern latitude,”	Subrata Mondol	Dr. P K Karmakar

		International Journal of Innovative Technology and Exploring Engineering, Vol.3, Issue- 7, pp.135-139 ,2013		
University of Calcutta	Paper publication	S.Mondal , A.K.Pradhan,P.K.Karmakar, “Water Vapour Profiling at Southern latitudes by Deploying Microwave radiometer,” International Journal of Advances in Engineering & Technology, Vol. 6, Issue- 6, 2013	Subrata Mondol	Dr. P K Karmakar
University of Calcutta	Paper publication	S.Mondal ,N.Sk,P.K.Karmakar, “Analysis of Water Vapour Weighting Function in the range 58 degree North through 45 degree South over the Globe,” International Journal of Engineering Research and Applications, Vol. 3 , Issue 6, 2013	SubrataMondol	Dr. P K Karmakar
University of Calcutta	Paper publication	S.Mondal ,A.K.Pradhan,P.K. Karmakar, “Estimation of Opacity and Weighting Function in the Range of 58 degree north through 45 degree south,” International Journal of Emerging Technology and Advanced Engineering, Vol. 3, issue. 12 , 2013	Subrata Mondol	Dr. P K Karmakar
NIT , Durgapur	Paper publication	Linear antenna array synthesis with decreasing side lobe & narrow beam with 1.sudipta das 2.mangolik bhattacharjee 3. Atanu sen 4. Durbadal mondal aceee international journal on communications vol. 03, no.01, march 2012	Atanu Sen	Dr. D Mondal
NIT ,	Paper	S J Mandal , K Choudhary,A	SubhraJyoti	Prof.Dr. A

Durgapur University of Florida, US	publicat ion	Biswas, A. K. Bandyopadhyay, A .K. Bhattacharjee and D. Mandal, “Quantum Breathers in Klein- Gordon Lattice: Non-Periodic Boundary Condition Approach”, J. Appl. Phys .Vol. 110, 124106 (2011).	Mandal	K Bhattachar jee K Choudhar y
NIT , Durgapur University of Florida, US	Paper publicat ion	S J Mandal , A Biswas, K Choudhary, A. K. Bandyopadhyay,A .K.Bhattacharjee and D. Mandal, “ THz Response of Split Ring Resonator based on Nonlinear Metamaterials”, J. Electron Devices .Vol. 16, 1321 (2012).	SubhraJyoti Mandal	Prof.Dr. A K Bhattachar jee K Choudhar y
NIT, Durgapur University of Florida, US Dr. B C Roy College of Engg.	Paper publicat ion	S J Mandal , A Biswas, K Choudhary, A. K. Bandyopadhyay,A .K.Bhattacharjee and D. Mandal, “Quantum Breathers in Metamaterials in terms of Klein-Gordon Lattice”, Int.J.Electronics and Communication Technology, Vol 4, Issue 2, pp 428-433 April-June 2013	SubhraJyoti Mandal	Prof.Dr. A K Bhattachar jee K Choudhar y Dr A Biswas
NIT , Durgapur, Dr. B C Roy College of Engg., Dream Institute of Technolo gy	Paper publicat ion	SubhraJyotiMandal , VirRanjan Kumar, ArindamBiswas, A. K Bhandhopadhyay, A K Bhattacharjee, DurbadalMandal ,“Effect of Poling Field and Non- linearity in Quantum Breathers in Ferroelectrics” IOSR Journal of Applied Physics ,Vol 4, Issue 4 (Sept.-Oct 13).	SubhraJyoti Mandal	Prof.Dr. A K Bhattachar jee Dr.A K Bhandhop adhyay Dr A Biswas
NIT, Durgapur	Paper publicat ion	SubhraJyotiMandal , A Biswas, K Choudhary, A. K. Bandyopadhyay,A	SubhraJyoti Mandal	Prof.Dr. A K Bhattachar

University of Florida, US Dr. B C Roy College of Engg.		.K.Bhattacharjee and D. Mandal, “Lifetime of Quantum Breathers for DNA Macromolecules”, J. Electron Devices .Vol. 18, 2013, pp-1575-1581		jee K Choudhary Dr A Biswas
NIT, Durgapur University of Florida, US Dr. B C Roy College of Engg. NSHM college of Engg.	Paper publication	B Mandal, S Adhikari, R Basu, K Choudhary, S J Mandal , A Biswas, A. K. Bandyopadhyay, A .K.Bhattacharjee and D. Mandal, “Role of Coupling of Discrete Breathers in SRR based Metamaterials” Physica Scripta , Vol. 86, pp015601-610 (2012).	SubhraJyoti Mandal	Prof.Dr. A K Bhattacharjee K Choudhary Dr A Biswas B Mandal
NIT, Durgapur University of Florida, US Dr. B C Roy College of Engg. NSHM college of Engg.	Paper publication	B. Mandal , A Biswas , K. Choudhary, S.J. Mandal , A. K. Bandyopadhyay, A. K. Bhattacharjee and D. Mandal , “Nonlinear Effects and Multisolitons in Metamaterials ” Proceedia Technology (Elsevier), Vol. 4, pp. 641-645 (2012).	SubhraJyoti Mandal	Prof.Dr. A K Bhattacharjee K Choudhary Dr A Biswas B Mandal
NIT , Durgapur Dr. B C Roy College of	Paper publication	S Mondal, S J Mandal , A Biswas , D Mandal, A. K. Bhattacharjee, “ A Proposed Cryptographic Algorithm Provides Better Data Security” IFRSA’s	SubhraJyoti Mandal	Prof.Dr. A K Bhattacharjee Dr A

Engg. NSHM college of Engg.		International Journal of Computing, Vol.2, Issue 1, pp. 6-15, Jan. 2012.		Biswas B Mandal
BP Poddar Institute of Ma nagement & Technolo gy	Paper publicat ion	PALASH DAS, B. MONDAL "Extended k-map for minimizing multiple output logic circuits" vol 4, No4, August 13 International Journal of VLSI and communnication system	Palash Das	B Mondal
Bengal Engineeri ng and Science University , Shibpur	Paper publicat ion	"Diametrical Mesh of Tree (D2D-MoT) Routing Architecture for Network-on- Chip" E-ISSN 0976-3945, Vol.III, Issue I, January- March, 2012, pp. 243- 247. International Journal of Advanced Engineering Technology (IJAET	SankarKarmok ar	PrasunGh osal
NIT , Durgapur Dr. B C Roy College of Engg. NSHM college of Engg.	Paper publicat ion	S Mondal, S J Mandal ,A Biswas , D Mandal, A. K. Bhattacharjee, " A Proposed Cryptographic Algorithm Provides Better Data Security" IFRSA's International Journal of Computing, Vol.2, Issue 1, pp. 6-15, Jan. 2012.	Sukanta Mondal	A K Bhattachar jee A Biswas B Mandal
University of north bengal	Paper publicat ion	"Studies on a new dinuclear Co(II)-pterin complex exhibiting reactivity towards phenylalanine and bromobenzene" Transition Metal Chemistry, 32, 737(2007)	MR. BAIDYANAT H GHOSH	Samir Sen
University of north bengal	Paper publicat ion	"synthesis and physicochemical studies of a new molybdenum(IV)-pterin complex undergoing reaction	MR. BAIDYANAT H GHOSH	Samir Sen S Roy

		with trimethylamine N-oxide"ndian journal of Chemistry, 46A, 1585(2007).		
University of north bengal	Paper publication	"synthesis and physicochemical studies on a new copper(II)-pterin complex exhibiting reactivity towards phenylalanine: a functional model of phenylalanine hydroxylase"Annual journal, Dept. of Chemistry, University of North Bengal, Darjeeling-734013, W.B., INDIA, 1, 9(2007)	MR. BAIDYANATH GHOSH	Samir Sen S Roy
North University of China Aliah University	Paper publication	GuiQuan Sun, Sahabuddin Sarwardi, Pallav Jyoti Pal and Md. Sabiar Rahman. The spatial patterns through diffusion-driven instability in modified Leslie-Gower and Holling-type II predator-prey model. Journal of Biological Systems, World Scientific 18(3), 593-603, 2010.	Pallav Jyoti Pal	G. Sun Sahabuddin Sarwardi,
Aliah University Presidency University Visva-Bharati University	Paper publication	Pallav Jyoti Pal, Sahabuddin Sarwardi, Tapan Saha and Prashanta Kumar Mandal. Mean square stability in a modified Leslie-Gower and Holling-type II predator-prey model. Journal of Applied Mathematics & Informatics 29(3-4): 781-802, 2011.	Pallav Jyoti Pal	Sahabuddin Sarwardi Tapan Saha Prashanta Kumar Manda
Presidency University IIT Kanpur	Paper publication	Pallav Jyoti Pal, Tapan Saha, Moitri Sen and Malay Banerjee. A delayed predator-prey model with strong Allee effect in prey population growth. Nonlinear Dynamics,	Pallav Jyoti Pal	Tapan Saha, Malay Banerjee

		Springer 68(1-2):23-42, 2012.		
Presidency University, Cheongju University, South Korea	Paper publication	PallavJyoti Pal, MainulHaque, TapanSaha, and KimunRyu. A predatory commensalism model in a deterministic and a stochastic environment, Dynamics of Continuous, Discrete and Impulsive Systems Series B: Applications & Algorithms, Watam Press 20:1-32, 2013.	Pallav Jyoti Pal	TapanSaha, KimunRyu.
Visva-Bharati University, Scientist D & DIO, National Informatics Centre, Murshidabad District	Paper publication	PallavJyoti Pal, Prashanta Kumar Mandal and Kaushik Kumar Lahiri. A delayed ratiodependentpredator~Uprey model of interacting populations with Holling type III functional response, Nonlinear Dynamics, Springer, DOI 10.1007/s11071-013-1121-3, 2013.	Pallav Jyoti Pal	Prashanta Kumar Mandal Kaushik Kumar Lahiri
Visva-Bharati University,	Paper publication	PallavJyoti Pal and Prashanta Kumar Mandal. Bifurcation analysis of a modified LeslieGower prey-predator model with Beddington-DeAngelis functional response and strong Allee effect. Mathematics and Computers in Simulation, Elsevier 97:123–146, 2014.	Pallav Jyoti Pal	Prashanta Kumar Mandal
Presidency University	Paper publication	PallavJyoti Pal and TapanSaha. Qualitative analysis of a predator-prey system with double Allee effect in prey, Communicated for publication in Mathematical Biosciences, Elsevier.	Pallav Jyoti Pal	Tapan Saha

Visva-Bharati University ,	Paper publication	PallavJyoti Pal, MainulHaque and Prashanta Kumar Mandal. Dynamics of a predatorprey model with disease in the predator, Mathematical Methods in the Applied Sciences, John Wiley & Sons, Ltd, DOI: 10.1002/mma.2988, 2013.	Pallav Jyoti Pal	Prashanta Kumar Manda
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3.1.6 Give details of workshop/ Training programs / Sensitization programs conducted / organized by the institution with focus on capacity building and developing research culture among the staff and students.

Following are the details of workshop/Training programs/Sensitization programs conducted/organized by the institution:

Activity Organized For	Faculty	Students
Workshops	4	4
Training Programs (STTP/QIP)	9	03(Ardent, Purple Leaf, Micro Pro, CORE Technology, 4 th year training)
Sensitization Programs	1	1

3.1.7 Provide details of prioritized research areas and the expertise available with the institution.

Serial No.	Prioritized research area	Expertise Faculty
1	Image processing and Cryptography	Mr. Sukanta Mondal
2	Bio Informatics, Nonlinear communication, Data mining	Mr. Subhrajyoti Mandal
3	VLSI Testing	Miss. Taniya Sahana
4	Testing and Synthesis of Reversible circuits, Quantum Computing	Mr. Palash Das
5	Wireless Sensor network	Mr. Rajesh Mukherjee
6	Image Processing and Pattern recognition	Mr. Showmik Bhowmik
7	Microstrip Antenna & Digital System Design Using FPGA	Mr.Hasanujjaman

8	Remote Sensing & Weather Forecasting	Mr.Subrata Mondal
9	VLSI System Design	Mr.Atanu Sen
10	VLSI System Design	Mr. Prasit Kr. Bandyopadhyay
11	Nonlinear System Design	Mr.Suman Saha
12	Broadband Antenna System	Mr.Rudra Prasad Biswas
13	Reliability, Availability and maintainability of material handling equipment in industry	Mr. Sanjoy Chattoraj
14	Refrigeration and Air Conditioning	Mr.Someshwar Chowdhury
15	Power system	Mr. Koustav Dasgupta
16	Non-linear Dynamics, Mathematical Ecology, Delay Differential Equation, Chaos	Dr. Pallav Jyoti Pal
17	Material Science and Nano Technology	Dr.Tanmoy Das
18	Chemical processing of textile and other polymeric material	Prof. Dr. Chakradhar Datta
19	Power Electronics	Prof Dr P C Sen
20	Computer Hardware and Communication Engineering	Prof Dr A K Bandyopadhyay
21	Cryptography	Prof Dr R Ghosh
22	Satellite Communication	Mr. Pritam Singha Roy
23	Material Science	Mr. Baidyanath Ghosh

3.1.8. Enumerate efforts of the institution in attracting researchers of eminence to visit the campus and interact with teachers and students?

This institution has always given due importance for research related activities. Now in order to motivate the faculty members and students to indulge in research related activities and to make them aware of the recent trends in technological advancements and its organic connection with the research world, this institution has followed the steps as given hereunder:

- Arrange workshops, symposia, seminars etc. regularly.
- Eminent experts in relevant departments are invited as speakers/guest lecturers/resource personnel for the aforesaid purposes.
- Seminars/Conferences are also arranged in view of faculty improvement programme where stress is given on jotting good research proposals.
- Academicians from other institutions/Govt. organizations/Industries are also invited for sharing of innovative ideas/recent research domains/unexplored research domains, which can directly or indirectly affect towards the betterment of human society.

3.1.9 What percentage of the Faculty has utilized Sabbatical Leave for research activities? How has the provision contributed to improve the quality of research and imbibe research culture on the campus?

3% of faculty has utilized Sabbatical Leave for research activities.

Contribution to improve the quality of research and imbibe research culture on the campus.

This institution has provision for sabbatical leave in respect of research goal and has already provided the same to some of the faculty member to carry out his research work and Pre-PhD coursework. In addition to this, the institution also has certain facilities which eventually benefit the faculty members to carry out their research activities. The facilities are:

- This institution has weekly off – days on Thursday and Friday, which are among the working days of other institutions or organizations.
- In addition to the above stated off days the faculty members are also given one day special leave on the day he/she desires to carry out research works. So, collectively the faculty members are given three days in a week to carry out research related activities.
- The faculty members are also granted leave to participate in seminars, workshops or conferences to present papers or to attend the same as and when required with full financial support.
- Thus all these facilities ultimately contribute to improve the research quality and culture of the college.

A table is provided below as reference of those who have enjoyed sabbatical leave.

Name of Faculty Member	Purpose of Leave	Status of Work (Ongoing/Completed)	Duration
Arindam Biswas	Pre – PhD Coursework	Completed	July ,2012 to December, 2012
Dr Pallav Jyoti Pal	Pre – PhD Coursework	Completed	October,2010 to September ,2011
Dr Pallav Jyoti Pal	PhD work	Completed	February, 2013 to July,2013
Mr A k Mondal	PhD work	Ongoing	May,2013 to Jun,2014

3.1.10. Provide details of the initiatives taken up by the institution in creating awareness/advocating/transfer of relative findings of research of the institution and elsewhere to students and community (lab to land).

This institute carried out a research on non-autonomous electronic oscillator with cubic nonlinearity and integrators in order for chaotic phenomena to be possible. A smooth nonlinearity was used as a nonlinear element, described by a cubic polynomial. The circuit was realised with two integrators using Operational Amplifiers (Op-Amps). Some bifurcating phenomena and chaotic dynamics were observed experimentally at the laboratory. Comparing observed and the computer simulated results of the dimensionless model of this system, yielded satisfactory results. Thus, finding of research was taken to the students of the Institute.

3.2 Resource Mobilization for Research

3.2.1 What percentage of the total budget is earmarked for research? Give details of major heads of expenditure financial allocation and actual utilization.

As stated earlier this institution started its journey in the year 2001. Since then this institution has given prime importance to the teaching learning process. Having accomplished that milestone this institute started giving due importance to research activities. We have ignited the same and have already made a descent approach in this direction. So, allocation of fund in this segment was purely on need basis. However we are planning for separate fund allocation in this segment during annual budget framing.

3.2.2 Is there a provision in the institution to provide seed money to the faculty for research? If so, specify the amount disbursed and the percentage of the faculty that has availed the facility in the last four years?

Yes, this institution always provides seed money to the faculty for research as and when required. A table stating the same may be referenced below.

No	Name of Faculty member	Dept.	Duration	Place of function	Fund released by Institute
1	SubhraJyotiMandal	CSE	12.11.13	Conference /Paper Presentation	Rs 2500
2	Rajesh Mukharjee	CSE	12.02.13	Conference/ Paper Presentation	Rs 5000
3	Palash Das	CSE	01.09.14	Conference/	Rs.4000

				Paper Presentation	
4	Bikram Dutta	EE	20.11.12	Conference/ Paper Presentation	Rs.5000
5	Hamid Islam	IT	10.9.13	Workshop	Rs 300
6	DrPallavJyoti Pal	Math	12.02.14	Conference /Paper Presentation	Rs 2000
			25.02.14	Conference /Paper Presentation	Rs 4500
			19.03.14	Conference /Paper Presentation	Rs 200
7	Dr. Arindam Biswas	ECE	11.6.13	Conference /Paper Presentation	Rs 4000
			28.07.13	Conference /Paper Presentation	Rs 6000
			17.9.11	Conference /Paper Presentation	Rs 6000
			20.11.12	Conference /Paper Presentation	Rs 5500
			27.11.12	Conference /Paper Presentation	Rs 4500
			04.2.13	Conference /Paper Presentation	Rs 1000

Percentage of faculty who have availed this facility is 7%

3.2.3 What are the financial provisions made available to support student research projects by students?

Finance is always granted to students as and when required to support student for their final year projects. Following are the provisions made available to support research projects by students:

- Provision of granting funds necessary for research projects of PG students.

- Provision of granting funds for paper presentation or to attend any workshops or allied activities.

3.2.4. How does the various departments / units / staff of the institute interact in undertaking inter-disciplinary research? Cite examples of successful endeavours and challenges faced in inter-disciplinary research.

The staffs of the institute interact in undertaking inter-disciplinary research through the collaborative activities as stated in 3.1.5.

Successful Endeavours

The following are table of successful endeavours:

Serial No	Faculty Name	Native Department	Outcome Domain
1	Subhra Jyoti Mondal	Computer Sc and Engg Dept	Non – Linear Communication in DNA (Bio-informatics)
2	Dr Pallav Jyoti Pal	Mathematics	Biological Ecosystem

Challenges Faced in Inter-Disciplinary Research

Following are the challenges faced in inter-disciplinary research:

- Time elongation for dependency of data from other laboratories.
- Frequent travelling to other institution laboratories.
- Communication gap between inter domain scholars elongated the outcome of research.

3.2.5. How does the institution ensure optimal use of various equipment and research facilities of the institution by its staff and students?

The institute ensures optimal utilisation of its resources, like laboratories and voluminous library for research in the following way:

- Admirable state of the art computing facility and ICT which the students and staff can access at any time they wish to.
- Web connectivity of 16Mbps leased line with Wi-Fi facility to get net access from anywhere.
- All the computers are connected through LAN for ease of information share.
- Wireless web connectivity (Wi-Fi) in hostel for students.
- Repository of licensed and free software, required to carry out research work.
- Various journal/e-book subscriptions which are available through internet at any time and from anywhere.
-

3.2.6 Has the institute received any special grants of finances from the industry or other beneficiary agency for developing research facility? If 'Yes' give details.

No.

Still we have not received any special grants or finance from industries for the development of the research facilities.

3.2.7 Enumerate the support provided to the faculty in securing research funds from various funding agencies, industry and other organizations. Provide details of ongoing and completed projects and grants received during the last four years.

The institute provides support to the faculty in securing research funds from various funding agencies, industry and other organisations in the following ways:

- Encouraging Faculty Members to apply to organisations of repute for research proposals. One of the faculty members had applied for a UGC major research project as co-investigator and recently has been recommended by evaluation committee.
- The institute took every initiative possible to apply for 2f & 12B so that the faculty members can apply for UGC major and minor projects - DST/AICTE/BARC.

3.3. Research facilities

3.3.1. What are the research facilities available to the students and research scholar within the campus?

Followings are some of the research facilities available within the campus:

- ✓ Advance computing facility and ICT.
- ✓ Web connectivity of 16Mbps leased line.
- ✓ All the computers are connected through LAN.
- ✓ Wireless web connectivity (Wi-Fi).
- ✓ Repository of licensed and free software, required to carry out research work.
- ✓ Dedicated research room furnished with high performance computers, printers, scanners, internet connection, etc.
- ✓ Dedicated Matlab, VLSI Lab, PLC Lab, Programming Lab, Network Lab.
- ✓ Frequent Seminars on emerging technologies are arranged from time to time to update faculty members and students for the same.
- ✓ Available infrastructure with state of the art computing laboratories, conference room, video conferencing facility, etc.
- ✓ E – Access of Library resource 24X7.

These facilities are accessible to the students as well as who are involved in research work.

3.3.2 What are the institutional strategies for planning, upgrading and creating infrastructural facilities to meet the needs of researchers especially in the new and emerging areas of research?

- The institute has a plan to upgrade the present infrastructure and add more facilities for the benefits of research work.
- The institute has developed a dedicated lab for research activities.
- Up gradation of e-journals for various fields.

3.3.3. Has the institute received any special grants of finances from the industry or other beneficiary agency for developing research facilities?? If 'Yes', what are the instruments / facilities created during the last four years.

Still we have not received any special grants or finance from industries for the development of the research facilities.

3.3.4. What are the research facilities made available to the students and research scholars outside the campus / other research laboratories?

The institute has adequate state of the art infrastructure for research activities. The institute makes this facility available to the students and research scholars. Thus whenever necessity will arise required actions will be taken.

3.3.5. Provide details on the library/ information resource center or any other facilities available specifically for the researchers?

Following are the details on the library/information resource center facilities available specifically for the researchers:

- The central library is specifically equipped with Journals and e-journals for the researchers to get the required information for their research work.
- In addition to this facility all kinds of information are available both through intranet domain and in web domain via proper validation through username/password. So, researchers/students can access the repository of the central library at their finger tips.

3.3.6. What are the collaborative researches facilities developed / created by the research institutes in the college? For ex. Laboratories, library, instruments, computers, new technology etc.

So far we do not have any collaboration of such type.

3.4. Research publications and award

3.4.1 Highlight the major research achievements of the staff and students in terms of

- **Patents obtained and filed (process and product)**
- **Original research contributing to product improvement**
- **Research studies or surveys benefiting the community or improving the services**
- **Research inputs contributing to new initiatives and social development**

The major research achievement of the staff and students are as follows:

Patents obtained and filed (process and product)

NIL

Original research contributing to product improvement

Following are the research that contributed to product improvement

- Dr P C Sen carried out research on “Special Battery Charger for rail ways”
- Dr P C Sen carried out research on “Special Power Supply” for railway and Post & Telegraph.
- Dr P C Sen carried out research on “Special Rectifier” for Electric Supply Corporation.

Research studies or surveys benefiting the community or improving the services

Mr A K Mondal studied the process of recycling used rubber which can benefit the community by controlling pollution.

Research inputs contributing to new initiatives and social development

Mr A K Mondal is on the process of submitting his research on development of special polymer (“Dynamically vulcanized thermoplastic based on some speciality rubbers and polyolefins”) that can be used in various segments like Modulated item, Engineering Plastics, Paints etc.

3.4.2. Does the institute publish or partner in publication of research journal(s)? If ‘yes’, indicate the composition of the editorial board, publication policies and whether such publication is listed any international database?

As we have just initiated our focus on the research aspect therefore we don’t have such kind of publication.

3.4.3. Give details of publications by the faculty and students:

- **Publication per faculty**

Serial Number	Faculty Name	Number of Publication
1	Hasanujjaman	5
2	Subrata Mondal	6
3	Prasit Kumar Bandyopadhyay	1
4	Atanu Sen	1
5	Sukanta Mondal	1
6	Subhra Jyoti Mandal	9
7	Palash Das	3
8	Sankar Karmakar	1
9	Baidyanth Ghosh	3
10	Dr. Pallav Jyoti Pal	8
11	Dr. Tanmoy Das	6

- **Number of papers published by faculty and students in peer reviewed journals (national/international)**

Serial Number	Faculty Name And Student Name	No of Paper published In International. or National Journal
1	Subhrajyoti Mondal, Arindam Biswas and D Mondal(Student)	2

- **Number of Publications listed in International Database (for Eg: Web of Science, Scopus, Humanities International Complete, Dare Database – International Social Sciences Directory, EBSCO host, etc.)**

Serial Number	Faculty Name	Publications listed in International Database
1	Subhra Jyoti Mandal	9
2	Subrata Mondal	6

3	Prasit Kumar Bandyopadhyay	1
4	Atanu Sen	1
5	Sukanta Mondal	1
6	Hasanujjaman	5
7	Palash Das	3
8	Sankar Karmakar	1
9	Baidyanth Ghosh	3
10	Dr. Pallav Jyoti Pal	8
11	Dr. Tanmoy Das	6

- **Monographs**

Nil

- **Chapter in Books**

NIL

- **Books Edited**

NIL

- **Books with ISBN/ISSN numbers with details of publishers**

Name	Books with ISBN/ISSN numbers
Subhra Jyoti Mandal	Processing, Properties & Applications of Ferroelectric Material (ISBN- 978-3-659-17252-6)

- **Citation Index**

Faculty Name	Citation Index
Subhra Jyoti Mandal	10
Dr. Pallav Jyoti Pal	18

- **SNIP**

NIL

- **SJR**

NIL

- **Impact factor**

Faculty Name	Highest Impact Factor
Subhra Jyoti Mandal	2.185

Palash Das	0.3
Dr. Pallav Jyoti Pal	2.4
Subhrata Mondal	1.173
Baidyanth Ghosh	1.402
Dr. Tanmoy Das	2.26

- **h-index**

Faculty	h-index
Subhra Jyoti Mandal	2
Dr. Pallav Jyoti Pal	3

3.4.4 Provide details (if any) of

- **research awards received by the faculty**
- **recognition received by the faculty from reputed professional bodies and agencies, nationally and internationally**
- **incentives given to faculty for receiving state, national and international recognitions for research contributions.**

1. Prof. Dr. Chakradhar Datta (Principal) had worked as a member of supervisory committee of NBA.
2. Mr. Someshwar Chowdhury (Assistant professor of ME dept.) is a member of *Institution of Engineers (India)*.
3. Dr. P C Sen (Professor of ECE dept.) is a senior member of *IEEE* and he also has the membership of *Institution of Engineers (India)*. He has the fellowship of *Institution of Electronics and Telecommunication Engineers(India)*.
4. Dr Pallav Jyoti Pal (Vice-Principal) has been selected as reviewer of the following journals:
 - A. Applied Mathematics and Computation – Elsevier
 - B. Nonlinear Dynamics – Springer
 - C. Abstract and Applied Analysis – Hindawi Publishing Corporation
 - D. Discrete Dynamics in Nature and Society – Hindawi Publishing Corporation
 - E. International Journal of Bifurcations and Chaos – World Scientific Publishing Co
 - F. Communications in Nonlinear Science and Numerical Simulation – Elsevier

3.5. Consultancy

3.5.1. Give details of the system and strategies for establishing institute - industry interface?

We are on the process of creating a repository of industries and eminent experts to be contacted in near future for further interaction. We are in continuous touch with the eminent scholars and personnel's and hope for some sort of tie up shortly.

3.5.2 What is the stated policy of the institution to promote consultancy? How is the available expertise advocated and publicized?

As already stated this institute has just initiated its focus on research domain. So, at present we are not in a platform to start consultancy. However in due course of time when our research activities will gain momentum consultancy will pop up.

3.5.3 How does the institution encourage the staff to utilize their expertise and available facilities for consultancy services?

This institution always encourages its staff to utilize their references and contacts to bring outside projects. At present the institution has taken initiatives for 2f & 12B so that the faculty members can apply for UGC major and minor projects - DST/AICTE/BARC.

3.5.4 List the broad areas and major consultancy services provided by the institution and the revenue generated during the last four years.

As already mentioned we are yet to start consultancy service.

3.5.5 What is the policy of the institution in sharing the income generated through consultancy (staff involved: Institution) and its use for institutional development?

The policy of the institution in sharing the income generated through consultancy is 60:40 with respect to staff involved and institution respectively. The 60% of the income generated through consultancy is retained by the staff involved as token of reward and the rest 40% is retained by the institution which is used for further infrastructural development of the same.

3.6 Extension Activities and Institutional Social Responsibility (ISR)

3.6.1 How does the institution promote institution-neighbourhood-community network and student engagement, contributing to good citizenship, service orientation and holistic development of students?

The institute promotes institution-neighbourhood-community network and student engagement, contributing to good citizenship, service orientation and holistic development of students, as follows:

Institution-Neighbourhood-community network and student engagement

- The institute have a lab where the local people as well as others can test their water for arsenic.
- The institute organizes blood donation camp occasionally and sometimes under some banner of NGO's too.
- The institute have participated in an education fair under the big banner of "Basantapur Education Society" where we delivered a poster presentation for do's and don'ts in case of snake bites keeping in view of rural illiterate peoples.

Contributing to good citizenship

- The institute have planted huge number of saplings both within and outside the campus. The forest office helped us by providing huge number of saplings and seeds.
- The institute have organized awareness programme where we tried to cast light on the illiterate people on HIV myths. We tried to make them understand that HIV doesn't mean AIDS. It can be dealt with medication to prolong life span to a great extent, prevent contamination of offspring's etc.
- The institute have organized awareness programme on Malaria where we tried to literate people about the cause and possible carriers of malarial virus. We tried to convince them not to allow water to get logged for long, use mosquito nets while sleeping, not to neglect any kind of fever etc.

Service orientation and holistic development of students

- The institute have also organized awareness programme on Thalassemia where we tried to make our students gain knowledge about the possibilities of in born thalassemia – Trait/Carrier/Minor and Major. We also conducted a process of free "Thalassemia Screening" for our students.
- The institute undertook awareness programme for the illiterate superstitious people where its students tried to cast the light of scientific knowledge on the traditional beliefs of the masses.

3.6.2 What is the Institutional mechanism to track students' involvement in various social movements/activities which promote citizenship roles?

Followings are the institutional mechanism to track students' involvement in social movements/ activities, which promote citizenship roles:

- (1) The Institute arranges to keep record of the activities of the students (which promote citizenship roles) and rewards them at the Annual day.
- (2) The Institute keeps track of the organisations Education Fair, Health Awareness Programmes, Sapling Plantations etc by the students.

- (3) The Dean, Students Affairs encourages the students to take active part in these activities to promote citizenship role; and keep record of their activities.

3.6.3 How does the institution solicit stakeholder perception on the overall performance and quality of the institution?

The Institute solicit the stakeholders' perception on the overall performance and quality of the Institute, as stated below:

- Student feedback is taken at each semester which are methodically analysed to find the perception of the student about the performance and quality of the Institute.
- Parent-Teacher meetings are conducted at regular intervals. In this process we try to sort out the perception of the parents about the overall performance and quality of the Institute.
- The perception of the industry about the performance and quality of the Institute is ascertained by analysing the impressions gathered at the time industry visit, campus recruitment etc.
- The perception of the community about the performance and quality of the Institute is ascertained by the interactions at gatherings like Education Fair, Health Awareness Camps, Sapling Plantations etc.

3.6.4 How does the institution plan and organize its extension and outreach programs? Providing the budgetary details for the last four years, list the major extension and outreach programs and their impact on overall development of students.

The Institute plans and organises its extension and outreach programmes, as follows:

Planning and organising extension and outreach programs

At the beginning of every educational year, the Institute plans the extension and outreach programmes; and organises these in collaboration with the managing Society.

List of the major extension and outreach programmes for the last four years

- Education Fair,
- Distribution of Books and cloths,
- Health Awareness Camps,
- Environment Awareness Camps,
- Planting of saplings,

- Awareness Camps about Superstitions.

The fund required for such programmes are provided by the managing Society, as and when requisitioned from the Institute.

Impact on overall development of students.

The students become good citizen.

The students feel good for translating lab findings to community.

The students, themselves, become aware about the necessity of health care and bad effects of superstitions.

Students who are specifically from the urban background do not have any experiences/realisation regarding the realities of the under developed rural areas. Executing such kind of events gives them immense opportunity to face the real world society from the grass root level. So, this kind of activities enhances their maturity level and has better understanding of the need to serve the society.

3.6.5 How does the institution promote the participation of the students and faculty in extension activities including participation in NSS, NCC, YRC and other National / International agencies?

This promotes the participation of the students and faculty in extension activities, as follows:

- In the centralised approach the Institute has “Dean – of – student affairs” who takes care of participation of students in the extension activities. The Principal takes care that the faculty members take active interest in the extension activities and co-operate with each other.
- The faculty and students of the Institute take part in NSS activities.
- The faculty and students organise the Education Fair, Distribution of books, Distribution of cloth, and Health Awareness Camps.

3.6.6 Give details on social surveys, research or extension work (if any) undertaken by the college to ensure social justice and empower students from under-privileged and vulnerable sections of society?

Yes.

The Institute, in collaboration with managing Basantapur Education Society, and sister organisation Education College undertook a Survey to ascertain the social justice and empowerment of the students from the village of Basantapur.

3.6.7 Reflecting on objectives and expected outcomes of the extension activities organized by the institution, comment on how they complement students’ academic learning experience and specify the values and skills inculcated.

(Reflecting on the objectives and expected outcomes of the extension activities organised by the Institute,) followings are the comments on how they complement students' academic learning experience and specify the values and skills inculcated:

Complementing students' academic learning experience

The learning experience of the students, specially about the learning of Environment and Value & Ethics, is complemented when they themselves prepare the lessons for occasions like Education Fair.

The values and skills inculcated

The values of understanding others properly and the skill of expressing a topics lucidly and very clearly were inculcated in the students.

Students who are particularly from the urban background have little/no – knowledge about the darkness of illiteracy and superstition deeply rooted in the remote rural areas. Executing such kind of active activities has twin benefits which are given below:

- ✓ People of the remote rural areas who are illiterate and engulfed with superstitions are enlightened with the lime light of scientific knowledge.
- ✓ Students who are involved and taking active role in such kind of noble activities also comes to know the reality of the rural areas that comprises the majority of the society, which ultimately enhances the maturity level of the ward and thereby motivates them to work for humanity and society.

3.6.8 How does the institution ensure the involvement of the community in its reach out activities and contribute to the community development? Detail on the initiatives of the institution that encourage community participation in its activities?

The Institute ensures the involvement of the community in its reach out activities, contributes to the community development, and the detail of the initiatives of the institution that encourage community participation in its activities, are as follows:

Ensuring the involvement of the community in its reach out activities

The Institute conducted survey about the backwardness of the local members of the community. It helped the community to be open to the faculty and students of the Institute. So they willingly took part in the extension and out-reach activities of the Institute.

Contribute to the community development

The survey of the Institute about reasons for the backwardness of the local members of the community, its Education Fair, its Health Awareness Camps, its Distribution of books etc contributed to the community development.

Initiatives that encourage community participation in its activities

The initiatives like the survey about the reasons of their backwardness, the awareness about the superstitions, the Education Fair etc encouraged the community to take part in the extension and out-reach activities.

3.6.9 Give details on the constructive relationships forged (if any) with other institutions of the locality for working on various outreach and extension activities.

Followings are some of the constructive relationships forged (if any) with other institutions of the locality for working on various outreach and extension activities:

- The Institute has established constructive bonding with a NGO named Red Ribbon Club for Blood Donation activities.
- The Institute has arranged a free check up of all students of this institution for “Thalassamia screening” in collaboration with “Murshidabad Medical College & Hospital”.
- The Institute has been organising the Education Fair for years, in collaboration with sister institute, Education College and managing Society, Basantapur Education Society.

3.6.10 Give details of awards received by the institution for extension activities and/contributions to the social/community development during the last four years.

The institute was awarded for playing active role in Education Fair organised by the managing Society. This Institute in its stall displayed various engineering models, software quiz programme, poster presentation for dos and don'ts in case of snake bites, awareness programmes for the illiterate people wrapped with superstition etc. Various other institutions also participated in this manner. Judging all round activities this institution was awarded the first place.

3.7 Collaboration

3.7.1 How does the institution collaborate and interact with research laboratories, institutes and industry for research, staff exchange, sharing facilities and equipment, research scholarships etc.

The institute collaborates and interacts with research laboratories, institutes and industry for research, staff exchange, sharing facilities and equipment, research scholarships etc, as follows:

We have collaborations with many elite Institutes and Universities of this state like Jadavpur University, Calcutta University, Indian Institute of Engineering

Science and Technology (Shibpur), National Institute of Technology (Durgapur) etc.

Our Faculty members are involved in innovative research and they are continuously working with the Professors of those Universities.

Our students are in touch with those Professors through the Faculty members of respective departments which are continuously stimulating the motivations of higher studies and researches among the students.

3.7.2 Provide details on the MoU/ collaborative arrangements (if any) with institutions of national importance/ other universities/ industries/ Corporate entities) etc. and how they have contributed to the development of the institution.

Followings are the details on the MoU/ collaborative arrangements with institutions and the contribution of that to the development of the institution, are, as follows:

MoU/ collaborative arrangements

- We have collaboration with Wipro mission 10x programme where Faculty members were enriched with skilled teaching learning process.
- We have MoU with TATA Consultancy Services which provides e-training for the students and also students get benefited with campus drive programme.
- We have MoU with TCS ION which conducts various online examinations. They pay us handsomely for using our state-of-the art infrastructure. This fund is utilized for further development of the institution.
- We have MoU with Govt. College of Engineering and Textile Technology, Berhampore for jointly organizing various conferences/seminars/workshops/Faculty Exchange programmes. We have already conducted a National Seminar titled “Applied Non-linear Dynamics and Chaos -2014” where eminent speakers from various part of the country visited our campus and enriched the knowledge of our staff and students.
- We have MoU with Ardent Computech Pvt. Ltd. which is a very good training and development company. Even in the vacation they arrange special classes and trainings for the students to improve the skills of the students.
- We also have MoU with PurpleLeap (Pearson & Educomp Joint Venture Company), leading training institute who has arranged many knowledge sharing sessions for the students.

Contribution of these activities to the development of the institution.

Institutional development resulted from these activities are, as follows:

- The capacity of the institute to encourage research activities has increased and this has given immense opportunity for smooth progress of research.
- Collaboration with Wipro Mission 10X programme has yielded better teaching learning process and increased communication skills of the teachers.
- MoU with TATA Consultancy Services resulted in better campus drive programme and better technical skills of students.
- MoU with TCS ION resulted in up gradation of existing computer laboratories from the infrastructural point of view.
- MoU with Govt. College of Engineering and Textile Technology, Berhampore resulted in conducting seminars and conferences of better repute. Faculty members are also enriched by the faculty exchange programme.
- MoU with Ardent Computech Pvt. Ltd. and PurpleLeap (Pearson & Educomp Joint Venture Company) benefited our students to brush up their technical skills and make them ready for the industry.

3.7.3 Give details (if any) on the industry- institution community interactions that have contributed to the establishment / creation / up-gradation of academic facilities, student and staff support, infrastructure facilities of the institution viz. laboratories/library/new technology/placement services etc.

Industry-Institution community interactions that have contributed to the establishment / creation / up-gradation of academic facilities, student and staff support, infrastructure facilities of the institution are as follows:

Name of the company	Area of consultancy	Income Generated
Murshidabad Paper Mill, Dumkal (Hitapur)	Energy Audit, Suggestion for Power factor correction.	Consultancy services are provided in lieu of industrial exposure of our students
Shefali Rice Mill, Dumkal (Hitapur)	Electrical Panel and wiring Design.	Consultancy services are provided in lieu of industrial exposure of our students
“Smart” Brick Field,Dumkal (Juginda)		Consultancy services are provided in lieu of industrial exposure of our students

3.7.4 Highlighting the names of eminent scientists/participants who contributed to the events, provide details of national and international conferences organized by the college during the last four years.

As we are highly focusing on the research activities presently, we have just arranged a National Seminal cum Symposium named “Applied nonlinear dynamics and chaos” where several eminent Scientist have shared their views with us. Some of them are as follows-

1. Prof. Dr. Lakshmanan Muthusamy, Centre for Nonlinear Dynamics, Bharathidasan University, Tiruchirapalli.
2. Prof. Dr. Santanu Ray, Visva Bharati, Santiniketan, WB.
3. Prof. Dr. Bimal Kumar Mishra, BIT, Ranchi.
4. Dr. K Murali, Anna University, Chennai.
5. Dr. Malay Banerjee, IIT Kanpur.
6. Dr. Tapan Saha, Presidency University, Calcutta.
7. Prof. Dr. R K Upadhyay, ISM Dhanbad.
8. Prof. Dr. Subenoy Chakraborty, Jadavpur University.
9. Dr. Dibakar Ghosh, ISI, Kolkata.
10. Prof. Dr Syamal Kumar Dana, IICB, Kolkata.
11. Dr. Tanmoy Banerjee, The University of Burdwan, Burdwan.
12. Prof. Dr Joydev Chattopadhyay, ISI Kolkata.
13. Prof. Dr Sabyasachi Bhattacharya, ISI Kolkata.
14. Dr. Debaldev Jana, Visva Bharati, Santiniketan, WB.

3.7.5 How many of the linkage/collaborations have actually resulted in formal MoUs and agreements? List out the activities and beneficiaries and cite example (if any) of the established linkages that enhanced and/or facilitated –

- a) Curriculum development/enrichment
- b) Internship/ On-the-job training
- c) Summer placement
- d) Faculty exchange and professional development
- e) Research
- f) Consultancy
- g) Extension
- h) Publication
- i) Student Placement
- j) Twinning programmes
- k) Introduction of new courses
- l) Student Exchange
- m) Any other

The institute has made four MoU's for the betterment of the students in various aspects including research. They are as follows-

- MoU with PurpleLeap (Pearson & Educomp Joint Venture Company) for making students industry ready.
- MoU with Ardent Computech Pvt. Ltd. for providing latest technological skills to students and make them ready for the campus recruitments.
- MoU with TATA Consultancy Services which has arranged e-training for the students that has helped the students a lot.
- MoU with Govt. College of Engineering and Textile Technology for organizing various conferences/seminars/workshops.

3.7.6 Detail on the systematic efforts of the institution in planning, establishing and implementing the initiatives of the linkage/collaborations.

Followings are the detail on the systematic efforts of the institution in planning, establishing and implementing the initiatives of the linkage/collaborations:

Systematic efforts of the institution in planning the initiatives of the linkage/collaborations

The research committee reviews the research domains of various Faculty Members. Based on this review and request from the researchers the committee takes initiatives to collaborate with the concerned organizations where such kind of relevant research activities are going on.

Systematic efforts of the institution in establishing the initiatives of the linkage/collaborations

The research committee explores the scope of collaboration with the organizations. If appropriate feasibility is found then the institute initiates for formal MoUs' or collaboration.

Systematic efforts of the institution in implementing the initiatives of the linkage/collaborations

In the implementation phase the researchers can migrate to the laboratories of the collaborators for smooth research progress. This results into publishing of journals or development of products.

CRITERION IV: INFRASTRUCTURE AND LEARNING RESOURCES

4.1 Physical Facilities

4.1.1 What is the policy of the Institution for creation and enhancement of infrastructure that facilitate effective teaching and learning?

The policy of the Institution for creation and enhancement of infrastructure is that, the Institute will create and enhance the infrastructure that will facilitate effective teaching and learning.

This Institute was established in 2001 under the management of the Basantapur Education Society(BES). A renowned educationist and social worker Dr Nazrul Islam IPS and D Litt was on the helm of the Basantapur Education Society as Chairman with advisors like renowned Professor Dr P C Sen, formerly Head of the Department of Electronics & Communication Engineering, Department at Jadavpur University and Prof Dr Aditya Kr Bandyopadhyay, formerly Head of the Department of Computer Science and Engineering at Calcutta University.

This Institute was able to adopt timely long term policy for infrastructural development step by step so that the students enjoyed all facilities for becoming quality engineers so that industrial houses may feel proud to have them as their employees. To achieve this target the Basantapur Education Society undertook the following activities.

- In 2001 BES took a bank loan of Rupees Thirty Million only from the Bank of Baroda and developed primary infrastructural facilities like college building and laboratories.
- From 2001 to till date the BES made yearly budget and fund allocation, in consultation and proposal of the Principal/ Director, keeping balance between income and expenditure of the Institute so that, the Institute may not be financially sick and ultimately non viable.
- The Institute started its journey with four branches – CSE, IT, ECE and EIE. Subsequently three branches in B Tec like EE, ME and CE were added. Moreover one M Tech branch in Electronics & Communication Engineering was included in 2012.
- The Laboratories, Computer Centres, Workshops, Drawing Halls, Tutorial Halls, Seminar Hall were developed step by step.
- As BES is a non-profit NGO it re-invests all surplus money for the infrastructure development so that teaching learning process may be facilitated.

4.1.2 Detail the facilities available for

- a) **Curricular and co-curricular activities – classrooms, technology enabled learning spaces, seminar halls, tutorial spaces, laboratories, botanical garden, Animal house, specialized facilities and equipment for teaching, learning and research etc.**
- b) **Extra-curricular activities – sports, outdoor and indoor games, gymnasium, auditorium, NSS, NCC, cultural activities, Public speaking, communication skills development, yoga, health and hygiene etc.**

4.1.2a) Followings are the details of facilities available for **Curricular and co-curricular activities:**

Classrooms:

The class rooms are spacious more than 66 sqm in size and some class rooms are decorated with audio-visual equipments like LCD projectors.

Technology enabled learning spaces:

Some classrooms are technology enabled and the students as well as faculty members take help of OHP/LCD and Video Cassettes etc. The Language Laboratory, the Internet Laboratory and e journal access centre are fully technology enabled.

Seminar Halls:

The Seminar Hall is also well equipped with AC machines, audio visual equipments.

Tutorial spaces

The Institute has provided tutorial halls as per AICTE requirement.

Laboratories

Laboratories are spacious and well stocked as per syllabus requirement.

Botanical garden:

This Institute is surrounded by greenery like flower-garden, plants and trees.

Animal House:

This Institution doesn't have any animal house because it doesn't come under the purview of the course curricula of this Institution.

Specialized facilities and equipment for teaching:

Specialised equipments like OHP/LCD, Microphone etc, are used in classrooms for teaching learning process.

Specialized facilities and equipment for learning:

Specialised facilities and equipment for learning are headphones, projector screens, e resources, DVDs etc

Specialized facilities and equipment for research

This Institution has a Research Lab with specialised facilities and equipments for undergoing research works and projects for both the faculty members and students.

b) Followings are the details of the facilities available for extra-curricular activities:

Sports:

This Institute organises annual athletic sports every year in the month of February- March. Various sports events like 100/200/400/1500 mts run, various jumping events, throwing events, musical chair, go as you like etc are organised by the sports committee headed by the Principal of this Institution.

Outdoor games:

The Institute has a big playground suitable for holding cricket match, football match, volleyball match etc as outdoor games. This Institution supplies sports kits for football, volleyball, cricket, badminton etc for outdoor games and carom board, chess board, table tennis for indoor games.

Indoor games:

Carom board, Chess, Chinese Checker, Table Tennis are organised as indoor games.

Gymnasium:

The Institute has a gymnasium within the campus. Students avail the gym facility before or after class hours.

Auditorium:

The auditorium planning is under process. But this Institution has a fully furnished small auditorium that is serving the purpose for the time being.

NSS:

As per syllabi of the affiliating WBUT the students are involved in NSS programme under the guidance of Faculty Members and they work in the

nearby locality with programmes of health consciousness, danger of arsenic in water, snake bite and proper medication, eradicating illiteracy etc.

NCC:

There is no NSS unit in this Institution.

Cultural activities:

The Institute involves the students in programmes like Freshers' Welcome, Annual Fest, Independence Day Celebration, Republic Day Celebration, Teachers' Day Celebration in a grand manner. The students participate whole heartedly and perform cultural activities.

Public speaking:

To make students stage free and able to address the public some specific programmes are taken up on a regular basis. The students participate in extempore, debate, group discussion and topic discussion etc

Communication skills development:

Special efforts are given to develop communication skill of the students. In the Language Lab the students take help of Orell Software to develop their communication skill. Moreover, experts in communication skill development are invited to this Institute and the students attend their classes to enhance their communication skill. The students are compelled to speak in English in the Institute campus – both in classrooms and office.

Yoga:

Furthermore, the students are made aware about the importance of Yoga to maintain health and hygiene. Yoga Gurus are invited to teach the students the right process of yoga practice.

Health and hygiene:

To maintain health and hygiene of the students and staff of this Institution the Institution Campus is cleaned regularly. The toilets of the Institution and hostels are kept clean and hygienic. There are several water purifiers installed in the Institution and hostels to ensure purified drinking water. The hostel kitchen and Institute canteen maintain standard for supplying nutritious and hygienic food for the students and staff. Moreover, the physician of the Institution arranges health check up on a regular basis. Doctors from Murshidabad Medical College & Hospital arranged for Thallasamia test in the Institute campus.

4.1.3 How does the institution plan and ensure that the available infrastructure is in line with its academic growth and is optimally utilized? Give specific examples of the facilities developed/augmented and the amount spent during the last four years (Enclose the Master Plan of the Institution / campus and indicate the existing physical infrastructure and the future planned expansions if any).

The institution plans and ensures that the available infrastructure is in line with its academic growth and is optimally utilised, as follows:

In last four years one academic building of this Institute has developed and augmented facilities in respect of a new academic building of 4064.13 sqm and a new workshop consisting of 233 sqm to facilitate teaching-learning process of the students. Moreover departmental laboratories as per affiliating WBUT syllabi have been installed and commissioned. New books, journals both national and international, have been purchased. Library has been automated with Koha Software.

Expenditure for new building: Rs. 1,83,06,105.00

Expenditure for new workshop: Rs. 32,30,490.00

Expenditure for book purchase: Rs. 21,77,702.00

Expenditure for Koha Software: Rs. 1,00,000.00

Expenditure for Laboratory equipments purchase: Rs. 1,10,21,584.00

(The Master Plan of the Institution/ campus, indicating the existing physical infrastructure and the future planned expansions, is enclosed)

4.1.4 How does the institution ensure that the infrastructure facilities meet the requirements of students with physical disabilities?

As per norms of the Higher Education Department, Govt of West Bengal, the private Engineering Colleges may opt

or may not opt for students belonging to physically disabled Category. This Institute doesn't opt for admission of physically disabled Category Engineering students. But there is minimum provision for such students and this Institute shall take utmost care if any such students get themselves admitted here.

4.1.5 Give details on the residential facility and various provisions available within them:

- Hostel Facility – Accommodation available
- Recreational facilities, gymnasium, yoga center, etc.
- Computer facility including access to internet in hostel
- Facilities for medical emergencies
- Library facility in the hostels
- Internet and Wi-Fi facility
- Recreational facility-common room with audio-visual equipments
- Available residential facility for the staff and occupancy
- Constant supply of safe drinking water

Security

Followings are the details on the residential facility and various provisions available within them:

Hostel Facility – This is a fully residential Institute. It has three hostels for boys and one hostel for girls. All hostels are three seated with attached bath.

Recreational facilities:

In all hostels the students have spacious common rooms, indoor games like Carom board, chess, table tennis etc. The students can read newspapers, magazines etc.

Gymnasium, yoga centre, etc.

The Institute has a gymnasium and yoga centre which is open for all hostel boarders.

Computer facility including access to internet in hostel

All hostels are connected with Wi-Fi 16 Mbps. The hostellers may use the internet 24x7 hours with their PCs and Laptops.

Facilities for medical emergencies:

This Institution has a full time duly qualified Medical Officer to attend the ailing students in the hostels. If needed the students are referred to the Sub Divisional Hospital at Domkal nearby.

Library facility in the hostels:

The students enjoy book bank facility and online access to e books and e journals from the hostels.

Internet and Wi-Fi facility:

All the hostels are connected with 16 Mbps internet with Wi-Fi facility.

Recreational facility-common room with audio-visual equipments:

The students have recreational audio-video facility in the hostels. They enjoy TV programmes in the hostel beyond college hours and on holidays.

Available residential facility for the staff and occupancy:

The Superintendent, Warden and Cooking Staff may be accommodated in the hostel premises on their demand.

Constant supply of safe drinking water:

In hostels students are provided with purified drinking water. Water purifiers have been installed in the hostels for this purpose.

Security:

There are security guards in the hostels appointed by the Institute.

4.1.6 What are the provisions made available to students and staff in terms of health care on the campus and off the campus?

On the campus health care:

DIET has a full time Medical Officer for this Institute. When required the students may contact his office for health check up and medication. The physician arranges health check up from time to time.

Off the campus:

If the Institute physician feels it necessary he refers the patient to nearby Domkal Sub Divisional Hospital.

This Institute is a member of Students' Health Home. So, all students are eligible to have health support from that organization.

4.1.7 Give details of the Common Facilities available on the campus

–spaces for special units like IQAC, Grievance Redressal unit, Women's Cell, Counselling and Career Guidance, Placement Unit, Health Centre, Canteen, recreational spaces for staff and students, safe drinking water facility, auditorium, etc.

Following are the Common Facilities available on the campus or special units like,

IQAC:

This Institute has Created Internal Quality Assurance Cell (IQAC) and they prepare Annual Quality Assurance Report.(AQAR)

Grievance Redressal unit:

This Institute has a Grievance Redressal Cell and it functions throughout the year. Any student or stakeholder can approach the cell for lodging complaint on the basis of his/her grievance.

Women's Cell:

The girl students as well as lady staff, if they think it necessary, can lodge complaint in women's cell for redressal/justice.

Counselling and Career Guidance:

Counselling of students and career guidance has been undertaken on regular basis. In the beginning of new session the students are counselled by the social workers, psychiatrists and law officers

Placement Unit:

This Institute has placement unit at both college end and in Kolkata. These units actively do the utmost for training of the students as well as placement.

Health Centre:

There is a sick room in this Institution where the appointed full time physician attends the ailing students.

Canteen:

This Institute has a spacious canteen where the students as well as the employees can have lunch/Tiffin at fare price.

Recreational spaces for staff and students:

The students have common rooms for boys and girls separately. They may relax with indoor games as well as surfing net in their laptops. There are newspapers and magazines in the common rooms also.

Safe drinking water facility:

In the Institution and canteen there is ample supply of safe and purified drinking water.

Auditorium:

The auditorium planning is under process. But this Institution has a fully furnished small auditorium that is serving the purpose for the time being.

4.2 Library as a Learning Resource

- 4.2.1 **Does the library have an Advisory Committee? Specify the composition of such a committee. What significant initiatives have been implemented by the committee to render the library, student/user friendly?**

Library Advisory Committee:

Yes, the library has an Advisory Committee.

The composition of Library Advisory Committee:

The Advisory Committee consists of a) The Principal, b) Vice Principal, c) Vice Chairman, BES, d) Executive Secy, BES, e) The Librarian, Assistant Prof, IT f) Assistant Prof & HOD, English

Significant initiatives implemented by the committee to render the library, student/user friendly?

- 4.2.1 This Committee adopts rules for running the Library smoothly and effectively so that the purpose of the library becomes fruitful. Initially the library was run manually. All entries of books record, lending records etc would be done on papers. This Advisory Committee suggested implementation of Library Software. Now all books have been recorded in computer database and book searching, lending etc are done through software programming. The library working hours have been extended. Formerly library working hours was 10.00 am to 5.00 pm with Institute working hours. But now Library hours starts at 7.00 am and continues up to 7.00 pm. Thus students can avail library facility more than before.

4.2.2 Provide details of the following:

- * Total area of the library (in Sq. Mts.)**
- * Total seating**

capacity

***Working hours (on working days, on holidays, before examination days, during examination days, during vacation)**

Followings are the details of library:

Total area of the library: 622 sqm.

Total seating capacity: 150 students

Working Hours:

On working days : 7.00 am to 7.00 pm

On holidays: Closed

Before examination days: 7.00 am to 7.00 pm

During examination days: 7.00 am to 7.00 pm

During vacation: 7.00 am to 7.00 pm

* Layout of the library (individual reading carrels, lounge area for browsing and relaxed reading, IT zone for accessing e-resources)

4.2.2 Total area of the library : 622 sqm. Total seating capacity 150.

Working Hours:

On working days : 7.00 am to 7.00 pm

On holidays: Closed

Before examination days: 7.00 am to 7.00 pm

During examination days: 7.00 am to 7.00 pm

During vacation: 7.00 am to 7.00 pm

(Lay out is enclosed as per specifications)

4.2.3 How does the library ensure purchase and use of current titles, print and e-journals and other reading materials? Specify the amount spent on procuring new books, journals and e-resources during the last four years.

4.2.3 The library ensures purchase and use of current titles, print and e-journals and other reading materials

as this Library is run under the guidance and advice of Library Advisory Sub Committee. Before the commencement of each semester the Advisory Committee holds a meeting with all HODs and Library Staff. The requirement of the syllabus of the University is taken into account. Thus the list of titles, e-journals and other reading materials is prepared. The list is passed by the Purchase Committee and final order is placed. In this process efficiency in purchase for the library is ensured.

The following chart will show the amount spent on procuring new books, journals and e-resources during the last four years:

Library holdings	Year 2010-11		Year 2011-12		Year 2012-13		Year 2013-14	
	Number	Total Cost	Number	Total Cost	Number	Total Cost	Number	Total Cost
Text books	2771	1246409	791	274941	788	206439	914	327307
Reference Books	48	273623	45	19201	32	10894	72	26706
Journals/ Periodicals			National 47 International 26	214300	National 47 International 26	214300	N 31 Int 21	123550
e-resources	DELNET	11500	Springer ASTM ELSEVIER J Gate	145600 57,090 347750 66,180	DELNET	16500	DELNET	11500
Any other (specify)								

4.2.4 Provide details on the ICT and other tools deployed to provide maximum access to the library collection?

- * OPAC
- * Electronic Resource Management package for e-journals

***Federated searching tools to search articles in multiple databases**

- * **Library Website**
- * **In-house/remote access to e-publications**
- * **Library automation**
- * **Total number of computers for public access**
- * **Total numbers of printers for public access**
- * **Internet band width/ speed 2mbps 10 mbps (GB)**
- * **Institutional Repository**
- * **Content management system for e-learning**
- * **Participation in Resource sharing networks/consortia (like Infilibet)**

Followings are the details on the ICT and other tools deployed to provide maximum access to the library collection:

- * OPAC - Yes, students can access the library catalogue online.
- * Electronic Resource Management package for e-journals – Yes, e journal can be accesses through Electronic Resource Management.

***Federated searching tools to search articles in multiple databases**

- * Institute has subscribed J Gate e journal
- * Library Website
www.dietlib.org
- * In-house/remote access to e-publications
Yes, e journals can be accessed in house and remote.
- * Library automation
Library has been automated by Koha Software.
- * Total number of computers for public access
Ten computers are there for public access.
- * Total numbers of printers for public access
One printer and one High Speed Xerox cum printer
- * Internet band width 16 Mbps

*** Institutional Repository:**

Institution has repository software to store study materials and other academic information.

*** Content management system for e-learning:**

Yes, content management is done for e-learning. NPTEL and MIT Open Source may be accessed running VIDEO and the faculty and students may download the content. The materials that are uploaded in our website may also be accessed by the faculty and students who may study, save and take the materials in their storage devices.

*** Participation in Resource sharing networks/consortia (like**

Inflibnet)

On the way of Development .

4.2.5 Provide details on the following items:

- * Average number of walk-ins**
- * Average number of books issued/returned**
- * Ratio of library books to students enrolled**
- * Average number of books added during last three years**
- * Average number of login to opac (OPAC)**
- * Average number of login to e-resources**
- * Average number of e-resources downloaded/printed**
- * Number of information literacy trainings organized**
- * Details of “weeding out” of books and other materials**

The details on the number of walk-ins etc are, as follows:

4.2.5

- * Average number of walk-ins -150**
- * Average number of books issued/returned - 110/70**

- * Ratio of library books to students enrolled- 24
- * Average number of books added during last three years- 831
- * Average number of login to OPAC – 3-4 students
- * Average number of login to e-resources- 5-6 students
- * Average number of e-resources downloaded/printed 2-3 students
- * Number of information literacy trainings organized- Three

4.2.6 Give details of the specialised services provided by the library

- * Manuscripts
- * Reference
- * Reprography
- * ILL (Inter Library Loan Service)
- * Information deployment and notification
(Information
Deployment
and
Notification)
- * Download
- * Printing
- * Reading list/ Bibliography compilation
- * In-house/remote access to e-resources
- * User Orientation and awareness
- * Assistance in searching Databases
- * INFLIBNET/IUC facilities

Followings are the details of the specialised services provided by the library:

- * Manuscripts
There is no manuscript in the library.
- * Reference
There are 197 copies of reference books in the library

- * Reprography
One Xerox Machine of high speed with multi facility.
- * ILL (Inter Library Loan Service)
ILL facility is operative among the departmental libraries and the Dumkal Polytechnic Library.

Notification)

- * Information deployment and notification
(Information
Deployment and
Information deployment and notification is done with due importance on all occasions.

- * Download
Download facility is available
- * Printing
Facility for printing of downloaded matter is available
- * Reading list/ Bibliography compilation
Yes, reading list and bibliography compilation available
- * In-house/remote access to e-resources
E-resources may be availed both in house and remote.

* **User Orientation and awareness**

Students are made aware through orientation programme

- * Assistance in searching Databases
Library staff always assists the students in searching Database.

* **INFLIBNET/IUC facilities**

An INFLIBNET Centre is on the process of development in the Central Library. It will play a vital role in the collection development and dissemination of scientific and technical information to meet the present and future needs of

the Centre.

4.2.7 Enumerate on the support provided by the Library staff to the students and teachers of the college.

4.2.7 The support provided by the Library staff to the students and teachers of the college is unique.

The Librarian and the library staff are experienced and well trained. They take every care to know the exact requirement of the student as well as the Faculty Members. They suggest the titles and authors including name of the publishers so that the individual student and faculty member may fix his/her choice correctly. The Librarian and the staff members take quick action on each demand and ensure delivery of the books at the earliest.

4.2.8 What are the special facilities offered by the library to the visually/physically challenged persons? Give details.

4.2.8 The visually challenged students may borrow CD Cassettes from the library so that they may play the same and hear the topics needed by them. No Braille system books are available in the library. Physically challenged students may have help from library support staff for definite help.

4.2.9 Does the library get the feedback from its users? If yes, how is it analyzed and used for improving the library services. (What strategies are deployed by the Library to collect feedback from users? How is the feedback analysed and used for further improvement of the library services?)

The strategies deployed for collecting feedback from the library users:

The library gets feedback from the students as well as the faculty members once in a year. Feedback Forms are kept in a public place in the library so that these may be easily available to the students and faculty members. They fill in

the columns and submit those in a box kept for that purpose. Privacy regarding the opinion is strictly maintained.

Analysis of the feedback and its use for improving the library services:

The Library Advisory Committee analyse the feedback of the students and faculty members and other stakeholders for taking proper action to improve service of the library.

4.3.1 IT Infrastructure

4.3.1. Give details on the computing facility available (hardware and software) at the institution.

- **Number of computers with Configuration (provide actual number with exact configuration of each available system)**
- **Computer-student ratio**
- **Stand alone facility**
- **LAN facility**
- **Wifi facility**
- **Licensed software**
- **Number of nodes/ computers with Internet facility**
- **Any other**

Followings are the details on the computing facility available (hardware and software) at the institution:

- Number of computers with Configuration (actual number with exact configuration of each available system)

Configuration and nos of computers :

- a) Pentium ® D CPU 2.66 GHz, 1 GB RAM, 80 GB Hard Disk 90
- b) CORE 2 DUO 2.93 GHz, 2 GB RAM 500 GB Hard Disk 100
- c) CORE 2 DUO 2.93 GHz , 2 GB RAM 250 GB Hard Disk 100

- d) CORE 2 DUO 2.93 GHz, 2 GB RAM, 160 GB Hard Disk 100
- e) Pentium® CPU 2.66 GHz, 1 GB RAM, 80 GB Hard Disk

- Computer-student ratio

Computer-student ration is 1:4

- Stand alone facility

Yes, stand alone facility is there in all department offices, staff room and office.

- LAN facility

All PC laboratories have LAN facility.

- Wi-Fi facility

The Institute and Hostels are Wi-Fi enabled.

- Licensed software

The followings are the Licensed software used by this Institute:

List of Application Software:

1. Microsoft Office 2003, 2007, 2010
2. Microsoft Visual Studio 2003, 2005, 2008, 2010
3. Microsoft SQL Server 2003, 2005, 2008
4. Matlab 14
5. Symantec Endpoint Protection
6. Macromedia Protection
7. Macromedia Flash
8. Macromedia Dreamweaver
9. Macromedia Director mx 2004
10. Adobe Photoshop
11. Pspice
12. Auto Cad
13. Oracle

List of System Software:

- 1) Windows XP SP 2
- 2) Windows XP SP 3
- 3) Windows 2000
- 4) Windows Vista

- 5) Windows 7
- 6) Windows Server 2000, 2003, 2008
- 7) Linux
- 8) AIX Server

- **Number of nodes/ computers with Internet facility**

All PCs in PC Labs are connected with internet. Moreover, the departmental PCs and Office PCs are also connected with internet.

4.3.2 Detail on the computer and internet facility made available to the faculty and students on the campus and off-campus?

Followings are the details on the computer and internet facility made available to the faculty and students:

On the campus the students, faculty members and staff can access internet on computer in the Internet Lab, on their personal Laptop, Mobile etc.

Moreover, The faculty members have such internet facility in their respective departmental computers and in their Laptops.

Off-campus access of internet is possible when the students are in their hostels. All hostels have Wi-Fi connectivity.

4.4 Maintenance of Campus Facilities

4.4.1 How does the institution ensure optimal allocation and utilization of the available financial resources for maintenance and upkeep of the following facilities (substantiate your statements by providing details of budget allocated during last

Four years)

a.	Building
b.	Furniture
c.	Equipment
d.	Computers
e.	Vehicles
f.	Any other

The details of budget allocated during last four years are provided to substantiate that, the institution ensure optimal allocation and utilisation of the available financial resources for maintenance and upkeep of the following facilities:

Sl No	Financial Year	Item	Budget Allocation	Utilization
a	2010-2011	Building	80000.00	85,300
b		Furniture	25000.00	22,400
c		Equipment	20000.00	15,200
d		Computers	35000.00	32150
e		Vehicles	Nil	Nil
f		Any other & D G Set	10000.00	4,408
Total			170000.00	1594580.00

Sl No	Financial Year	Item	Budget Allocation	Utilization
a	2011-2012	Building	150000.00	1,50,300
b		Furniture	40000.00	40,500
c		Equipment	20000.00	18,200
d		Computers	80000.00	84,400
e		Vehicles	Nil	Nil
f		Any other & D G Set	10000.00	7921
Total			300000.00	301321.00

Sl No	Financial Year	Item	Budget Allocation	Utilization
a	2012-2013	Building	200000.00	2,05,500
b		Furniture	100000.00	95,200
c		Equipment	20000.00	18,400
d		Computers	80000.00	80,300
e		Vehicles	Nil	Nil

f		Any other & D G Set	10000.00	9762
Total			410000.00	409162.00

Sl No	Financial Year	Item	Budget Allocation	Utilization
a	2013-2014	Building	300000.00	3,20,994
b		Furniture	40000.00	39,947
c		Equipment	10000.00	9,795
d		Computers	200000.00	2,05,200
e		Vehicles	Nil	Nil
f		Any other & D G Set	200000.00	1,89,737
Total			750000.00	765673.00

4.4.2 What are the institutional mechanisms for maintenance and upkeep of the infrastructure, facilities and equipment of the college?

Following are the institutional mechanisms for maintenance and upkeep of the infrastructure, facilities and equipment of the college:

Infrastructure:

The Institute buildings, labs, workshops, common rooms and canteen etc are maintained regularly so that the doors and windows are kept intact.

Facilities:

To maintain facilities and augment the same this Institute deploys staff who undertakes necessary action as and when required.

Equipment:

All laboratory equipments are maintained with care. Electronics and electrical equipments are calibrated on regular basis. This Institute has a computer repair section where hardware engineers/ assistants are working.

4.4.3 How and with what frequency does the institute take up calibration and other precision measures for the equipment/instruments?

This Institute take up calibration on the basis of lab report by the concerned HOD of the department usually once in a semester. But in case of emergency this process of calibration and other precision is taken up anytime to provide lab facility to the students.

4.4.4 What are the major steps taken for location, upkeep and maintenance of sensitive equipment (voltage fluctuations, constant supply of water etc.)?

Voltage fluctuation:

To combat voltage fluctuation voltage stabilisers like UPS, CVT, Online UPS have been installed to upkeep and maintain the sensitive equipments against voltage fluctuation and subsequent damage.

Constant supply of water:

This institute has ensured constant supply of purified water for the students and staff. During summers the students and staff may have supply of cool water from water cooler.

CRITERION V: STUDENT SUPPORT AND PROGRESSION

5.1 Student Mentoring and Support

5.1.1 Does the institution publish its updated prospectus/handbook annually? If 'yes', what is the information provided to students through these documents and how does the institution ensure its commitment and accountability?

Publication of prospectus

Yes.

The Institute publishes updated prospectus annually.

The Institute also displays the relevant information in its website (www.besdiet.org).

The information provided to students through these

The information provided to the students through the prospectus and the website includes:

- (1) Vision and Mission of the Institute,
- (2) Mandatory Disclosure,
- (3) Message from the Desk of The Chairman,
- (4) Message from the Desk of The Principal,
- (5) The Founder,
- (6) The Basantapur Education Society,
- (7) Location of the Institute,
- (8) The Principal,
- (9) Distinguished Professors,
- (10) Other Faculty,
- (11) Central Library,
- (12) Laboratory Facility,
- (13) Training and Placement Cell,
- (14) Placement Activities,
- (15) Accommodation (Hostel Facilities),
- (16) Performance of the Students,
- (17) Dress Code,
- (18) Anti-Ragging Cell,
- (19) Approach roads to the Institute,
- (20) Course Fees and Hostel Charges,
- (21) Free studentship and scholarship,
- (22) Students' Activities & Achievements.

Ensuring of commitment & accountability of the Institute:

The Institute commits itself to the data published in the prospectus and website. The Institute ensures that all the data provided in the prospectus are genuine and publishes only the facts. Any one may draw the attention of the

authority of the Institute, if there is any discrepancy between the actual existence of facilities and what have been published. So the Institute provides what have been published. In this way the Institute ensures its commitment and accountability to the information.

The Institute ensures that all information given in the prospectus and the website are true and definite.

5.1.2 Specify the type, number and amount of institutional scholarships / freeships given to the students during the last four years and whether the financial aid was available and disbursed on time?

Type, number and amount of institutional scholarships/ freeships given to the students during the last four years

Sl No	Scholarship	Scholarship Provider	2013-2014	2012-2013	2011-2012	2010-2011
1	Partial Free	BES	11	23	16	23
2	Full Free	BES	1	3	3	9

Following are the financial aid and time of disbursement

Sl No	Scholarship	2013-2014	2012-2013	2011-2012	2010-2011
1	SC/ST/OBC from Govt of WB	82,500.00	4,29,000.00	1,65,000.00	1,15,500.00
2	Minority MCM from Govt of India	43,08,000.00	43,16,500.00	27,63,000.00	23,55,000.00
3	MCM from Bihar/ Jharkhand Govt	40,000.00	80,000.00	40,000.00	0
4	Partial Free from BES	3,32,750.00	6,53,600.00	6,16,200.00	5,59,750.00
5	Full Free from BES	27,900.00	1,37,000.00	15,400.00	3,50,500.00

5.1.3 What percentage of students receives financial assistance from state government, central government and other national agencies?

Followings are the percentage of students, who receive financial assistance from state government, central government and other national agencies:

Sl No	Scholarship	Scholarship Provider	2013-2014	2012-2013	2011-2012	2010-2011
1	SC/ST/OBC	Govt. of WB	5	26	10	7
2	Minority MCM	Govt of India/Govt of WB	188	158	103	88
3	MCM	Bihar/Jharkhand Govt	2	4	2	0
Percentage			40.04	31.81	15.31	11.12

5.1.4 What are the specific support services/facilities available for

- ✓ Students from SC/ST/OBC and economically weaker sections
- ✓ Students from physical disabilities
- ✓ Overseas students
- ✓ Students in various competitive/ National and International
- ✓ Medical assistance to students: health care, health insurance
- ✓ Organising coaching classes for competitive exams
- ✓ Skill development (spoken English, computer literacy, etc
- ✓ Support for slow learners
- ✓ Exposures of students to other institution of higher learning/ corporate/ business house etc
- ✓ Publication of student magazine

Followings are the support services/ facilities available for students:

Students from SC/ST/OBC and economically weaker sections

Institute grants full/half/partial free-studentship facilities for meritorious and economically weaker students. At the time of admission the institute identifies SC/ST/OBC students and helps them by informing regularly regarding the scholarship schemes of Central Govt, State Govt and other bodies.

Students from physical disabilities

The institute supports physically disabled students by all means wherever and whenever necessary. The Institute tries to arrange the classes on the ground floor; moreover our central library is located on the ground floor. Presently, we don't have any physically challenged student.

Overseas students

There are no students from overseas. We do not have any Foreign or NRI quota students.

Students in various competitive/ National and International

Our students participate in numbers of National level competitions and University level competitions. We have won the University Athletic Championship in the year 2002. Books & magazines competition are available in the library for the preparation of various competitions. Career coaching classes are taken by the faculty members and by external training agencies.

Medical assistance to students: health care, health insurance

The Institute's Health Unit caters to the health problems of the students & provides them with medical aid. We have a fulltime Medical Officer appointed by the society (BES) and if any emergency occurs, we transfer the patient to our Sub-Divisional Hospital which is just 3KM from our campus. There is a Medical College in our district which is just 35 KM away from the Institute where all the facilities are available.

Organising coaching classes for competitive exams

The Institute arranges coaching classes for competitive exams. The students of every department are motivated and guided by faculty members in appearing for exams like GATE, IBPS etc. Question bank and study material for GATE, GRE, CAT and TOEFL are made available in the library.

Skill development (spoken English, computer literacy, etc

Communication skill classes are conducted by the faculty members of respective department and Humanities department. We have a well-equipped Language laboratory with latest software to provide the best quality of skill development.

We have some external agencies for grooming of students which are given below:

Year	Department	Name of Agencies	Students participated
2013-14	CSE, ECE, ME, EE, CE, AEIE, IT	Ardent, Perpleleap	All students of 2 nd /3 rd /4 th Year
2012-13	CSE, ECE, ME, EE, CE, AEIE, IT	Ardent, Perpleleap	All students of 2 nd /3 rd /4 th Year
2011-12	CSE, ECE, EE AEIE, IT	Ardent, Perpleleap	All students of 2 nd /3 rd /4 th Year

2010-11	CSE, ECE, EE, AEIE, IT	Ardent, Perpleleap	All students of 2 nd /3 rd / 4 th Year
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Support for slow learners

For slow learners Remedial classes & Tutorials are organized. Regular motivation and counselling from the faculty and proctors also help them to overcome their barriers. Revision of topics and practical classes by our faculty members are done regularly. Personal, academic and social counselling is being carried out by our faculty members.

Exposures of students to other institution of higher learning/ corporate/ business house etc

The students are exposed to other institution or industries through industrial visit, internship training and project work. Students are motivated to participate in Seminars and we regularly invite the experts on various subjects of other institution of higher learning as for example from IIT, Jadavpur University, Calcutta University, Burdwan University, ISI-Kolkata, ANNA University, Bharathidasan University etc.

Publication of student magazine

The Institute annually publishes a wall magazine entitled “UTTARAN”. It is an ideal platform for students and staff to realize their creative potential and hone their writing skills. It is maintained by various departmental heads and an editorial body.

5.1.5 Describe the efforts made by the institution to facilitate entrepreneurial skills, among the students and the impact of the efforts.

Following are the efforts made by the institution to facilitate entrepreneurial skills, among the students:

The Institution has given efforts to facilitate entrepreneurial skills by motivating the students to be involved in small projects by developing small electronic kits, electrical kits, manufacturing various wooden products and mechanical products like small machine components, nuts bolts etc, also application software, designing of webpage etc so that these designs can be used by small scale industries for manufacturing/developing products. BES organised Education Fair in every year and few related products marketed by the students of the institution at respective departmental stall. The institution has strong training and placement cell to motivate the students to enhance entrepreneurial skills and help to get ready for industry.

Impacts of the efforts are:

- (1) It created entrepreneurship quality among students.
- (2) Some of them have established their own enterprises.
- (3) The students learn how to use the technical skill in practical field.

5.1.6 Enumerate the policies and strategies of the institution which promote participation of students in extracurricular and co-curricular activities such as sports, games, Quiz competitions, debate and discussions, cultural activities etc.

Following are the policies and strategies of the institution to promote participation of students in extracurricular and co-curricular activities such as sports, games, Quiz competitions, debate and discussions, cultural activities etc:

Games & sports:

For promotion of participation of students in games and sports, the Institute:

- (1) provides Track Suit, jersey, cricket kits, football, volleyball, table tennis, badminton etc to students for participating in tournaments organised by college or by University;
- (2) provides Sports kit with uniform & Sports Material for sports like Cricket, Table Tennis, Carom Board, football etc;
- (3) organises participation in inter collegiate tournaments conducted in Cricket, Football, Volley ball etc;
- (4) organises annual sports every year where several events are conducted as Cricket, athletics, badminton, Volley Ball etc;
- (5) provides Gymnasium facility for students; and
- (6) provides grants for annual expenditure on consumable sports materials.

Quiz competitions

For promotion of participation of students in quiz, the Institute:

- (1) facilitates regular practice session by few faculty members;
- (2) provides extra books which are related with quiz competition to students, interested in quiz.
- (3) conducts intra-departmental quiz competition every year and awards at the time of cultural program like social, re-union.

Debate and discussions

For promotion of participation of students in Debate and Discussions, the Institute:

- (1) organises Debates and discussion regularly;
- (2) organises Group Discussion by TPO Cell for 4th year students;
- (4) conducts intra-departmental debate and discussions every year and awards at the time of cultural program like social, re-union.

Cultural activities

For promotion of participation of students in Cultural Activities, the Institute:

- (1) forms a student cultural committee to promote cultural events;
- (2) provides musical instruments;
- (3) facilitates practicing dancing, singing and play;
- (4) provides fund for hire instruments and costume for cultural events.

Education Fair

The Institute also organises an Education Fair every year.

5.1.6 Enumerating on the support and guidance provided to the students in preparing for the competitive exams, give details on the number of students appeared and qualified in various competitive exams such as UGC-CSIR- NET, UGC-NET, SLET, ATE / CAT / GRE / TOEFL / GMAT / Central /State services, Defence, Civil Services, etc.

Following are the support and guidance provided to the students in preparing for the competitive exams:

- (1) The departments provide guidance and coaching classes to students for appearing competitive examinations like GATE/CAT.
- (2) Our Language lab has latest interactive software which enables the students to prepare for GRE and TOEFL examinations.
- (3) Our library is equipped with sufficient number of books on career Guidance and Competitive Examinations.
- (4) External agencies like Ardent, Perpleleap take regular coaching classes for grooming of students.

The details of the number of students appeared and qualified in various competitive exams such as UGC-CSIR- NET, UGC-NET, SLET, ATE / CAT / GRE / TOEFL / GMAT / Central /State services, Defence, Civil Services, etc:

Number of Students qualified in GATE

Batch	CE	ME	CSE	IT	EE	AEIE	ECE	Total
2010-2014	NA	NA	1	0	1	2	1	5
2009-2013	NA	NA	1	1	7	3	1	14
2008-2012	NA	NA	0	1	1	6	3	11
2007-2011	NA	NA	0	0	2	0	3	5

Number of Students qualified in CAT/MAT

Batch	CE	ME	CSE	IT	EE	AEIE	ECE	Total
2010-2014	NA	NA	0	0	0	0	0	0

2009-2013	NA	NA	0	0	0	0	0	0
2008-2012	NA	NA	1	0	0	2	0	3
2007-2011	NA	NA	0	1	0	0	0	1

5.1.8 What type of counselling services are made available to the students (academic, personal, career, psycho-social etc?)

Followings are the counselling services made available to the students:

Academic Counselling:

- (1) Dean of the Students Affairs regularly visits the class rooms to monitor the attendance of the students. In class he interacts with the students and tries to know if there are any difficulties in teaching - learning process. The Dean also looks after the final year project work, related seminars, poster and model presentation.
- (2) The Academic Cell conducts periodic meetings in order to improve the teaching – learning process.
- (3) The Academic Sub-Committee looks after the departmental issues.
- (4) Faculty members give extra time outside the class room to solve the difficulties and doubts of students.

Personal Counselling:

From the very first year every student is under a mentor system. A member from the faculty is allotted with nearly 20 students and he/she looks after their vivid problems separately.

Career Counselling:

Our TPO cell is very much active in this aspect. They guide the students on a regular basis and inform them about the various competitive exams, campus drives well as off-campus drives. Every department has a schedule in their academic session for the final year students for developing soft-skills. The schedule also includes group discussion, extempore, practising aptitude (technical and non-technical), interview questionnaire, body language, etc.

Psycho-social

The stress and strain factors of the society shroud the students' mentality and often there is a chance for them to be misguided. Either they fall prey to drug addiction or they are frustrated in case of personal relation problem. This Institute gives full support to such affected students with utmost care.

Two examples may be cited here:

(1) A student became a victim of psychological problem of perverted expression of sexual desire. His parent was called at once and guided to consult a psychiatrist and granted him leave as required. He underwent treatment and came round rapidly.

(2) A girl student developed some mental problem. She would cut her hand by blade and injured herself several times even before she was admitted to this Institute. When this matter came to the knowledge of the Institute, mentor and medical officer counselled her and collected all the relevant information about her. The college authority handled her case with care and showed filial affection to win her confidence. She was convinced and gradually she came round. Moreover she was sent to a psychiatrist for proper medication.

5.1.9 Does the institution have a structured mechanism for career guidance and placement of its students? If “yes”, detail on the services provided to help students identify job opportunities and prepare themselves for interview and the percentage of students selected during campus interviews by different employers (list the employers and the programmes).

Structured mechanism for career guidance and placement of its students:

Yes.

The Institute has a structured mechanism for career guidance and placements of its students. The Institution has a Full-fledged Training & Placement Cell comprising of three T&P Officers and Departmental Coordinators. It monitors and organizes continuously the training and placement activities. The cell regularly contacts all relevant industries / companies and conducts placement drives.

The details of the services provided to help students identify job opportunities and prepare themselves for interview

The Institution conducts special training classes by experts from training companies on English Language and Communication Skills to improve the communication skills of students. It also helps the students to improve their technical presentation and interview performance skills.

Regular training on aptitude and soft skills is provided to the students of second year onwards classes both by the external and internal resource persons. Apart from these, for 3rd year and 4th year students, following services are provided regularly-

- (1) Group Discussions,
- (2) Aptitude and Technical Coaching classes,

- (3) Special coaching on reasoning test,
- (4) Personality development,
- (5) Coaching classes for aptitude development by external agencies like Ardent, Perpleleap.

The percentage of students selected during campus interviews by different employers

Year	Type of Recruitment	Name of the Companies	No. of Students Placed	Percentage
2014	On campus	TCS, Soft Think Pvt. Ltd., Karmick Soft, Baidpower Pvt. Ltd., Skylark Technology Pvt. Ltd., Trimula Seven Hills.	38	65.5
	Pull / off campus	IBM, L & T Infotech, Inolyst Consulting Pvt. Ltd., Videocon, OGMA – IT Conception Pvt. Ltd. Chikpea India Pvt. Ltd.	3	5.17
2013	On campus	TCS, Soft Think Pvt. Ltd., Cheers Interactive, Syber Swift Pvt. Ltd., DESCON. Eagles software, DS Infotech.	86	52.76
	Pull / off campus	CTS, L & T Infotech, Ajanta Footwear, ES Telecom.	15	9.20
2012	On campus	Taragana, Kreeti Technology, Merce Technology, NLeague Software Solution, Chikpea, Esolz Techonology, World Phone, Assurance Info management Pvt. Ltd., Finch Lab, DESCON.	146	49.49
	Pull / off campus	WIPRO Technology, Reliance Communication, Hexaware, Nektone Software, Poornam Info Vision, Syntel.	4	1.35
2011	On campus	Indian Army, Entracho Power System Pvt. Ltd., Earth Technology, Netel Technology, Alumnus Software, Brainwave, Shyam Group, Merce Technology, Kreeti Technology	137	42.94

	Pull / off campus	CSS Corp, En Vision, TATA Steel Processing and Distribution Ltd., KPIT Cummings, Verizon Data Service India Pvt. Ltd. Syntel.	3	0.94
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5.1.10 Does the institution have a student Grievance Redressal cell? If yes, list (if any) the grievances reported and redressed during the last four years.

Student Grievance Redressal cell:

Yes,

The institution has a Grievance Redressal Cell to look and resolve the grievances faced by the students. It has been established to find the solutions for the problem faced by the students during their course of study.

Grievances reported and redressed during the last four years:

No grievances reported till date.

5.1.11 What are the institutional provisions for resolving issues pertaining to sexual harassment?

Followings are the institutional provisions for resolving issues pertaining to sexual harassment:

The Institution has a protection cell against sexual harassment which was constituted according to the guidelines framed by the Govt comprising the following members

- (1) One senior lady faculty as convener
- (2) One faculty as member from each department.
- (3) One lady office staff.

The basic functions of the cell are:

The cell creates awareness through posters, notices and interactive sessions among the students and faculty on this issue. If a complaint is received by the cell, it will conduct an enquiry to identify the gravity of the offence. Based on the firsthand information and prime-facie evidence, if found, the committee has to submit its report to the Principal for further action.

Till date no such cases have been reported to the cell.

5.1.12 Is there an anti-ragging committee? How many instances (if any) have been reported during the last four years and what action has been taken on these?

Yes.

The Institution has an anti-ragging committee.
Till now no such cases have been reported in our institute.

5.1.13 Enumerate the welfare schemes made available to students by the institution.

Followings are the welfare schemes made available to the students:

- (1) Institute provides free-studentship (partial and full) for the meritorious and needy students.
- (2) The Institute helps the students to get scholarship and bank loan.
- (3) The Institute provides Book Bank facility to students.
- (4) The Institute is in collaboration with Bank of Baroda, Basantapur Branch so that the students may open a Zero Balance Account.
- (5) The Institute provides canteen facility which provides snacks and food at reasonable rates to the students.
- (6) The institute has appointed a Medical officer to take health care of the students.
- (7) The Institute makes arrangement for Railway concessions to the students.
- (8) The Institute counsels and helps the students at the time of any difficulty.

5.1.14 Does the institution have a registered Alumni Association? If 'yes', what are its activities and major contributions for institutional, academic and infrastructure development?

The Institution has an alumni association, which is formed in April 2008 but it is yet to be registered.

Activities of the Alumni Association:

Its motive is to bring together all the Alumni to share their experiences and to extend their helping hand and provide guidance to the budding engineers of the institute. All the passed out students of the institute become members of the Alumni Association. At present it has strength of nearly 1500. It is providing a forum for interaction among the Alumni and also develops a rapport with present students. Its main objective is to enable the Alumni to take active part in the activities and development of the Institution. The Institution has page in social networking sites like Facebook.

Major contributions for institutional, academic and infrastructure development:

Following are the major contribution of Alumni Association for institutional, academic and infrastructure development:

- (1) Alumni helps our students a lot to get better placement in various companies.
- (2) Alumni helps student by motivating and guiding for further study.
- (3) Alumni help by contributing books, small amount of money for academic and infrastructure development.

5.2 Student Progression

5.2.1 Providing the percentage of students progressing to higher education or employment (for the last four batches) highlights the trends observed.

Student Progression	2014	2013	2012	2011
UG to PG				
PG to M Phil				
PG to Ph D				
Employed Campus Selection				
Other than Campus Selection				

Followings are the percentage of students progressing to higher education or employment (for the last four batches):

Student Progression	2014	2013	2012	2011
UG to PG	17.24	5.52	5.57	3.13
PG to M Phil	0	0	NA	NA
PG to Ph D	0	25	NA	NA
Employed Campus Selection	65.5	52.76	49.49	42.94
Other than Campus Selection	5.17	9.20	1.35	0.94

Note: percentage has been calculated on the number students passed.

The trends observed are, as follows:

Most of the students are getting placement and going into various companies and also significantly few are going for higher education.

5.2.2 Provide details of the programme wise pass percentage and completion rate for the last four years (cohort wise/batch wise as stipulated by the university)? Furnish programme-wise details in comparison with that of the previous performance of the same institution and that of the Colleges of the affiliating university within the city/district.

The details of the programme wise pass percentage and completion rate for the last four years (cohort wise/batch wise as stipulated by the university):

Batch	B Tech													
	CE		ME		CSE		IT		ECE		AEIE		EE	
	pass %	Completion %	pass %	Completion %	pass %	completion %	pass %	completion %	pass %	completion %	pass %	completion %	pass %	completion %
2010-2014	NA	NA	NA	NA	91.6	75	100	100	100	92.3	100	72.7	100	100
2009-2013	NA	NA	NA	NA	100	95	100	91	100	100	100	100	100	98.3
2008-2012	NA	NA	NA	NA	100	95	100	84.7	100	100	100	100	100	86.9
2007-2011	NA	NA	NA	NA	100	95	100	98.4	100	95	100	100	100	100

Academic year	M Tech (ECE)	
	pass %	Completion %
2012-2014	100	100
2011-2013	100	100
2010-2012	NA	NA
2009-2011	NA	NA

Programme-wise details in comparison with that of the Colleges of the affiliating university within the district:

Following are the details within district Murshidabad.

(1) Details of Murshidabad College of Engineering and Technology(MCET), Berhampore, Murshidabad

Batch	B Tech											
	CSE		IT		ECE		EE		AEIE		CE	
	pass %	Completion %	pass %	Completion %	pass %	completion %	pass %	completion %	pass %	completion %	pass %	completion %
2010-2014	97.5	97.5	100	100	100	100	100	100	83.3	83.3	NA	NA
2009-2013	100	100	100	100	100	100	100	100	NA	NA	NA	NA
2008-2012	100	100	100	100	100	100	100	100	NA	NA	NA	NA
2007-2011	100	100	100	100	100	100	NA	NA	NA	NA	NA	NA

(2) Details of Government College of Engineering &Textile Technology (GCETT), Berhampore, Murshidabad

Batch	B Tech							
	TT		CSE		EE		ME	
	pass %	Completion %	pass %	Completion %	pass %	completion %	pass %	completion %
2010-2014	100	100	100	100	100	100	100	100

2009-2013	100	100	NA	NA	NA	NA	NA	NA
2008-2012	100	100	NA	NA	NA	NA	NA	NA
2007-2011	100	100	NA	NA	NA	NA	NA	NA

Comparison of Pass Percentage between other two Institutions of Murshidabad District:

Batch	CE			ME			CSE			IT			ECE			AEIE			EE		
	DIET	MCET	GCETT	DIET	MCET	GCETT	DIET	MCET	GCETT	DIET	MCET	GCETT	DIET	MCET	GCETT	DIET	MCET	GCETT	DIET	MCET	GCETT
2010-2014	NA	NA	---	NA	---	100	91.6	97.5	100	100	100	---	100	100	---	100	83.3	---	100	100	100
2009-2013	NA	NA	---	NA	---	NA	100	100	NA	100	100	---	100	100	---	100	NA	---	100	100	NA
2008-2012	NA	NA	---	NA	---	NA	100	100	NA	100	100	---	100	100	---	100	NA	---	100	100	NA
2007-2011	NA	NA	---	NA	---	NA	100	100	NA	100	100	---	100	100	---	100	NA	---	100	NA	NA

Comparison of Completion Percentage between other two Institution of Murshidabad District

Batch	CE			ME			CSE			IT			ECE			AEIE			EE		
	DIET	MCET	GCETT	DIET	MCET	GCETT	DIET	MCET	GCETT	DIET	MCET	GCETT	DIET	MCET	GCETT	DIET	MCET	GCETT	DIET	MCET	GCETT
2010-2014	NA	NA	---	NA	---	100	75	97.5	100	100	100	---	92.3	100	---	72.7	83.3	---	100	100	100
2009-2013	NA	NA	---	NA	---	NA	95	100	NA	91	100	---	100	100	---	100	NA	---	98.3	100	NA
2008-2012	NA	NA	---	NA	---	NA	95	100	NA	84.7	100	---	100	100	---	100	NA	---	86.9	100	NA
2007-2011	NA	NA	---	NA	---	NA	95	100	NA	98.4	100	---	95	100	---	100	NA	---	100	NA	NA

5.2.3 How does the institution facilitate student progression to higher level of education and/or towards employment?

The institute facilitates student progression to higher level of education and/or towards employment, as follows:

Student progression to higher level of education:

The college faculty members always give confidence to the student for higher studies. The faculty members help the students in class and beyond class rooms, some of our faculty members stayed at hostel and they always help the students in solving problems.

Student progression towards employment:

Institution conducts in-house training and also hires external training companies to train the students for the various skill developments like aptitude, communication skill, and group discussion. The students are also trained how to face the personal and technical interview.

5.2.4 Enumerate the special support provided to students who are at risk of failure and drop out?

Followings are the special support provided to students who are at risk of failure and drop out:

- Conducting frequent Counselling by the class teachers and HOD.
- Arranging Remedial Classes.
- Arranging Special Coaching.
- The Institute waives the fee as per TFW scheme.
- The Institute provide free-ships (half/full/partial free-ship) to the students who are needy, meritorious and punctual in class.
- Liaison with banks for bank loan.
- Providing part-time job in sister organisations.

5.3 Student Participation and Activities**5.3.1 List the range of sports, games, cultural and other extracurricular activities available to students. Provide details of participation and program calendar.**

Followings are the extra-curricular activities available to the students:

Games & sports:**Outdoor Games-**

- (1) Football Tournament,
- (2) Cricket Tournament,
- (3) Women Cricket Tournament,
- (4) Volleyball Tournament,
- (5) Badminton Tournament,

Indoor Games-

- (1) Carom Tournament,
- (2) Chess Tournament,
- (3) Table Tennis Tournament,

Cultural activities and other extracurricular activities:

- (1) Dancing,

- (2) Singing,
- (3) Recitation,
- (4) Debate,
- (5) Staging of drama.

Followings are the details of participation and program calendar:

The students take part in Intra-college competitions conducted in months of February/March every year as per the pre-decided academic calendar and the prizes are distributed accordingly, as follows,

Year	Number of student participated	Number of prize distributed
2014	Cricket – 121	14
	Football – 110	4
	Volleyball – 56	3
	Badminton – 16	2
2013	Football – 110	4
	Cricket – 132	15
	Badminton – 16	2
	Women's cricket – 22	6
2012	Football – 110	4
	Cricket – 154	17
	Badminton – 16	2
	Women's cricket – 44	7
2011	Cricket – 154	17
	Badminton – 16	2
	Women's Cricket – 44	7

Cultural activities:

Cultural activities pertaining to Annual day are under the supervision of cultural committee comprising faculty members and students. The events organized include Dance, Singing, Recitation, Debate, Play and many other events. The details of the student participation are given below:

Year	Events	No of student participated	No of prizes won
2014	Dance, Singing, Recitation, Debate, Play	45	10
2013		22	10
2012		55	10
2011		28	10

Program Calendar is, as follows:

Sl No	Event	Date
1	Education Fair	23 rd January – 25 th January, 2014
2	Inter Departmental Quiz Competition	1 st February, 2014
3	Debate & Discussion	2 nd February, 2014
4	Carom Tournament, Chess Tournament & Table Tennis Tournament	11 th February, 2014
5	SKC Memorial Cricket Tournament	12 th February, 2014
6	Women's Cricket, Volleyball & badminton Tournament	12 th February, 2014
7	General seminar	29 th – 30 th March, 2014
8	Poster & Model Presentation of B Tech Final Year Project	10 th – 11 th May, 2014
9	Poster & Model Presentation of M Tech Final Year Project	11 th May, 2014
10	Social	3 rd May, 2014
11	Alumni & Reunion	4 th May, 2014
12	Football Tournament	2 nd – 3 rd September, 2014
13	Teacher's Day Celebration	5 th September, 2014
14	Fresher's Welcome	10 th September, 2014

5.3.2 Furnish the details of major student achievements in co-curricular, extracurricular and cultural activities at different levels: University / State /Zonal / National / International, etc. for the previous four years.

Following are the details of major student achievements in co-curricular, extracurricular and cultural activities at different levels:

S.N	Name	Stream	Major achievements
1	Rupak Karmakar	CSE	Winner Recitation Competition 2012 at Education Fair, BES. News anchor at leading news channel.
2	College Cricket team. Shamim Akthar(captain) 2012	All stream	Semi-finalist of University Cricket Championship-2012

3	Anupam Kumar	ME	Recorded Songs for Asha Audio, 2014
4	Mehedi Hasan	M Tech(ECE)	Published International Journal in 2013
5	Habib Mondal	M Tech(ECE)	Published International Journal in 2013
6	N Sk	M Tech(ECE)	Published International Journal in 2013
7	A Mazumdar	M Tech(ECE)	Published International Journal in 2014

5.3.3 How does the college seek and use data and feedback from its graduates and employers, to improve the performance and quality of the institutional provisions?

The Institute seek and use data and feedback from its graduates and employers, to improve the performance and quality of the institutional provisions, as follows:

Graduates:

The Institute collects feedback form from every student in every semester in order to improve the Quality of Education.

A questionnaire consisting of several remarks and comments is distributed. There are following types of questionnaire:

- (1) Overall college feedback form,
- (2) Subject wise feedback form,
- (3) Library feedback form, and
- (4) Training and Placement form.

After collection the feedback forms are analysed and the suggestions are given sent to appropriate authority.

Employers:

Training and placement cell collects regular feedback from the companies in which the students are been placed. Following are the major few questions asked to the employers in order to improve Training and Placement drive:

- (1) Whether they are interested to recruit fresher's by opting On – Campus drive/Pull campus drive from the institution regularly.
- (2) Whether they are appreciating our infrastructure and students quality and also appreciate the entire educational environment of our college.
- (3) Whether they like our hospitality and hosting capability when they visit our campus.
- (4) After conducting the campus interview are they delighted and want to be involved in such an industry-academia relationship?
- (5) Any suggestion for overall improvement.

These feedbacks are analysed and resultant suggestions are sent to appropriate authority.

5.3.4 How does the college involve and encourage students to publish materials like catalogues, wall magazines, college magazine, and other material? List the publications / materials brought out by the students during the previous four academic sessions.

The Institute involves and encourages students to publish materials like catalogues, wall magazines, college magazine, and other material, as follows:

Catalogues:

The Institution publishes Catalogues every year contains of picture of students of various competitions at college premises.

Wall Magazines:

The Institution publishes wall magazines mainly includes students creation on different aspects which includes mainly recent affairs of the world in every year.

College Magazine:

The Institution publishes College magazine every year.

Other material:

Creations from students are been encouraged. The institution publishes other material eventually. Department encourage the students to prepare and display the working models as “poster presentation”

The college encourages the students to participate and publish Research Papers in both the National and International conferences under the guidance of faculty members and also students are encouraged to contribute materials for Institute’s magazine.

Students are given the required motivation and conceptual help for preparing technical papers at National level paper contests and financial support is provided as per norms.

Following is the list of the publications/materials brought out by the students during the previous four academic sessions:

Publication in Journal

- **Mehedi Hasan**, a student of M Tech of ECE department has published a paper entitled “CAD Model of Connected Rectangular Ring Micro-strip Antenna for Dual-band Operation” in International Journal of Engineering & Management Research, Vol-3, Issue: 6, Year: 2013.

- **Habib Mondal**, a student of M Tech of ECE department has published a paper entitled “Design of Single Band Rectangular Patch Antenna for Satellite Application” in International Journal of Engineering & Management Research, Vol-3, Issue: 6 Year: 2013.
- S Mondal, **N Sk** (a student of M Tech of ECE department), P.K.Karmakar, have published a paper entitled “Estimation and Comparasion of Antenna Temperature and Water Vapour Attenuation at Microwave Frequencies over Northern and Southern latitude,” in International Journal of Innovative Technology and Exploring Engineering, Vol.3, Issue- 7, pp.135-139 ,2013.
- S Mondal, **N Sk** (a student of M Tech of ECE department), P K Karmakar, have published a paper entitled “Analysis of Water Vapour Weighting Function in the range 58 degree North through 45 degree South over the Globe,” in International Journal of Engineering Research and Applications, Vol 3, Issue 6, 2013.
- S Mondal, **A Mazumdar** (a student of M Tech of ECE department), P K Karmakar, have published a paper entitled “Estimation of water vapour Attenuation variations at Microwave Frequencies Over Kolkata, India,” in European International journal of Science and Technology, (Paper Accepted).

Poster Presentation

- **Arzoo Rafie**, a student of M Tech of ECE department has published a paper entitled “Study of Hot Electron Effect In LD-MOS Using Atlas” on 29th September, 2012 in Jadavpur University.
- **Snehasish Shekhar Das, Moumita Jana, Smiti Mondal, Biswanath Basak**, students of B Tech of ECE department have published a paper entitled “Green Energy Recognition In The Field of Instrumentation” on 3rd April, 2011.

5.3.5 Does the college have a Student Council or any similar body? Give details on its selection, constitution, activities and funding.

Student Body:

As per affiliating WBUT there is no provision to form Student Council.

Selection, constitution, activities and funding of the Student body:

As there is no provision of student council but this Institute nominates two representatives from each class and makes a body of the students’ representatives under the supervision of senior faculty members so that day to day academic and administrative works are conducted smoothly.

5.3.6 Give details of various academic and administrative bodies that have student representatives on them.

The Institute has various academic and administrative bodies that have student representatives as members. This representation in turns helps them for their overall development. These bodies create more avenues for students to develop technical skill, updating knowledge on the state-of-the-art subjects, personality development, managerial skills and service to society. The advisers from faculty guide the students in the smooth and efficient conduct of the said activities.

Followings are the details of various academic and administrative bodies that have student representatives on them:

Academic bodies:

- (1) Library Committee,
- (2) Departmental academic sub-committee,
- (3) Magazine committee.

Administrative bodies:

- (1) Anti Ragging Committee,
- (2) Games & Sports Committee,
- (3) Cultural Committee,
- (4) Alumni Association,
- (5) Placement Cell.

5.3.7 How does the institution network and collaborate with the Alumni and former faculty of the Institution.

The institute networks and collaborates with the Alumni and former faculty of the Institute, as follows:

Alumni:

Annually meeting are held in the Institute premises, inviting Alumni. They do regularly visit and attend the same; suggestions are taken and incorporated for the development of the college. The members of the college administration and the faculty of all the departments normally participate in the annual alumni meetings on invitation and seek their advice and support for the development of institution.

Former faculty:

In this context this Institute has an old system of keeping in professional touch with former faculty. We keep our former faculties do regularly visit the college in the context of seminars, presentation, workshops etc. Each department maintains the data base of them and thus interacts with them through mails, social networking sites, etc.

CRITERION VI: GOVERNANCE, LEADERSHIP AND MANAGEMENT

6.1 Institutional Vision and Leadership

6.1.1 State the vision and mission of the Institution and enumerate on how the mission statement defines the institution's distinctive characteristics in terms of addressing the needs of the society, the students it seeks to serve, institution's traditions and value orientations, vision for the future, etc.?

The Vision and Mission of the Institution are:

Vision

To become a World Class Institute Devoted to Teaching & Research and to Dedicate Ourselves in the "Service of Humanity".

Mission

- To Provide Better Quality Of Education & Training
- To Substantially Upgrade our Existing Facilities to Make our "Institutional Development" Sustainable for the New Technological Era.

The mission statement defines the institution's distinctive characteristics in terms of addressing the needs of the society, the students it seeks to serve, institution's traditions and value orientations, vision for the future, etc, as follows:

Needs of the society

Central Act and State Government Policy help to expand the technical education in India but the quality of the engineers have been reduced in the era of globalisation and competitiveness. Society as well as industry needs quality engineers for national development.

Students it seeks to serve

The institute seeks to serve students from diverse community, social strata, gender, urban and rural and physically challenged.

Institution's traditions and value orientations

The Institute always endeavours to provide quality education and training.

The Institute always tries to upgrade its infrastructure and it never compromises with quality.

Vision for the future

Vision of the institute for the future is to become a world class institute for moulding quality engineers and world leaders.

Quality Policy

The Institute is committed to effective and efficient transaction of teaching learning and training process to the students through the dedicated faculty and staff working effectively with updated and innovative knowledge, skills and

environmental consciousness. Society and the industries need not only quantitative engineers but quality engineers in the era of globalization and competitiveness. With these views the institute dedicated to develop itself to world class institute by providing best facilities to create quality engineers with humanity, morality and ethics, for national and world development. Collective efforts and individual responsibility shall be the main culture.

6.1.2 What is the role of top management, Principal and Faculty in design and implementation of its quality policy and plans?

Top management

The Governing Body, consisting of representatives of the AICTE, Government of West Bengal, West Bengal University of Technology, Faculty of the Institute and the managing Basantapur Education Society, constituted as per AICTE norms, is the top management of the Institute. The top management enumerates all the responsibilities to the institution, distributes the responsibilities among the different faculty and staff and briefs the respective faculty and staff, accordingly.

Principal

The Principal, the Vice Principal and the Registrar provide administrative and academic leadership. They work with faculty and staff in a concerted way.

Faculty

Faculty members express their views and opinions in evolving strategic plan for academic growth. The Principal collects the information and feed-back from various source and ways and place it to the management. The management considered the valid feed-back and information for designing plan and strategy. With the collective efforts of the management, Principal and the faculty the institution in design and implementation of its quality policy and plans and maintains a harmonious relationship and culture conducive to teaching-learning process.

6.1.3 What is the involvement of the leadership in ensuring:

- **the policy statements and action plans for fulfillment of the stated mission**
- **formulation of action plans for all operations and incorporation of the same into the institutional strategic plan**
- **Interaction with stakeholders**
- **Proper support for policy and planning through need analysis, research inputs and consultations with the stakeholders**
- **Reinforcing the culture of excellence**
- **Champion organizational change**

Followings are the involvement of the leadership in ensuring the fulfilment of the stated mission is, as follows:

Involvement of the leadership in ensuring the policy statements and action plans for fulfilment of the stated mission

To materialise the quality policy statement into action the leadership ensures to provide infrastructural and other facilities. Budgetary allocation is made by the management on the basis of the needs and requirements of each department prepared beforehand on the eve of the each semester.

The management also developed a language laboratory to improve English communication skills required for the targeted students who later on served better in their placement.

The leadership encourages and supports in covering the curricular and extra-curricular, plans in holding the seminars and symposia, workshops, guest lecture to improving teaching-learning process. The leadership is discharging responsibility to transform the students into quality engineers for the society.

Involvement of the leadership in ensuring formulation of action plans for all operations and incorporation of the same into the institutional strategic plan

The management enumerates and distributes the responsibilities to formulating the action plans for all operation on the light of the quality policy statement. Management has realized the strategic plan into action. The academic plans include: Academic Calendar on the curriculum and academic schedule of the affiliating WBUT, Calendar of events of all co-curricular and extra-curricular activities, lesson and course plan and budgetary allocation and sanctions.

Involvement of the leadership in ensuring interaction with stakeholders

The management always keeps in touch with the stakeholders whom the institution is serving. The stakeholders find avenue on how they interacts with the management. The management received feedback and information by various means from the stakeholders by interacting with:

- i) The faculty and staff in the meeting both formal and informal,
- ii) The Parents during admission and counselling session,
- iii) The students of the institution,
- iv) The alumni in the annual meet,
- v) The academicians when they visit,
- vi) The industries in which students are imparted training,
- vii) Recruiting company –who made placement drive.

The Principal always keep in touch with the faculty and staff and other stakeholders. They expressed their views, opinion and suggestion. All the valid information is considered, reviewed, analyzed and decision made. The correctional measures are taken on the light of the decision.

Involvement of the leadership in ensuring Proper support for policy

and planning through need analysis, research inputs and consultations with the stakeholders

The various organs, departments and units of the institution placed requirements. The Research and consultancy committee also submit their proposal. The feedbacks from the various stakeholders are received through various means. All these are analyzed through which the policy framed and plan chalked out for fulfilment of academic requirements and smooth running of the institution. The management supports all these activities by involving all the stakeholders for formulating policy and designing planning.

Involvement of the leadership in ensuring Reinforcing the culture of excellence

The institution is implementing best and innovative practices for sustenance and development of academic excellence. The management provides such academic leadership that motivates faculty and staff operating in the academic milieu. The Tata Consultancy Services (TCS) has accreditation the institute for placement drive.

Involvement of the leadership in ensuring Champion organizational change

With due emphasis on tradition the institute believes in change taking place in the society and the emerging area of technical education in the globalized and competitive era, the stakeholder's exceptions are considered for the benefit of the institute. In designing the strategy and plan the parameters of performance in examination, placement rate, publication in journals, presentation of papers in conferences, research works, consultancy services, uses of up dated technology are considered. The faculty and staff execute strategy and plan. The management is deeply involved in enhancing quality and excellence in academic area and design strategy for organizational change in the light of the above.

6.1.4 What are the procedures adopted by the institution to monitor and evaluate policies and plans of the institution for effective implementation and improvement from time to time?

The institution is an affiliated College of West Bengal University of Technology. Under the academic leadership of the affiliating University, followings are the procedures adopted by the Institute to monitor and evaluate policies and plans of the institution for effective implementation and improvement from time to time:

In a regular meeting of the academic committee the teaching learning process, research and consultancy works, student progression and other academic activities are reviewed. The admission scenario, attendance of the students

in a classroom interaction, assignment of the students, results in the class test and final examination, participation in co-curricular and extra-curricular activities are also reviewed. Few students are found to be under-motivated in their academic performances. The committee formulates policies and plans to take correctional measures for maintaining quality of the academic activities.

6.1.5 Give details of the academic leadership provided to the faculty by the top management?

The top management provides leadership to the faculty, as follows, by:

- I) providing freedom to discharge their responsibilities in teaching-learning;
- II) Encouraging and providing financial support to journal publication, seminar and refresher course and research works;
- III) Encouraging them for their academic advancements;
- IV) Supporting the initiatives for designing plan for slow as well as inquisitive learners;
- V) Developing new experimental set up in the laboratories;
- VI) Setting up R & D projects;
- VII) Encouraging improving their qualification.

6.1.6 How does the college groom leadership at various levels?

All administrative, academic and financial activities are guided by the Rules, Regulations and norms of the AICTE, the affiliating West Bengal University of Technology, Government of West Bengal and institutional policy and strategy. Under the general supervision of the management the HOD and chairperson/Convener of various academic and administrative bodies under principal work. The HOD and other Heads of the body allot responsibilities to the faculty and staffs. They discharge responsibility accordingly. Their performances are reviewed and monitored. In the process they feel self actualised and confident, play the leadership role in the respective arena in a concerted way. In this process of decentralisation and transparency in good governance they are groomed for leadership. The management nourished and nurtured them so that they can perform leadership role.

6.1.7 How does the college delegate authority and provide operational autonomy to the departments / units of the institution and work towards decentralized governance system?

The Institute delegates authority and provides operational autonomy to the departments/units of the institution and look towards decentralized governance system in the following way:

- I) The Board of Governors is responsible of overall management of the institution;
- II) The management delegate authority to the different department and units;
- III) The management provides operational autonomy to the respective departments and units of the institution;
- IV) The departments and units prepare plan and strategy for effective institutional development.
- V) Responsibilities are defined and the HOD and chairperson/Convener take appropriate action as per policy and strategy of the institution.
- VI) The department and units operate financially on the basis of the approved budgetary allocation.

6.1.8 Does the college promote a culture of participative management? If 'yes', indicate the levels of participative management.

Yes.

The college promotes a culture of participative management.

At the commencement of the semester the staff council meeting held and the views, opinion and the concern on the strategy and planning are discussed elaborately. The institutional internal meeting of the HOD with the principal are held regularly. The discussions and deliberations in the meeting of the HOD are also considered. Internal issues are discussed in the departmental meeting. The student, alumni, members of the community and other stakeholders express their views and suggestions for institutional development. The Principal collects the issues in concerned areas and place it to the management. The management takes these into consideration and formulates policy and design strategic plan accordingly with the due participations of the faculty and staff and other stakeholders collectively or individually.

6.2 Strategy Development and Deployment

6.2.1 Does the Institution have a formally stated quality policy? How is it developed, driven, deployed and reviewed?

Yes,

The institution has a formally stated quality policy.

Development of the quality policy

The quality policy is developed, driven, deployed and reviewed, as follows:

The quality policy is developed as,

The central legislation and state government policy paved the way for quantitative growth of engineers. But the concern is that the quality engineers

should grow for the regional and global employment market. The institute confirmed that in order to grow quality engineers in the era of globalization and competitiveness the institution shall be equipped with best infrastructure. But emphasis shall be given on the human aspects of the institution. So the institute engaged in imparting quality technical education by dedicated faculty who updated their knowledge and skills continuously and by innovative and best practices. The ultimate goal of the institute is to mould best quality engineers. The quality policy has been developed with this very idea.

Driving of the quality policy

The quality policy is driven as,

All works and performances are driven by this policy. Continuous improvement of teaching learning training process through various means is taken into the institution. Improvement of pass percentage, placement rate, publication and presentation of papers, participation in refresher course and research works are also continuously done in the institution.

Deployment of the quality policy

The quality policy is deployed as,

The faculty and staff works together with a team spirit to achieve quality policy.

Review of the quality policy

The quality policy is reviewed as,

The quality policy is continuously monitored evaluated and analysed during semester and correctional measures are taken to enhance the quality.

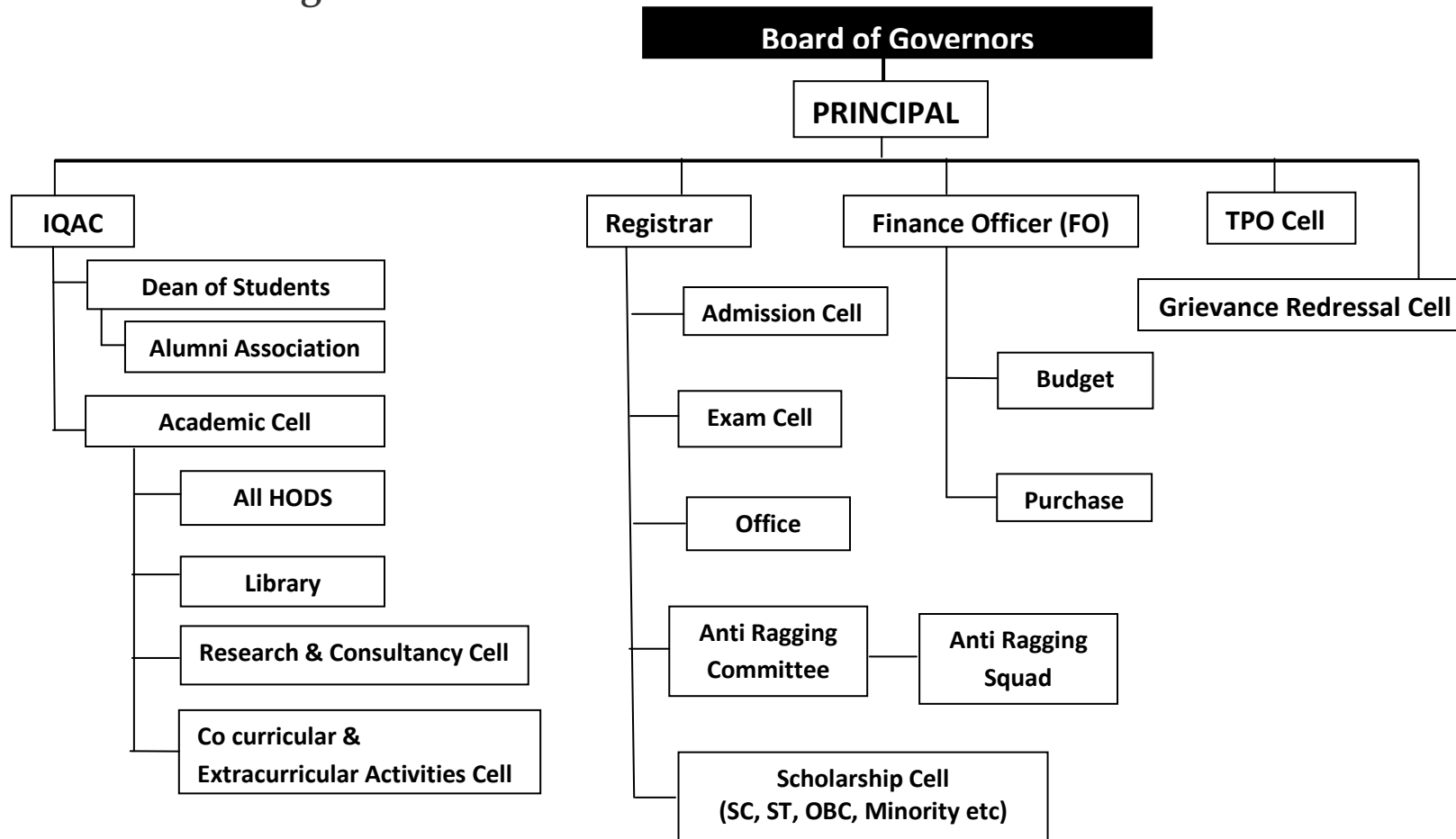
6.2.2 Does the Institute have a perspective plan for development? If so, give the aspects considered for inclusion in the plan.

Yes, the institute has a perspective plan for development for the period from 2010 to 2020. The aspects considered for inclusion in the plan are, as follows:

- To make it as centre of excellence.
- To obtain accreditation of NBA of all programme of the institute.
- To introduce PG courses in Engineering & Technology.
- To introduce second shift in diploma courses in engineering & technology.
- To construct separate block (building) for all programme of the institute.
- To secure NAAC accreditation with higher rating.
- To mould best quality engineers.
- To introduce dual degree programme.
- To obtain UGC registration under 2(f) and 12(b).

6.2.3 Describe the internal organizational structure and decision making processes

Internal organizational structure



- The Board of Governors is responsible of overall management of the institution. Under general supervision and guidance of the management the principal works.
- The principal is the head of the institution. He looks after all the academic, administrative and financial activities of the institute. Principal links between the management on the one side and the faculty and staff on the other side.
- The Registrar and Finance Officer under the supervision of the principal works as per policy and rules of the institution.
- HOD prepare academic plan, execute it by forming various academic bodies and also prepare budget projection of the department.
- Coordinators of academic and administrative bodies function under the guidance of the principal.

6.2.4 Give a broad description of the quality improvement strategies of the institution for each of the following

The followings are the quality improvement strategies of the Institute:

Teaching & Learning

- Providing e-learning resources in the library,
- Providing e-class rooms in each department with networking facilities,
- Developing and strengthening the laboratory in accordance with the updated curricula of the programme,
- Imparting special trainings to improve the employability of the student by the institution and also with the help of external agencies,
- Maintaining course file and laboratory manual,
- Conducting remedial classes for slow learners continuously,
- Collecting feedback from the students on teacher performance and curriculum transaction to analyse and taking correctional measures as a follow-up action,
- Developing the system of academic audit to improve the academic growth of the institution.

Research & Development

- Constituting research committee for continuous advancement of research and development activities,
- Allocating and sanctioning budget for institutional research & development,
- Encouraging publication in journal and presentation of papers in conferences and seminars,

- Encouraging participating in seminars, conferences and symposia,
- Arranging preparation of model by the student.

Community engagement

- Holding blood donation camps,
- Organizing awareness programmes on the menace of arsenic in the nearby area,
- Involving eco-friendly activities,
- Organizing NSS activities.

Human resource management

- Maintaining transparent recruitment policy of the faculty and retired faculty as per policy of AICTE and affiliating West Bengal University of Technology norms and guidelines,
- Recruiting staffs as per policy of the state government,
- Maintaining the service conditions and salary structure as per policy and directive of the state government,
- Imparting training to staffs in related issues and identified area of assignment,
- Encouraging the faculty and staff to enhance their qualification and academic advancement,
- Maintaining transparent promotional policy based on the performance appraisal system developed for promotion of the cadre,
- Following the institutional policy of participative management.

Industry interaction

- Maintaining cordial and harmonious interaction towards industry for campus recruitment,
- Arranging industrial training of the student and consultancy activities.
- Developing mechanism and analyzing feedback received from the industry for strategic planning to ensure continuous developments of the prevailing industry-institute relationships.

6.2.5 How does the Head of the institution ensure that adequate information (from feedback and personal contacts etc.) is available for the top management and the stakeholders, to review the activities of the institution?

The Head of the institute ensures that adequate information (from feedback and personal contacts etc.) is available for the top management and the

stakeholders, to review the activities of the institution, as follows:

The institutional existing practice provides that the principal, the head of the institute, checks the feedback and other information received from personal contact with the faculty, student, alumni, industry and community in respect of teaching quality curriculum transaction, co-curricular and extra-curricular activities, lab and infrastructural requirement and identifies the valid information. He places the valid information before the management. The management in its meeting review and analyzed the activities of the institution on the basis of the valid information. Activities of the institution and the decision adopted by the management are communicated to the various stake-holders through circulars and institutional website.

6.2.6 How does the management encourage and support involvement of the staff in improving the effectiveness and efficiency of the institutional processes?

The management encourages and supports the involvement of the staff for improvement of the effectiveness and efficiency of the institutional process by:

- i) Encouraging in staff to identify with the institution;
- ii) Encouraging their dynamic and proper initiative;
- iii) Promoting their belongingness;
- iv) Supporting their academic development and advancement;
- v) Motivating them for self-actualization and achievements;
- vi) Involving them in the decision-making process towards a policy of systemic and participative management; and
- vii) Involving them in the implementation and execution of the policy.

6.2.7 Enumerate the resolutions made by the Management Council in the last year and the status of implementation of such resolutions.

Followings are the resolutions adopted by the Board of Governors in its meeting held in 2013, (on 25-05-2013 & 14-12-2013 respectively)

Resolution dated 25-05-2013

Item	Resolution adopted	Status Report
3	Odd semester results analyzed	Measures are taken to improve the results
4	Approved the audited statement of account for 2012-2013	Approved
5	Resolved to remove the	Deficiency removed

	deficiency with AICTE's approval Letter for 2013-2014	
6	Anti ragging measures taken	No incident of ragging reported
7	NAAC & NBA accreditation	Received LOI vide Letter No-NAAC/E & NE/BSM/CYCLE-1/ SSR /WBCOGN 21029/2014 dated-16-05-2014. NBA accreditation is in progress.

Resolution adopted on 14-12-2013

Item	Resolution adopted	Status Report
3	Purchasing of ME and EE Lab, Library Books	Already purchased
4	Introduction of PG courses in EE	Application is in progress.
7	Approval of the newly recruited faculty subsequent to previous meeting.	Approved
8	Granting of leave application of faculty and staff.	Leave granted
9	Permission for undergoing PhD works and participation in seminar, conference and workshop.	Permitted
10(d)	Obtaining UGC Registration under section 2(f) and 12(b) of UGC Act.	Is in Process

6.2.8 Does the affiliating university make a provision for according the status of autonomy to an affiliated institution? If 'yes', what are the efforts made by the institution in obtaining autonomy?

The affiliating West Bengal University of Technology Act makes no provision for according the status of autonomy to the affiliated institution.

So the institution does not make any efforts for obtaining autonomy.

6.2.9 How does the Institution ensure that grievances / complaints are promptly attended to and resolved effectively? Is there a mechanism to analyze the nature of grievances for promoting better stakeholder relationship?

The institution is run in a transparent way. The faculty, student and other stakeholders are free to file any grievances/complaints.

Yes, there is a mechanism to analyse the nature of grievances for promoting better stakeholder relationship. The institution has a grievance redressal cell in place to look into the grievance/complaints. All grievances/ complaints analysed and solved within a stipulated time frame for promoting better stakeholders relationship.

6.2.10 During the last four years, had there been any instances of court cases filed by and against the institute? Provide details on the issues and decisions of the courts on these?

There were no instances of court cases filed by and against the institution during the last four years.

6.2.11 Does the Institution have a mechanism for analyzing student feedback on institutional performance? If 'yes', what was the outcome and response of the institution to such an effort?

Yes,

The institution has mechanism for analysing student feedback on institutional performances. The institution obtained students' feedback on institutional performance.

Outcome and response of the Institute was as follows:

The response of the top management of the Institute was to brief the Principal for better performance, and the outcome was better performance

6.3 Faculty Empowerment Strategies

6.3.1 What are the efforts made by the institution to enhance the professional development of its teaching and non teaching staff?

Followings are the efforts made by the institution to enhance the professional development of its teaching and non teaching staff:

The institute has sponsored the following faculty and staff for improving their professional development

S1	Name	Dept	Qualification	University/ Organisation
01	Mriganka Roy	EE	ME(Pursuing)	JU
02	Hasanujjaman	ECE	MTECH	WBUT
03	Shoumik Bhowmik	CSE	ME	JU
04	Suparna Maity	EE	MTECH	WBUT
05	Sunny Biswas	IT	ME	WBUT
06	Rajesh Mukherjee	CSE	ME	JU

07	Subhrojyoti Mondal	CSE	M Tech	WBUT
08	Sahnaoj Ahamed	IT	MTECH	WBUT
09	Proton Sarkar	CSE	MTECH	WBUT
10	Subhashis Biswas	CSE	MTECH	WBUT
11	Subhadeep Chakraborty	EE	ME	JU
12	Arindam Biswas	ECE	MTECH	CU
13	Gopal Krishna	EE	ME	JU
14	Jahirudding Ahamed	IT	M Tech	WBUT
15	Bikram Dutta	EE	ME	JU
16	MD Taslim Haider	ECE	ME	JU
17	Chandrani Nath	EE	M E	WBUT
18	S Raja	ECE	ME	JU
19	Krishan Bondypahay	EIE	ME	IEST
20	Sankar Karmaker	CSE	ME	IEST
21	Sandipon Biswas	CSE	ME	JU
22	Arun Kumar Sadhu	IT	MTECH	WBUT
23	Sohadev Roy	ECE	MTECH	IEST
24	Retwick Chatterjee	CSE	ME	JU
25	Sofukureshi Mondal	IT	MTECH	CU
26	Sukanta Mondal	CSE	MTECH	WBUT
27	Jakir Hossain Molla	CSE	M Tech	CU
28	Anupom Roy	CSE	M E	JU
29	Md Hamid Islam	CSE	ME	JU
30	Suman Saha	ECE	M Tech	CU
31	Pallav Jyoti Pal	Math	PhD	Visva-Bharati
32	Sanjoy Chatteraj	ME	PhD Pursuing	JU
33	Asis kumar Mondal	Chem	PhD Pursuing	CU
34	Madhu Sudhan Das	ECE	ME	JU
35	Samiran Sarkar	ECE	M Tech	WBUT
36	Sharmin Shabnam	ECE	M Tech	WBUT

Institution grants academic leave and pays registration fees to the faculty for attending Seminars, Conferences, Symposia and Workshops at regional and national levels. They are provided training for academic excellence and motivated for awarding Best Teacher Award.

Non-teaching staffs are provided with training on computer application and English communication skills. They are also encouraged to upgrade their qualifications.

The following non-teaching staffs have upgraded their educational qualification

Sl	Name	Degree Obtained	University/ Organization
1	Morjina Khatun	BA (H), MA in History	KU
2	Billal Hossain	HS	WBSCVET
3	Habibul Islam	BA, B LIS	KU, RBU
4	Abdus Sahid Molla	HS	WBCHSE

6.3.2 What are the strategies adopted by the institution for faculty empowerment through training, retraining and motivating the employees for the roles and responsibility they perform?

The following are the strategies adopted by the institution for faculty empowerment through training, retraining and motivating the employees for the roles and responsibility they perform:

- i) Organising training programmes for the newly recruited faculty on instructional design and delivery by the expert faculty at the outset of each semester to improve quality of teaching;
- ii) Holding of guest lectures, seminars and workshops for the faculty on new and emerging technology during the academic year for dissemination of knowledge and skills;
- iii) Sponsoring faculty for participating in refresher course;
- iv) Sponsoring faculty for training programme;
- v) Constituting different academic and administrative bodies with the faculties as convener/coordinator assigning their responsibility, allocating work and delegating autonomy to play the role;
- vi) Awarding best teacher awards to the faculty in recognition to talent and expertise of the faculty.

6.3.3 Provide details on the performance appraisal system of the staff to evaluate and ensure that information on multiple activities is appropriately captured and considered for better appraisal.

The Institute has a system of appropriately capturing and analysing the information on multiple activities for better performance of the faculty. The feedback and information on the performance of the faculty in attending allotted theory and practical classes, their mentoring activities to the students, participation in co-curricular and extra-curricular activities are adequately obtained from the Principal, students and other stakeholders.

The faculty also provide data and relevant information on curriculum transactions, participation in co-curricular and extra-curricular activities,

presentation and publication of papers, attending conference and seminar. These feedback and information are reviewed and analysed and suggestions for improvement of the identified areas are made and implemented through the mechanism.

6.3.4 What is the outcome of the review of the performance appraisal reports by the management and the major decisions taken? How are they communicated to the appropriate stakeholders?

Outcome and major decisions taken

The outcomes of the review of the performance appraisal report are manifested in the award of annual increment and incentive; promotion of the faculty to the higher level.

Communication to the stakeholders

These are communicated to the faculty by administrative order on award of increment, incentive and promotion; and also award like Best Teacher.

6.3.5 What are the welfare schemes available for teaching and non teaching staff? What percentage of staff have availed the benefit of such schemes in the last four years?

The followings are some of the welfare schemes for the faculty and staff:

- i) The institution provides accommodation to the faculty, if requires.
- ii) EPF facilities including insurance and pension are provided to the qualified staffs.
- iii) Women employees are given maternity leave with pay.
- iv) The staffs are sanctioned interest free loans.

Followings are the percentage of staff, who availed themselves of the benefit of schemes:

- i) 6.4% of the staff have availed the benefit of accommodation facility.
- ii) 40.80% of the staff have availed the benefit of EPF facility.
- iii) 100% of the women employees, who applied for granting maternity leave, have availed the benefit of maternity leave.
- iv) Have availed the benefit of interest free loans

6.3.6 What are the measures taken by the Institution for attracting and retaining eminent faculty?

The institution maintains an environment of excellent work culture in teaching-

learning process, co-curricular and extra-curriculum activities, paper presentation in seminar, conference etc that attracted the faculty. The senior faculty is provided with accommodation, conveyance and their workload and assignment are prepared for the benefit of the institution and the senior faculty.

6.4 Financial Management and Resource Mobilization

6.4.1 What is the institutional mechanism to monitor effective and efficient use of available financial resources?

The institution has mechanism to monitor effective and efficient use of available financial resources.

To fulfill the mission of the institution it allocates limited financial resources, the only fee collected from the students at rate fixed by the Government of West Bengal. On the basis of the income generated in the institution the revenue and capital expenditure of each department, are projected. The departments and units of the institution prepare the institutional budgetary planning of revenue and capital expenditure. Finally the management approves the budgetary planning. Each department utilizes it on the basis of the budgetary allocation. Purchase committee recommend for purchasing of goods. If any excess expenditure is done beyond budgetary allocation that has been ratified by the management in due course.

If the institution faces any deficit the institution has to seek support of the managing Basantapur Education Society.

6.4.2 What are the institutional mechanisms for internal and external audit? When was the last audit done and what are the major audit objections? Provide the details on compliance.

The institution has mechanism for internal and external audit.

Internal audit:

Internal audit is done by the Accountant of Institute.

External audit:

External audit is done by Chartered Accountant (CA), appointed by the managing Basantapur Education Society, annually.

The last audit was completed on 12-06-2014.

No objection was raised at any stage and no Para of audit is pending.

6.4.3 What are the major sources of institutional receipts/funding and how is the deficit managed? Provide audited income and expenditure statement of academic and administrative activities of the previous four years and the reserve fund/corpus available with Institutions,

if any.

The source of income is tuition fees collected from students at rates fixed by the State Government.

The deficit is managed by the managing Basantapur Education Society.

Audited income & expenditure for last 4(four) years are, as follows:

Sl	Description	2013-2014	2012-2013	2011-2012	2010-2011
1	Income	2,73,90,570/-	2,91,51,318/-	2,92,75,020/-	3,85,70,573/-
2	Academic Expenses	3,00,42,975/-	2,77,52,286/-	2,42,95,045/-	1,82,43,529/-
3	Administrative Expenses	2,09,39,752/-	2,38,35,424/-	3,38,15,362/-	2,24,96,134/-
4	Total Expenses	5,09,82,727/-	5,15,87,710/-	5,81,10,407/-	4,07,39,663/-

No Reserve / Corpus Fund is available with the Institute, as the managing Society manages the financial crisis.

6.4.4 Give details on the efforts made by the institution in securing additional funding and the utilization of the same (if any).

The institute applied for grant of fund for meeting the deficit of the institute to the state government but the government intimated the institute that they could not provide the fund to our self financing institute.

6.5 Internal Quality Assurance System (IQAS)

6.5.1 Internal Quality Assurance Cell (IQAC)

- a. Has the institution established an Internal Quality Assurance Cell (IQAC)? .6 If 'yes', what is the institutional policy with regard to quality assurance and how has it contributed in institutionalizing the quality assurance processes?**

The Institution has established an Internal Quality Assurance Cell (IQAC) on 19-08-2013

Institutional policy with regard to quality assurance:

- To continue to reform internal examination system;
- To continue faculty Development Programme (orientation programme, Refresher course);
- To hold more seminars, workshops, conferences;

- To publish papers, works in national and international peer reviewed journal;
- To strengthen collaboration with industry and institute;
- To develop linkage with the Research body, association;
- To continue to remedial classes for slow learners;
- To develop communication skills of the student;
- To hold guest lectures on issuing in the emerging field;
- To strengthen social, administrative & academic audit;
- To encourage the students to take part in the sports activities;
- To award Honour, award to the faculty;
- To engage in community services;
- To make the students national and world leaders;
- To conduct guidance and counseling;
- To enhance the employability of the student;
- To make the institute a centre for excellence.

The above policies are implemented in the institute and the policies have been institutionalized.

b. How many decisions of the IQAC have been approved by the management / authorities for implementation and how many of them were actually implemented?

The management of the institution committed to follow and implement the vision, mission and quality policy statement and has approved thirty seven decisions adopted by the IQAC and thirty four decisions have been implemented so far.

**c. Does the IQAC have external members on its committee?
If so, mention any significant contribution made by them.**

The IQAC has 2(two) external members on its committee.

They are-

- 1) Prof Dr Aniruddha Ghoshal,
Department of Radio Physics,
University of Calcutta, and
- 2) Prof Dr Mrinal Kanti Naskar,
Department of ECE (Embedded System)
Jadavpur University

They help the IQAC and the institution in implementing the planning and strategy

on quality policy efficiently. Prof Dr Aniruddha Ghoshal has contributed much to improve the functioning of the IQAC and emphasis on strengthening research and publication activities. The other external member Prof Dr Mrinal Kanti Naskar has guided the institute to explore areas for internal revenue generating system by promoting consultancy services.

d. How do students and alumni contribute to the effective functioning of the IQAC?

The student and alumni member of the IQAC place their suggestions to the body for strengthening the quality programme of the IQAC. Their suggestions are accepted and implemented to improve the quality of academic and administrative activities of the institution.

e. How does the IQAC communicate and engage staff from different constituents of the institution?

The representatives of faculty and non-teaching staffs have become members of the IQAC. The representative of the units like Administration, Finance, Library, Computer Centre, Student Welfare, Examination and Planning & Development are also the member of the IQAC. They participate in the discussion and deliberations and place their valuable suggestions for improving the curricular, co-curricular and extra-curricular, administrative and financial activities of the institution. These suggestions are taken into consideration and incorporated in the programme. The Chairman and the co-ordinator of IQAC interact with the faculty, non-teaching staff and other stakeholders and communicate the decisions through circulars, meeting and institutional website to implement the quality programme of the IQAC. Their participation in all the activities is ensured.

6.5.2 Does the institution have an integrated framework for Quality assurance of the academic and administrative activities? If 'yes', give details on its operationalisation.

Yes,

The institute has an integrated framework for quality assurance of the academic and administrative activities. In maintaining the quality standard set forth by the IQAC all the academic and administrative bodies and units closely follow and implement the decision of the IQAC. The institution has conducted Academic & Administrative Audit. On the basis of the audit the institute takes appropriate measures to improve the quality of academic and administrative activities.

6.5.3 Does the institution provide training to its staff for effective implementation of the Quality assurance procedures? If 'yes', give details enumerating its impact.

Yes.

The institute provide training to its staff for effective implementation of the quality assurance procedures.

The institution organize training programme to create on awareness among the staff, student and other stakeholders. All stakeholders are benefited through these activities. The quality policies are communicated to the faculty and staff by the IQAC. They have developed their skills in performing the quality policy efficiently and effectively

6.5.4 Does the institution undertake Academic Audit or other external review of the academic provisions? If 'yes', how are the outcomes used to improve the institutional activities?

Yes,

The institution undertakes academic audit on the basis of the self assessment report prepared by the departments and units of the institution following the standard norms and procedures. Critical areas are identified by these process and correctional and remedial measures are taken to improve the quality activities of the institution.

6.5.5 How are the internal quality assurance mechanisms aligned with the requirements of the relevant external quality assurance agencies/regulatory authorities?

The internal quality assurance mechanisms are aligned with the requirements of the relevant external quality assurance agencies/regulatory authorities, as follows:
The quality policy and parameters developed and deployed by the institution and maintaining and enhancement of these policy by the IQAC are in conformity with the quality standard developed and maintained by the various regulatory bodies like UGC, AICTE and NBA in respect of teaching learning processes, development of infrastructure facilities, students progression and research and consultancy work.

6.5.6 What institutional mechanisms are in place to continuously review the teaching learning process? Give details of its structure, methodologies of operations and outcome?

The following mechanisms are in place to review teaching learning process:

- i) Academic committee reviews and assesses the curriculum transaction and quality of teaching. Due to unavoidable circumstances like general elections, natural calamities measures are taken to cover the syllabus in time during the semester.
- ii) Internal assessment and suggestions are made on lesson-plan, course material, lab experimental manuals, assignments and question paper regularly to continuous improvement of teaching learning process.
- iii) Student feedback on faculty performance in the semester is analyzed and respective faculty are counselled by the HOD and principal, as and when necessary.
- iv) Principal interacts with the student to assess the performance of the faculty.
- v) The institution analysis evaluates teaching learning processes on the basis of the self appraisal report of individual faculty related to teaching, research and other activities.

Followings are the details of its structure, methodologies of operations and outcome:

Structure and methodologies of operations

According to the guidance of the academic committee the HODs prepare plan and strategy in teaching learning process. She /He collects the data and information and prepares an appraisal report of the department. The institution conducts academic audit on the basis of the report. The institution identifies the critical areas.

Outcome of the operations

These measures and mechanisms helps to indentify the areas to be developed and follow up correctional measures are taken to improve the institutional quality activities.

6.5.7 How does the institution communicate its quality assurance policies, mechanisms and outcomes to the various internal and external stakeholders?

The institute communicates its quality assurance policies, mechanisms and outcomes to the various internal and external stakeholders, as follows:

The institution communicates its quality assurance policies, mechanisms and outcomes to the teachers, students, guardians, industry through college publications, meeting and institutional website.

Any other relevant information regarding Governance Leadership and Management which the college would like to include.

CHAPTER VII: INNOVATIONS AND BEST PRACTICES

7.1 Environment Consciousness

7.1.1 Does the Institute conduct a Green Audit of its campus and facilities?

No, the Institute does not conduct the Green Audit. The Institute is situated in such a pollution free environment that, no necessity was felt for Green Audit. This Institute and parent “Basantapur Educational Society” are conscious and committed as regards preservation of greenery in and around the campus and hostels. While construction work was done we took every care so that natural plantation may be preserved as far as practicable. Afterwards we under took afforestation programme around the campus and neighbouring locality. As a result, we have succeeded in retaining and eye-soothing lush green eco-friendly environment. There is no industry in this municipality that can affect and cause threat to the present pollution free and noise free environment. The local population is largely engaged in agricultural activities, such as, jute, paddy and wheat cultivation. The amount of carbon-dioxide the institute and the society emit through its activities is lesser than the oxygen generated through the natural environment and the agricultural activities undertaken in surrounding lands. The Institution undertakes awareness programmes among the concerned people forbidding them to use the biologically un-degradable plastics. Instead they may use the bio-degradable items. The Institution regularly cleans all its toilets, maintains upkeep of the campus and all its buildings, organic and non-organic wastes of all its hostels are properly disposed of.

7.1.2 What the initiatives taken by the Institute to make the campus eco-friendly?

- * **Energy conservation**
- * **Use of renewable energy**
- * **Water harvesting**
- * **Check dam construction**
- * **Efforts for carbon neutrality**
- * **Plantation**
- * **Hazardous waste management**
- * **e-waste management**

Energy conservation

The Institution has initiated steps for reduction of electricity consumption replacing traditional bulbs by CFL lamps, vehicles used by the officials and staffs are duly certified by Pollution Under Control Authority, replacing CRT monitors gradually by LCD/LED monitors etc. The support staff monitors whether unnecessary consumption of power is going on and they switch off. This

Institution has restricted the use of high power consuming electrical gadgets like Coolers, AC machines etc.

Use of renewable energy

The institute has allowed installation of solar power devices on the roof of its administrative building.

Water Harvesting

The Institute has a pond near the campus. The water is harvested there so that it can be used in case of outbreak of fire etc. The NSS team of the institute makes villagers aware about the importance of water harvesting through increasing the number of ponds to harvest rain water, renovation of existing ponds and the impact of water harvesting on agriculture, fishery and financial growth.

Check Dam Construction

The managing society has built the sister organisations in such a way that the water from the western side goes to the “Barabil” through northern side instead of passing through the western side.

Efforts of carbon Neutrality

The institute campaigns awareness of carbon neutrality concept among its faculty members, students and employees.

The car parking place is at a safe distance from the campus. As almost all the students reside in the hostels adjacent to the college campus, they do not use any vehicle emitting carbon.

Plantation

The institute maintains a flower garden adjacent to its main academic buildings. The trees are in abundance in the campus and its surroundings. Moreover, the NSS undertakes afforestation programme every year in the campus and surrounding locality.

Hazardous waste management

The Institution has installed dustbins in all the buildings which are cleaned regularly. Toilets are connected with the Safety Tanks. The plastics of thickness less than 40 micron are not encouraged to use inside the campus. All buildings are in good condition and maintained properly. The hazardous waste is stored, transported to the approved area and recycled the materials for some other productive use in case to case basis.

e-waste management

This institute takes proper care and maintenance of its e-instruments. At present the scrapped e-instruments are very few and are stacked in isolated store room for proper disposal.

7.2 Innovations

7.2.1 Give details of innovations introduced during the last four years which have created a positive impact on the functioning of the college.

Followings are the innovations, the Institute introduced, that have taken a positive shape during the last four years and have created a positive impact on the functioning of the Institution.

A. Technical and Engineering Model Developments and Coding Contest:

The Institute took initiative to develop technical and engineering models. Many exhibitions, the initiative converged as “Tech-Festival and Model Competition” held, with active participation of Institute students.

In the “Tech-Festival and Model Competition” all the departments participate and the focus of the competition was on the following topics:

- Programming & Debugging
- Robotics Pick 'n' Place
- Robo Race

In the Tech-Fests, the students’ urge to incorporate motion in engineering models culminated in Robotics models. The “Programming & Debugging” can equally be named as “Coding Contest” since the core idea of this competition was to judge the students’ flawless coding capability on instantly facing a mathematical or logical problem. The idea behind the “Robotics Pick 'n' Place” competition was centered on translating the ideas of models into suitable hardware designs followed by observation of their satisfactory performances after implementation. The underlying concept “Robo Race” competition is to design appropriate Robotic models capable to face pre-defined challenges created by various types of obstructions.

B. Stop-Gap Class arrangement

If a faculty member wants to take any leave or on duty (due to illness/personal reason/academic work/administrative work/sudden emergency), they should inform the concerned authority at least before 10:30AM on the day(s) of absence. Institution makes interim class arrangement centrally on daily basis before classes start. The load of the absentee teacher is adjusted with the other faculty members associated to that stream of students. Leave of absence of the faculty members without prior intimation is not acceptable and never honoured retroactively. As a result no class goes unattended and consequently teachers get several additional provisional-classes, the syllabi are completed in time and in some cases well

before the end of semester, which enables the faculty members to conduct revision of lessons.

C. College Website

The Institution uploads its relevant information and documents on the college website. It helps the aspirants in the time of admission. It also helps the running students to get study materials and important information.

D. Encouragement for higher studies and Research

Faculty members are motivated to pursue higher studies during their service tenure. Study Leave/Sabbatical Leave/Special Leave is also granted to the faculty members having minimum of two years of teaching experiences. Faculty members are deputed for participation in Workshops/ Seminars/Symposia and Faculty development programmes, and the period of the programme and time spent for to-and-fro as “on duty” are treated on duty. Institution reimburses the “Manuscript Publication Charge” in case of acceptance of manuscript in international peer reviewed journals of good repute. The institution provides full registration fee necessary for the participation in the seminars/symposia/workshops and other training programmes. Moreover, they are eligible for additional increments as per norms on getting the higher degree. Two of the faculty members recently completed their Ph D, one has submitted his thesis and another prepared his thesis for submission by November 2014.

E. Mentorship Programme

Mentorship programmes are running under every department to provide special attention to the students. One faculty member is allotted for each group of 20 students as mentor to provide academic and personal guidance, and to facilitate the overall development of the students.

F. Feedback mechanism

Printed feedback forms are distributed amongst the students of the institution in order to assess the performance of individual teachers and teaching-learning process on various aspects like academic quality, communicative ability, motivational capacity, empathetic interaction and knowledge outside the purview of the syllabus. Corrective and preventive measures are taken wherever necessary.

G. Self-appraisal Report

The parent BES issues a self-assessment appraisal proforma to each faculty once in an academic year. A printed blank form is provided to all faculty members and

the faculty members have to submit the filled in form to their HODs. HODs study the information and give his comments/ suggestions and forward the same to the Principal. The Principal examines those and the remarks of the HODs. Principal also puts his/her comments at the specific place. It is then forwarded to the management along with the remark sheets for further evaluation and reference. The faculty members are given suggestions, if required. It helps the authorities to plan proper support for the policies.

H. Remedial Classes

The faculty members of the Institution conduct Remedial Classes for the weak and average students. This has helped them to brush up their skills and cover up their backlog, if any. They are provided with Special study materials including previous years' solved question papers of the affiliating WBUT.

7.3 Best Practices

The two best practices followed by the Institute are:

1: Lab to Land

2: Development of Semester-wise and Lecture-wise courseware for all streams

Best Practice 1

1. Title of the practice: Lab to Land

Among some good practices this Institute has a regular practice of holding yearly "Education Fair", where the teachers and students of the Institute takes the result of laboratory findings to the community.

2. Goal

The goal of the Education Fair is to create avenues for the students of the participating institutes and audience to be familiar with recent trends in education, especially technical education. At the same time this fair helps students and other participants to show their creativity in respect of model preparation and live demonstration of models based on science and technology. The students and self-help group women show their handicrafts and prepared creative food items . In book stalls students and audience can have chance to be familiar with new publications. The awareness programmes build scientific outlook against superstitions.

3. Context

Dumkal Institute of Engineering & Technology felt the necessity of organising such fair because of its unique location. As it is far from the city and students can't have opportunity of such fair in this locality the Institute decides to hold Education Fair in 2011. Since then it has become a practice to hold the fair every year in winter season. The fair comprises the following aspects:

- a) Live demonstration of Science and Engineering Models,
- b) Awareness programme on the technical courses,
- c) Awareness programme on social issues,
- d) Quiz competition,
- e) Mathematics and English phobia eradication and building solid ground to learn Mathematics and English easily,
- f) Right approach to cursive handwriting,
- g) Programmes on Women Empowerment,
- h) Anti-Ragging Campaign and Measures,
- i) RTI Act,
- j) Lectures on "How to be an Active Citizen",
- k) Book Stalls,
- l) Handicrafts Stalls,
- m) Innovative Food stall
- n) Folk cultural programmes

4. The Practice

The preparation for the Education Fair is a long term process. Engineering & Technology students, under the guidance of the respective departments, design models, charts, electrical, electronics and computer based technological teaching aids etc round the year. The students of Education College go on making handicraft articles, innovative and user-friendly, under the guidance of the subject teachers following their course routine. The self-help group of women and NGOs also take preparation with a view to attending the Education Fair with innovative items for the audience and prospective customers.

The Education Fair is held in the big ground adjacent to Institute. Temporary tents, stalls and dais are erected in the ground keeping an eye to the comfort, necessity and eco-friendly environment. The Fair Committee approves the list of participants from outside the Institute and programme schedule well in advance. The participants are asked to book stalls with advance payment. Then the stalls are distributed through a lottery. The list of invited guests is prepared on common consensus with their consent and posters, handbills are printed for publicity. Big banners are hung in several places around the locality. Moreover, announcement over mike set is done intensely to inform as many people as possible.

The Education Fair starts its decoration before six-seven days. The Institutes decorate the stalls and arrange their models, experimental setups in a nice manner

so that audience may observe without difficulty. The handicraft stalls, book stalls, food stalls are decorated neatly to attract the audience. The temporary auditorium is the centre of attraction of the Education Fair. It is decorated with lighting and sound system.

Everything is prepared and made ready before the day of inauguration of the Education Fair. On the scheduled day and time the Fair is inaugurated with much fanfare lighting candles by eminent guests. Usually the Chairman, BES and all heads of the Institutes remain present. The Education Fair starts with an opening song and inaugural speech by the guest in chief.

The Education Fair remains open from 2.00 pm to 9.00 pm for four days. Entry to the fair is open to all.

5. Evidence of Success

The followings are the evidences of success:

The technical students find the way to their creativeness. This Education Fair paves the way for the future active citizen.

The students from other Institutes and High Schools take keen interest in the scientific model exhibitions and they become interested in Engineering & Technology subjects. They learn the easy way of cursive writing, easy way of learning Mathematics and English.

The handicrafts made by the students of Education College and self-help group of women opened up possibilities of self employment.

The long queues before the food stalls inspire the food makers and it opens up the prospect of future profession of some of them.

The awareness programmes built up scientific concept about snake bite, dog bite etc and about the curse of child marriage.

The debates, extempore and discussions by the students and eminent speakers also contribute a lot to increase the knowledge base and confidence of the students.

The Folk Songs and Folk Cultural Programmes are appreciated by all audience.

6. Problems Encountered and Resources Required

We believe that problems are not insurmountable. With this belief this Institute along with the sister organisations planned to hold Education Fair. There were doubts whether this venture in an agriculture based rural area can be successful. Besides, the Fair Committee faced financial problem for holding the Education Fair in 2011, the very first year. At this juncture, the Basantapur Education Society extended its helping hand and granted an advance amount needed for the purpose and assured all kind of help. Thus the problem was solved. The big playground adjacent to the Institutes and the Education fair Committee with all Faculty, Staff and students jumped for the programme and made it a success. This paved the way for future success and it is continuing this way.

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Best Practice 2

1. Title of the Practice

Development of Semester-wise and Lecture-wise courseware for all streams

2. Goal

- The aim of the practice is to provide our students with a scope of re-learning of the courses they are being taught in the formal class room teaching.
- This practice has helped the students to grasp the subjects taught in the class room situation in a better way. Our experience has revealed that all students of a stream don't belong to same category. As such the capability of grasping the essence of the lessons may not be same. The inadequacy in learning and gap of information is easily bridged by re-learning through this process. The weaker section of students finds this process as a boon for their preparation for examination and building proper knowledge base.

3. The Context

- Teaching experience of more than a decade has made it clear that stereo type mode of classroom teaching is not adequate to prepare the engineering students for end semester examination. With a view to imparting proper teaching to the would be engineers it is necessary that besides dependence on text books and classroom teaching the students need scope of availing study materials as and when they feel it necessary. This has necessitated the introduction of this process in our college.
- Presently many of the students who are admitted to B Tech engineering courses are first generation learners. In spite of being meritorious students they have some limitations and they need additional help from college end for proper and effective teaching learning method.
- So we have adopted a new teaching practice of discharging classroom

based formal teaching programs coupled with undertaking background repair activity.

- While educating such students, the challenging issues are to provide them with simultaneous tutoring or consultancy advices that would help them to overcome their past weaknesses while attending formal class-based lecture hours. Such an endeavour, we feel, is necessary to make them competitive with urban fourth generation students.

4. The Practice

- The practice involves development of semester-wise and lecture-wise courseware for all streams suitable for our students. The faculties keep in mind the specific difficulties, our students usually face on the particular course while attending the formal class lectures, and prepare the presentation in such a way that students would be able to repair their background weaknesses, and in turn would be comfortable while re-learning the concerned lecture.
- The idea behind introducing such a practice is to encourage faculties to continue teaching of certain topic(s) for two/three years so that they can well prepare their class notes in the form of organised word documents which can be transformed later in suitable web-enabled formats and can be put to web server. Those faculty members who would like to bring their works in the form of a printed book would be able to do so.
- The faculty members are developing the initial courseware in word format so that the students right now can use them for re-learn process using computers here or at home and can overcome their weaknesses. The other purpose is to develop the courses in such a format that one can go comfortably and make them web-enabled.
- We intend to put the web-enabled courseware written by our faculty members in our local network so that the students can undertake re-learning studies of a topic of their choice in their convenient time. Once we pass this stage, we would like to put them in a web server of the internet.
- We feel that we would be successful in implementing the e-courses that would meet the requirements of the academically weak students that we have. It is now premature to speak that our practice is unique in the context of Indian higher education, but we believe that this would be of great assistance to weaker section of students at other places and the Basantapur Education Society intends to be at service when such a situation would emerge.

5. Evidence of Success

In comparison with formal method of imparting lessons in class room situation this new method of semester wise and lecture wise courseware has been proved more effective and beneficial to the students. The syllabi are provided by the affiliating university. But execution of the course materials depends on the institute and its faculty members. The students are easily attracted to the classrooms and teachers can modify the lessons as and when they like to do that. So it leads to a continual process of development in respect of knowledge building and skill development for both the teachers and students. This has directly created impact on semester result as well as recruitment process.

7. Problems Encountered and Resources Required

Followings are the Problems Encountered and Resources Required:

Problems Encountered

- (1) The faculty members were under the pressure of time constraint for preparation of the material, its evaluation and re-evaluation.
- (2) It needed some preparation-both mental and physical.

Resources Required

Help computer knowing experts required by the faculty.

7. Contact Details

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