SELF STUDY REPORT

CYCLE - I

Submitted to

National Assessment and Accreditation Council, Bangalore

HERITAGE INSTITUTE OF TECHNOLOGY, KOLKATA

AN AUTONOMOUS INSTITUTION UNDER MAKAUT (formerly WBUT)

(A PRIVATE SELF-FINANCED INSTITUTION)

(AN INITIATIVE OF KALYAN BHARTI TRUST)

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HRIT/0308/5872

Date : 13-07-2016

To
The Director
National Assessment and Accreditation Council
P.O. Box No. 1075, Nagarbhavi
Bangalore – 560072
Karnataka

<div align="center">

Sub: SSR for Accreditation by NAAC
Track Id: WBCOGN26446

</div>

Dear Sir,

Inspired by the noble cause of education and philanthropic zeal, a group of 22 like minded industrialists of Kolkata established in 1990 the Kalyan Bharti Trust (KBT), a public charitable foundation, primarily to promote and provide higher education in the country and in the state of West Bengal, in particular. KBT founded Heritage Institute of Technology, Kolkata (HITK) in 2001 to create a Centre of Excellence in education in Eastern India. The objective is to be a leader in technical education in the country and to be at par with the best institutes in the world. Since inception HITK has attracted the best possible faculty and has created one of the finest infrastructures available in West Bengal. All its eligible B.Tech. programs were accredited by NBA in 2013 (CSE for 5 years and others for 2 years). As recommended by UGC, Maulana Abul Kalam Azad University of Technology, West Bengal has conferred autonomous status to the Institute for a period of 6 years with effect from the Academic Year 2014-2015. It is also recognized U/s 2(f) of the UGC Act. A harmonious integration of the valued traditions and modern outlook is the guiding principle behind the development of the academic environment that constitutes the basic philosophy of the Institute.

The Institute is located in lush green surroundings and offers 3 programmes

(i) B.Tech. programmes in Applied Electronics & Instrumentation Engineering, Biotechnology, Chemical Engineering, Civil Engineering, Computer Science & Engineering, Electronics & Communication Engineering, Electrical Engineering, Mechanical Engineering and Information Technology disciplines

(ii) M.Tech. programmes in Applied Electronics & Instrumentation Engineering, Biotechnology, Computer Science & Engineering, Electronics & Communication

Engineering, VLSI and Information Technology disciplines. The Instituted has recently received approval from AICTE for a new M.Tech. programme in Renewable Energy from the Academic Year 2016-2017

and

(iii) Master in Computer Applications programme.

Heritage Institute of Technology was selected as one of the 25 self-financed institutes initially selected across the country for grant of Technical Education Quality Improvement Programme (TEQIP) Phase – II under Sub-component 1.1 funded by World Bank and monitored by MHRD, Govt. of India and received Rs. 6.00 crore project grant.

As per Careers 360 Outlook group technological colleges ranking in West Bengal April 2015 the Institute is graded as AAA+.

In its silent pursuit to be recognized as a point of reference, a catalyst, a facilitator, an engine for growth and to establish itself as a leader both at national and international levels in technical education, HITK has prepared its Self Study Report as the first step towards National Accreditation and Assessment Council (NAAC) accreditation, which lays emphasis on Institutional developments with reference to quality initiative, quality sustenance and quality enhancement.

We are submitting herewith 5 (five) hard copies, 1 (one) soft copy (CD) of SSR for your kind consideration along with applicable A&A fee (vide DD No. 995691 dated 08-07-2016, on PNB, The Heritage)

Thanking you,

Yours faithfully,

Prof. (Dr.) Pranay Chaudhuri
Principal

Encl: As stated above.

HERITAGE INSTITUTE OF TECHNOLOGY

SELF STUDY REPORT

Submitted to
National Assessment and Accreditation Council, Bangalore

VOLUME - I

INSTITUTIONAL DATA & ANALYSIS

May 2016

TABLE OF CONTENTS

Criterion-VI	Governance, Leadership and Management	
6.1	Institutional Vision and Leadership	
6.2	Strategy Development and Deployment	197-235
6.3	Faculty Empowerment Strategies	
6.4	Financial Management and Resource Mobilization	
6.5	Internal Quality Assurance System (IQAS)	
Criterion-VII	Innovations and Best Practices	236-243
7.1	Environment Consciousness	
7.2	Innovations	
7.3	Best Practices	

PART - A
EXECUTIVE SUMMARY

EXECUTIVE SUMMARY

Inspired by the noble cause of education and philanthropic zeal, a group of 22 like minded industrialists of Kolkata established in 1990 the Kalyan Bharti Trust (KBT), a public charitable foundation, primarily to promote and provide higher education in the country and in the state of West Bengal, in particular. KBT founded Heritage Institute of Technology, Kolkata (HIT-K) in 2001 to create a Centre of Excellence in education in Eastern India. The objective is to be a leader in technical education in the country and to be at par with the best institutes in the world. Since inception HIT-K has attracted the best possible faculty and has created one of the finest infrastructures available in West Bengal. All its eligible B.Tech. programs were accredited by NBA in 2013 (CSE for 5 years and others for 2 years). It has been granted autonomous status by UGC for a period of 6 years with effect from the Academic Year 2014-2015. It is also recognized U/s 2(f) of the UGC Act. A harmonious integration of the valued traditions and modern outlook is the guiding principle behind the development of the academic environment that constitutes the basic philosophy of the Institute.

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As per Careers 360 Outlook group technological colleges ranking in West Bengal April 2015 the Institute is graded as AAA+.

In its silent pursuit to be recognized as a point of reference, a catalyst, a facilitator, an engine for growth and to establish itself as a leader both national and international levels in technical education, HIT-K has prepared its Self Study Report as the first step towards National Accreditation and Assessment Council (NAAC) accreditation, which lays emphasis on Institutional developments with reference to quality initiative, quality sustenance and quality enhancement

Criterion – I : Curricular Aspects

After obtaining the autonomous status in 2014, the curricular structure and syllabus for B.Tech. and M.Tech. programmes for all disciplines have been reframed. All students joining in the first year classes of B.Tech. and M.Tech. programmes of HIT-K in 2014 and afterwards are following the new autonomous college syllabus. Students who joined HIT-K prior to 2014 as well as MCA students currently studying in the MAKAUT syllabus. Although the affiliating University, based on UGC recommendations granted autonomous status to B.Tech. and M.Tech. programmes of the Institute w.e.f. Academic Year 2014-2015, the autonomous status for MCA programme has been granted w.e.f. Academic Year 2016-2017.

The new autonomy syllabus have been framed for B.Tech. programme in 9 (nine) disciplines and M.Tech. programme in 6 (six) disciplines keeping in view the Institute's Mission, Vision and Programme Educational Objectives (PEOs) and Programme Outcomes (POs) in mind. All major stake holders (alumni, parents, faculty, employees) and experts are consulted during the process of framing of the syllabus in a dynamic, democratic and continuous process. Workshops are held with experts from academic institutions and industry and faculty members for preparing the draft syllabus. The same is placed before the Boards of Studies and recommended for approval by the Academic Council.

Different new programmes have been introduced in the last four years in both B.Tech and M.Tech level. To develop the skills of the students to gain success in the present day competitive world, many compulsory skill development courses are introduced in the curriculum like. Verbal Ability, Reasoning & Logic, Data Interpretation, Industry Oriented Mini-project, Advanced English Communication and Soft Skills Lab and Theory classes and Comprehensive Viva-Voce at the end of four years. A compulsory subject "Indian Culture and Heritage" have been introduced at the B.Tech. level. Intensive soft skill and technical / aptitude training is conducted prior to start up of campus season. Feedback is obtained from the students during the semester for every course. There is an online feedback system which is conducted centrally by the HR Department. Feedback forms are filled by the outgoing students of B. Tech and M. Tech as well as alumni to improve the current practices with reference to the curriculum, performance of teachers, teaching-learning process, curriculum, syllabus and infrastructure of the college in a structured format comprising of a standard questionnaire. Feedback is also obtained through personal interaction of the final-year students with Student Counsellors and Mentors. The suggestions / comments from the faculty

members, alumni and industry experts and the feedback of the students are considered while framing the syllabus during the Departmental BOS. The syllabus is proposed to be revised every two to three years.

Criterion – II : Teaching Learning and Evaluation

The Institute strictly adheres to the norms laid down by different central authorities regarding admission of students to different courses. The students newly admitted undergo an orientation schedule which gives them a holistic view of their respective courses and also the institute. Various measures are taken to ensure a student centric learning, like teaching through power point presentations besides conventional teaching methods using chalk and board. Resources from the internet like video lectures efficiently enhance the teaching – learning mechanism. Remedial classes are arranged for strengthening the knowledge and skill of weak students. The institute possesses a well equipped library which boasts of an excellent collection of textbooks and reference books and national & international journals of repute. The departments organize national and international seminars and workshops at regular intervals which increases the exposure of the students.

The Controller of Examinations section ensures that there is transparent examination system. The institute follows a continuous evaluation procedure with two internal tests followed by the end semester examination. Moderation of the question papers for the end semester examinations are done by external experts.

The Human Resource department of the institute looks after the recruitment of faculty members, technical assistants and non-teaching staff . Here again, the institute stick to relevant policies for the same. Recruitments are done by Selection Committees with external experts. A new faculty member has to mandatorily undergo an induction programme to know about the institute and their respective job responsibilities. A centralised faculty feedback system is at place to monitor the performance of faculty members. Faculty members are encouraged through awards. The institute also organizes faculty development programmes at regular intervals for the development of the faculty members.

Criterion – III : Research, Consultancy and Extension

The institution has a research committee which constantly monitors and addresses the issues of research and research projects of the Institute. Researchers and Eminent scientists from different universities are invited to the Institute frequently to interact with faculty members and students on the latest state-of-the art of research.

Provision is made in the Institute budget and also in TEQIP budget for research, organize seminar/conferences, workshops, purchase new software and library books. Besides meeting expenditure for participation of faculty members in National and International Conferences/Seminars in the form of registration fees, travel expenses, research paper

publication is also made from the budget. A major part of the expenditure on the above head has recently been made from TEQIP-II budget.

Financial provisions are also made in the Institute budget for supporting students for UG project work and research projects by providing registration fees, travel allowances per student for their paper publication in journal / conferences. There is a provision in the institution for providing seed money to the faculty for research. Faculties are encouraged to apply to AICTE, DST, UGC, other Government Departments, and other organizations for research funding. The Institute itself have the resources to provide seed money. TEQIP-II project is actively considering grant of seed money to faculty members for innovative projects.

In part of Institute social responsibility our Institute comes forward by involving their faculty and students for Rotaract Club activities.

There are many activities are carried out by the team of "Rotaract Club" that not only developed their capacity of taking responsibility they also can learn the values of life.

An added advantage is that our college has "Memorandum of Understanding" nationally and internationally with other institutions and agencies. The MOUs have contributed in enhancing quality teaching-learning research and development activities of the college

Criterion – IV : Infrastructure and Learning Resources

The Institute is located on 22,742 sq.m. land on a lush green campus with huge physical infrastructure to accommodate all departments properly. The major part of the Institute consists of 126 highly equipped laboratories, 62 class rooms and 26 tutorial rooms along with boys' and girls' hostel separately. The Institute owns a huge library on 1858 sqm. area with total seating capacity 250. The library has a rich collection of 45804 books, 172 print journals, 3500 CD/DVDs, 642 electronic (ebooks, eJournals) and also lecture videos from NPTEL. All the computers at the campus are connected with Gigabit LAN where every student can access a dedicated computer to do their project and laboratory assignments. In the Institute, every faculty is provided with a dedicated computer. Institute owns many softwares and every building at the campus are having WiFi facility. All the facilities are maintained regularly. The total no. of 1627 computers with internet facility, LAN and Wi-Fi facilty. It has a good collection of various softwares.

Criterion V : Student Support and Progression

HIT-K was set up with a view to create a Centre of Excellence in technical education in Eastern India. Since inception, HIT-K has been fortunate to attract the best possible faculty and has created one of the finest infrastructure available in West Bengal.

Academic results has improved considerably in last 5 years. The 'Pass Percentage' touched almost 100% among students in the last year. Most of the students got selected in Campus Interviews but many of them opt for higher studies. Almost 60% of students who appeared for different competitive examinations last year were successful. The institute provides comprehensive coaching classes for different aspects which serve the future needs of various competitive examinations. The support system at HIT-K College offers various avenues for wholesome development of the learner's professional, emotional and physical wellbeing and success. English Communication Labs are provided to improve students' communication skills, presentation skills, and verbal skills etc., as compulsory courses. Infosys "CAMPUS-CONNECT" training is provided to every student by subject experts from Infosys to improve their computer literacy. The college also make certain unique and well intended efforts to motivate each of the students to involve in sports and cultural activities. We have a Career Counseling and Placement cell to help students aspire for their careers. Percentage of students placed have increased during the last 5 years.

The institute signed a MOU with New Jersey Institute of Technology (NJIT) for a student exchange program. Under this program a total of 95 students of 2nd and 3rd year B.Tech. classes have been benefited during the period 2008 to 2015 and the program has shown tremendous success.

Moreover, the institute has a MOU with Ruby General Hospital for emergency medical assistance both for students and staff.

The institute offers tuition fees waiver/ free ships for financially backward meritorious students. Number of students receiving 100% scholarships have increased from 2012 to 2016 and have reached 115 in 2016. Moreover, many UG and PG students received financial assistance from the state government. Financial Assistance is also provided to the students who participate in various competitions/conferences in India and abroad.

There is an elected Students' Council constituted with sub-committees like Cultural, Academic, Magazine, Games and Sports & various Clubs to encourage and organize various co-curricular activities.

The college has a strong alumni association. All the outgoing students automatically become members of the association. The alumni are members of the BOS, and contribute their expertise in designing of course curriculum. They also provide feedback to the college overall development. HIT-K college has a Grievance Redressal Cell (GRC) exclusively for students

(both boys and girls separately). The college has the anti-ragging committee and woman's cell as per Govt. norms.

Every year the college collects feedback from students of outgoing batch and current student on various issues relating to academic and infrastructural development etc. The prospectus cum handbook of the college is updated annually which consists of various details regarding functions of the college and course requirements.

Criterion VI : Governance, Leadership and Management

The organization has a strong governing body that explicitly adheres to the vision and mission of the Institute, thereby fostering continuous growth, development and excellence amongst one and all.

The Institute has an efficient and participative managerial body with defined functional areas and they review and assess the functions and responsibilities by conducting meetings with all its stakeholders at stipulated intervals.

The Institute has various statutory committees where decision for handling several academic and administrative issues is taken by the Board of Governors, Advisory Council, Academic Council, Boards of Studies and other statutory and non-statutory bodies. The meetings of the Board of Governors, Academic Council, Boards of Studies are held regularly.

The College has evolved various effective knowledge development strategies among students for national development, fostering global competencies, enhancing entrepreneurial and professional skills and promoting use of technology with a quest for excellence. The College also promotes value orientations and traditions and prepares dynamic and caring citizens to meet the challenges of global society.

The Institute has a formal policy to ensure and maintain quality through **_Internal Quality Assurance Cell_**. The Institute gives importance to feedback obtained from parents, students and alumni.

The College has an Anti-Ragging Committee and Anti-Ragging Squad as per Supreme Court recommendations along with Grievance Redressal Committee and Internal Complaints Committee for the Sexual Harassment of Women at Workplace.

The Institute fulfills various societal requirements by conducting campaigns and programs through its Rotaract Club, Social Awareness & Community Service Club.

The Institute ensures complete transparency in budgeting, and expenditure. The monthly expenditure and budget utilization reviews and finalization of external audited balance sheet are done regularly.

Thus the Institute continuously enhances its quality to reach its vision and mission.

Criterion VII: Innovations and Best Practices

Heritage Institute of Technology has been extremely attentive towards putting into action innovative and best practices that continue to uplift the performance, credibility, and go a long way in establishing the goodwill of the institute.

From displaying a strong environmental consciousness, evident through ecological activities pursued within campus premises, to adopting measures with a view to enhance the teaching learning environment, the college is making every sincere effort to do justice to its autonomous status acquired in 2014. With the freedom to design the curriculum, the degree awarding departments have made the most of this opportunity by incorporating courses aimed at enhancing not only domain knowledge and skills of the students but also aimed at ensuring their holistic grooming. The Communicative English classes in the 2year and Personality Development classes in the 3year course structure are testimony of our efforts to groom the students in a holistic manner.

The new examination system under autonomy has proved to be highly effective in ensuring holding examinations in time and declaration of results in time. Further to this, TEQIP - envisaged for transformation of the Technical Education System with the World Bank Assistance – has highly benefitted faculty of the institute and motivated them in their pursuance of research activities.

The institute has confidence in taking its responsibility to provide an atmosphere of positivity and growth to all its stakeholders.

PART - B
PROFILE OF THE INSTITUTION

PROFILE OF THE INSTITUTION

1. Name and Address of the Institution:

Name	:	**HERITAGE INSTITUTE OF TECHNOLOGY, KOLKATA**
Address	:	994 Madurdaha, Chowbaga Road, Anandapur, P.O. East Kolkata Township, Pin-700 107
City	:	Kolkata **State** : West Bengal
Website:	:	www.heritageit.edu

2. For communication:

Designation	Name	Telephone with STD Code	Mobile	Fax	Email
Principal	Prof. (Dr.) Pranay Chaudhuri	O: (033) 66270614 / 0622 / 0623 R: (033) 6450-1121	9830014571	(033)2443-0454	principal@heritageit.edu
Vice Principal					
Steering Committee Coordinator	Prof.(Dr.) S.Biswas	O: (033) 66270614 / 0622 / 0623 R: (033) 2426-4725	9231509082	(033)2443-0454	dydirector@heritageit.edu

3. Status of the Autonomous College

i. Government	
ii. Private	✔
iii. Constituent College of University	

4. Name of University
   to which the College is Affiliated   MAULANA ABUL KALAM AZAD UNIVERSITY OF TECHNOLOGY, WEST BENGAL (Formerly known as West Bengal University of Technology)

                                                                [Enclosure B1 & B1A]

5. a. Date of Establishment,
      prior to the grant of 'Autonomy'   (28/06/2001) *AICTE Letter: Enclosure B2*

   b. Date of grant of
      'Autonomy' to the college by UGC: (19/06/2014)
                                                                [i) UGC Letter: Enclosure B3

                                                                ii) MAKAUT Letter Enclosure B4 for Autonomy attached

                                                                iii) MAKAUT Letter Enclosure B4/1 for Autonomy attached

6. Type of Institution

a. By Gender

i.	For men	☐
ii.	For Women	☐
iii.	Co-education	✔

b. By Shift

i.	Regular	✔
ii.	Day	☐
iii.	Evening	☐

c. Source of funding

i.	Government	☐
ii.	Grant-in-aid	☐
iii.	Self-financing	✔
iv.	Any other (Please specify)	☐

7. It is recognized minority Institution?

Yes	☐
No	✔

If you specify the minority status (Religious / linguistic/ any other) and provide documentary evidence.   *N/A*

8. a. Details of UGC recognition:

Under Section	Date, Month & Year (dd-mm-yyyy)	Remarks (if any)
i. 2 (f)	21-01-2010	Order no. F.No 8-349/2006(CPP-I)
ii. 12 (B)	--	

(Enclose the Certificate of recognition / approval): Certificate attached *[Enclosure B5]*

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

Under Section	Day, Month and Year (dd-mm-yyyy)	Validity	Programme / Institution	Remarks
F.No. Eastern/1-2811681310/2016/EOA	25-04-2016	One Year	Institution	Yearly approval / sanction by AICTE, New Delhi
F.No. Eastern/1-2811764541/2016/EOA	05-04-2016			

(Enclose the Certificate of recognition / approval): Certificate attached
[Enclosure B6 & B6A]

9. Has the College been recognized

a. By UGC as a 'College with Potential for Excellence' (CPE)?

Yes ☐   No ☑   N.A.

If yes, date of recognition: ………**N.A.**………….(dd/mm/yyyy)

b. For its contribution / performance by any governmental agency?

Yes ☐   No ☑

If yes, Name of the agency: ………**N.A.**………….and
        Date of recognition: ………**N.A.**……………. (dd/mm/yyyy)

10. Location of the campus and area:

Location*	Urban
Campus area in sq.mts. or acres	5 acres (sq.mts.)
Built up area in sq.mts.	40327 sq.mts

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

11. Does the College have the following facilities on the campus (tick the available facility)? In case the College has an arrangement with other agencies in using such facilities provide information on the facilities covered under the agreement.

- **Auditorium / seminar complex:**   ☑

- **Sports facilities**

    i.   Play ground   ☑
    ii. Swimming pool   **No**
    iii. Gymnasium   ☑

- **Hostel**

    i.   Boys' hostels   ☑
    ii. Girls' hostels   ☑

- **Residential facilities**

    i.   for teaching staff   **No**
    ii. for non teaching staff **No**

- **Canteen:**   **Yes: Canteen area of 550 sqm with seating capacity of 250.**

- **Health centre**

i.	First aid facility	✓
ii.	Inpatient facility	**No**
iii.	Outpatient facility	✓
iv.	Ambulance facility	**No**
v.	Emergency care facility	✓

    Health centre staff:-

i.	Qualified Doctor	**Part- time**
ii.	Qualified Nurse	**No**

- **Other facilities**

i.	Bank	✓
ii.	ATM	✓
iii.	Post Office	**No**
iv.	Book shops	✓

- **Transport facilities**

i.	for students	✓
ii.	for staff	✓

- **Power house:** ✓

- **Waste management facility:** ✓

12. Details of programmes offered by the Institution for the academic year 2015-16.

Sl. No.	Programme Level	Name of the Programme / Course	Duration	Entry Qualification	Medium of Instruction	Sanctioned / Approved Student Intake	No. of students admitted
1.	UG (B.Tech)	Applied Electronics & Communication Engineering	4 years	a) 10+2 & rank in WBJEE / JEE (Main) b) Diploma / B.Sc & JELET	English	a) 60 + 3 (5% TFW*) b) 12 in Second year (Lateral entry)	63
2.		Biotechnology	4 years		English	a) 60 + 3 (5% TFW) b) 12 in Second year (Lateral entry)	60

Sl. No.	Programme Level	Name of the Programme / Course	Duration	Entry Qualification	Medium of Instruction	Sanctioned / Approved Student Intake	No. of students admitted
3.		Civil Engineering	4 years		English	a) 120 + 6 (5% TFW) b) 24 in Second year (Lateral entry)	126
4.		Chemical Engineering	4 years		English	a) 60 + 3 (5% TFW) b) 12 in Second year (Lateral entry)	62
5.		Computer Science & Engineering	4 years		English	a) 180 + 9 (5% TFW) b) 36 in Second year (Lateral entry)	186
6.		Electronics & Communication Engineering	4 years		English	a) 180 + 9 (5% TFW) b) 36 in Second year (Lateral entry)	188
7.		Electrical Engineering	4 years		English	a) 60 + 3 (5% TFW) b) 12 in Second year (Lateral entry)	63
8.		Information Technology	4 years		English	a) 60 + 3 (5% TFW) b) 12 in Second year (Lateral entry)	63
9.		Mechanical Engineering	4 years		English	120 + 6 (5% TFW) b) 24 in Second year (Lateral entry)	126
					Total	945 + (180 Lateral in Second year)	937

*TFW stands for Tution Fee Waiver

Sl. No.	Programme Level	Name of the Programme / Course	Duration	Entry Qualification	Medium of Instruction	Sanctioned / Approved Student Intake	No. of students admitted
1.	PG (M.Tech)	Applied Electronics & Communication Engineering	2 years	B.Tech. / B.E.	English	18	08
2.		Biotechnology	2 years	B.Tech. / B.E.	English	18	08
3.		Computer Science & Engineering	2 years	B.Tech. / B.E.	English	36	16
4.		Electronics & Communication Engineering	2 years	B.Tech. / B.E.	English	18	18
5.		VLSI	2 years	B.Tech. / B.E.	English	18	11
6.		Information Technology	2 years	B.Tech. / B.E.	English	18	02
7	PG (MCA)	Master in Computer Applictions	3 Years	BCA	English	60	60
					Total	186	123

13. Does the Institution offer self-finance Programmes?

Yes ✔   No ☐

If yes, how many?   **03**

14. Whether new programmes have been introduced during the last five years?

Yes   ✔   No

If yes
Number   **2**

Sl.No	Academic Session	Name of the Programme	Intake Capacity
		(B.Tech)	
1.	2012-13	B.Tech in Electrical Engineering	60
2.	2011-12	B.Tech in Mechanical Engineering	60
3.	2011-12	B.Tech in Civil Engineering	60
		(M.Tech)	
4.	2011-12	M.Tech in VLSI	18
5.	2011-12	M.Tech in IT	18

15. List the departments: (Do not list facilities like library, Physical Education as department unless these are teaching departments and offer programmes to students)

Particulars		Numbers	Numbers of Students
Science	Under Graduate	NA	NA
	Post Graduate		
	Research Centre (s)		
Arts	Under Graduate	NA	NA
	Post Graduate		
	Research Centre (s)		
Commerce	Under Graduate	NA	NA
	Post Graduate		
	Research Centre (s)		
Any other	Under Graduate: B.Tech	9	B.Tech: 3713
	H & S Supporting Dept.	4	NA
	Post Graduate : M.Tech	6	M.Tech: 159
	Post Graduate MCA	1	MCA: 162

16. Are there any UG and / or PG programmes offered by the College, which are not covered under Autonomous status of UGC? Give details. ?

Autonomous status was granted to all B.Tech and M.Tech programmes with effect from academic year 2014-15 and for MCA programme with effect from academic year 2016-17.

17. Number of Programmes under (Programme means a degree course like BA,MA, B.Sc, M.Sc, B.Com etc.): **3** (B.Tech, M.Tech and MCA Programmes)

a. annual system

b. semester system   ✔

c. trimester system

18. Number of Programmes with

a. Choice Based Credit System

b. Inter / multidisciplinary approach

c. Any other (Complete semester pattern from I year to final year as per approved course structure, each subject having prescribed credits.   ✔

19. Unit cost of Education

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

a.	including the salary component	**Rs. 77431.80**
b.	excluding the salary component	**Rs. 22595.92**

20. Does the College have a department of Teacher Education offer NCTE recognized degree programmes in Education?

Yes   No | ✔

If yes,

a. How many years of standing does the department have?

…….**N.A.**…..Years

b. NCTE recognition details (if applicable) Notification

No.: …….**N.A.**………………………………

Date: …….**N.A.**……………………(dd/mm/yyyy)

c. Is the department opting for assessment and accreditation separately?

Yes [   ] No [✔]

21. Does the College have a teaching department of Physical Education offering NCTE regonized degree programmes in Physical Education?

Yes [   ] No [✔]

If yes,

a. How many years of standing does the department have?

…….**N.A.**…..Years

b. NCTE recognition details (if applicable) Notification

No.: …….**N.A.**…………………………………

Date: …….**N.A.**…………………………(dd/mm/yyyy)

c. Is the department opting for assessment and accreditation separately?

Yes [**NA**] No [**NA**]

22. Whether the College is offering professional programme?

Yes [✔] No [   ]

If yes, please enclose approval / recognition details issued by the statutory body governing the programme. AICTE & MAKAUT approvals are enclosed

23. Has the College been reviewed by any regulatory authority? If so, furnish a copy of the report and action taken there upon.

a) AICTE : Certificate attached *[Enclosure B6, B6A]*

b) NBA :   Reports attached *[Enclosure B7, B8, B9]*

c) MAULANA ABUL KALAM AZAD UNIVERSITY OF TECHNOLOGY, WEST BENGAL (Formerly known as West Bengal University of Technology)   *[Enclosure B1]*

d) Grant of TEQIP-II Project *[Enclosure B10]*

24. Number of teaching and non-teaching positions in the College

Position	Teaching Faculty						Non-Teaching Staff (Technical Assistants)		Administrative Staff	
	Professor		Associate Professor		Assistant Professor					
	*M	*F	*M	*F	*M	*F	*M	*F	*M	*F
Sanctioned by the UGC / University/ State Government										
recruit	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
yet to recruit	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sanctioned by the Management / Society or other authorized bodies	28		51		166		110		51	
recruited	14	3	16	2	121	86	60	39	38	9
Total	17		18		207		99		47	
yet to recruit	3						11		4	
Total	245						110		51	

* M- Male *F-Female

25. Qualification of the teaching staff

Highest Qualification	Professor		Associate Professor		Assistant Professor		Total
	Male	Female	Male	Female	Male	Female	
Permanent teachers							
D.Sc. / D.Litt.	1						1
Ph.D.	12	3	10	2	28	26	81
M.Phil.							
PG (M.Tech / ME/ M.Sc. MA)	1		6		93	60	160
Temporary teachers							
Ph.D.							
M.Phil.							
PG							

Part-time teachers						
Ph.D.						
M.Phil.						
PG						
Total	14	3	16	2	121	86	242

26. Number of Visiting Faculty / Guest Faculty engaged by the college.

10

27. Students enrolled in the College during the current academic year, with the following details.

Students	UG		PG		Integrated masters		M.Phil.		Ph.D.		Integr-ated Ph.D.		D.Lit./ D.Sc		Certi-fi-cates		Diploma		PG Diploma	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
From the state where the College is located	2075	632	143	156	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
From other states of India	744	184	9	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NRI Students	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Foreign Students	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	2819	816	191	175	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

28. Dropout rate in UG and PG (average for the last two batches)

UG **4.41%**   PG **8.57%**

29. Number of working days during the last academic year.   **241**

30. Number of teaching days during the last academic year   **180**

31. Is the College registered as a study centre for offering distance education programme for any University?

Yes ☐   No ✔

If yes, provide the

a.   Name of the University   NA

b. Is it recognized by the Distance Education Council

Yes ☐   No ✔

c. Indicate the number of programmes offered. │ NA

32. Provide Teacher-student ratio for each of the programme / course offered.

Sl.No.	Programmme/ Courses	Teacher Student Ratio
1.	B.Tech in AEIE	1:15
2.	B.Tech in BT	1:15
3.	B.Tech in ChE	1:15
4.	B.Tech in CE	1:15
5.	B.Tech in CSE	1:15
6.	B.Tech in EE	1:15
7.	B.Tech in ECE	1:15
8.	B.Tech in IT	1:15
9.	B.Tech in ME	1:15
10.	B.Tech 1st Year Common Courses	1:16
11.	M.Tech in AEIE	1:12
12.	M.Tech in BT	1:12
13.	M.Tech in CSE	1:12
14.	M.Tech in ECE	1:12
15.	M.Tech in VLSI	1:12
16.	M.Tech in IT	1:12
17.	MCA	1:12

33. Is the College applying for:

Accreditation: Cycle 1 ✔   Cycle 2 ☐   Cycle 3 ☐   Cycle 4 │

   Re-Assessment :   ☐

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

Cycle 1: …………**N.A.**………………………..(dd/mm/yyyy) Accreditation outcome / results

Cycle 2: ……………**N.A.**…………………..(dd/mm/yyyy) Accreditation outcome / results

Cycle 3: ……………**N.A.**…………………..(dd/mm/yyyy) Accreditation outcome / results

* Kindly enclose copy of accreditation certificate(s) and peer team report(s)

Cycle 1 refers to first accreditation; Cycle 2 and beyond refers to re-accreditation

35. a. Date of establishment of Internal Quality Assurance Cell (IQAC)
   18ᵗʰ February 2016

   b. Date of submission of Annual Quality Assurance Reports (AQARs)

   (i) AQAR for year ……**N.A.**……………….. on ……….(dd/mm/yyyy)

   (ii) AQAR for year ………**N.A.**…………….. on ……….(dd/mm/yyyy)

   (iii) AQAR for year ………**N.A.**…………..on ……….(dd/mm/yyyy)

   (iv) AQAR for year ………**N.A.**…………..on ……….(dd/mm/yyyy)

Any other relevant data, the College would like to include

Visit by Luminaries:

Bharat Ratna Late Prof. (Dr.) A.P.J. Abdul Kalam Former President of India on the occasion of 10ᵗʰ Commemorative Celebration on 05.07.2011

Dr. Ei-Ichi Negishi, 2010 Nobel Laureate in Chemistry addressing members of management, faculty, staff and students on 04.01.2013 at the Heritage Institute of Technology, Kolkata

Dr. Yunan Tshe Lee, 1986 Nobel Laureate in Chemistry addressing the members of management, faculty, staff and students of the Heritage Institute of Technology on 06.01.2013

International Conferences:

➤ International Conference on "Applied Algorithms" (ICAA 2014) held on 13th and 15th January, 2014 at Heritage Institute of Technology, Kolkata. (Proceeding published in Springer Verlag.)

➤ International Conference on "Electronics Communication and Instrumentation" (ICECI 2014) held on 16th and 17th January, 2014. Heritage Institute of Technology, Kolkata. (Proceeding published in IEEE Explorer.)

➢ International Conference on "Advances in Bioprocess Engineering and Technology" (ICABET 2016) held on 20th to 22nd January, 2016 at Heritage Institute of Technology, Kolkata. (Proceeding published in Elsevier)

TEQIP-II Project:

➢ The Institute received funding in TEQIP-II Project under subcomponent 1.1 "Strengthening Institutions to Improve Learning Outcomes and Employability of Graduates" (Total project amount received Rs. 5 Crores). (Further, an additional geant of Rs 1.00 Crore is in the pipe line)

PART - C
CRITERIA WISE EVALUATION REPORT

Criterion – I : **Curricular Aspects**

Criterion – II : **Teaching-Learning and Evaluaiton**

Criterion – III : **Research, Consultancy and Extension**

Criterion – IV : **Infrastructure and Learning Resources**

Criterion – V : **Student Support and Progression**

Criterion – VI : **Governance, Leadership & Management**

Criterion – VII : **Innovations and Best Practies**

CRITERION-I: <u>CURRICULUAR ASPECTS</u>

1.1 Curriculum Design and Development

1.1.1 How are the institutional vision / mission reflected in the academic programmes of the College?

Heritage Institute of Technology was established in the year 2001. From inception this college has taken cognizance of major developments in the global scenario of scientific and technological advancements and has continuously strived under the able leadership of the authority to instill the skills required by the industry and society at large in its students. The curriculum design, development and implementation process at Heritage Institute of Technology has always been done keeping in mind the of the local, regional and national manpower requirements.

The curriculum is designed and implemented according to the vision and mission of Heritage Institute of Technology.

Vision of Heritage Institute of Technology:

To prepare dynamic and caring citizens to meet the challenges of global society while retaining their traditional values.

Mission of the College:

➢ To prepare students with strong foundation in their disciplines and other areas of learning.

➢ To provide an environment for critical and innovative thinking, and to encourage life-long learning.

➢ To develop entrepreneurial and professional skills.

➢ To promote research and developmental activities and interaction with industry.

➢ To inculcate leadership qualities for serving the society.

1.1.2 Describe the mechanism used in the design and development of the curriculum? Give details on the process. (Need Assessment, Feedback, etc)

The academic programmes have been designed and developed after consultations with all the stake holders while keeping the vision and mission statements of the institute as the guiding principle. The process followed by the Institution is:

➢ Curriculum of reputed Institutes like IITs, NITs etc are considered.

➢ Structured feedback from alumni, students, parents, industry, and employers are taken.

➢ Wide range discussions are held within the Department about the inputs received from various agencies. General guidelines from the Academic council on the basis of Institution's Vision and Mission are impetus for the entire process.

➢ Workshops are held in the departments of the faculty members in presence of external experts from reputed universities as well as from the industry.

➢ Based on this Course structures are reviewed and modified every two year, new subjects and Labs are introduced.

➢ The recommendations of the Department then forwarded to BoS.

➢ Meetings of Board of Studies (BoS) of various departments. The BoS members include representatives from University, industry, alumni apart from Department Head and faculty members.

➢ Recommendations of the BoS is approved by the Academic Council.

➢ Meetings of the Academic Council. The Council consists of representatives from reputed universities, industries, research organizations, Principal of Heritage Institute of Technology and Head of all the departments.

1.1.3. How does the College involve industry, research bodies, and civil society in the curriculum design and development process? How did the College benefit through the involvement of the stakeholders?

The Academic Council and the Board of Studies (BoS) are two important academic bodies of the institution. The members of these bodies meet regularly and confer on key issues to steer the curriculum in a suitable direction so that it can meet the global industrial and research needs.

In the Academic Council and Board of Studies discussions are held between all the stake holders on curriculum design and development. This also involves the feedbacks taken from the students, their performance, placement achievements, feedback from faculty etc.

The recommendations made by BoS are then discussed at Academic Council and suitable decisions are made. The decisions taken in the Academic Council regarding curriculum design and development are communicated to the entire staff and students through circulars and displaying notices on the notice board and through institutional

electronic mail. The necessary alterations are included in the syllabus book, course files and institute's website (www.heritageit.edu).

The strategic meetings between Principal with Heads of Departments as well as at department level are conducted to ensure that all the requirements including infrastructure, laboratory equipment, recruitment of qualified faculty members and technical assistants, library resources etc. are available before the commencement of the course work.

Open courseware videos of renowned universities like MIT are made available to the faculty to facilitate them to develop higher standard course material replenished with latest information on the subject. Many leading technical journals from reputed publishers and books are available in the institute library for access by faculty members.

Having a properly designed curriculum helps in preparing a comprehensive almanac in consultation with all the stakeholders. The almanac indicates the dates of commencement of the course work, schedule of mid /end exams, vacation periods, date for declaration of results etc. The academic calendar facilitates the departments to schedule their own activities like organizing seminars, workshops, conferences, faculty development programs.

1.1.4. How are the following aspects ensured through curriculum design and development?

- ➢ Employability
- ➢ Innovation
- ➢ Research

Employability:

- Employability is one of the prioritized concern in designing and developing the curriculum of the institute. The Institution follows a rigorous exercise in designing the curriculum. Continuous alteration and modification of the existing courses, introduction of new courses to meet the requirements of the global market, industry and society are done. The courses are so designed that the students are able to apply their knowledge in real time problems and carry out research in emerging and new areas. The structure of the postgraduate programmes are highly specialized and application based to enhance the employability of the students.

- The curriculum development emphasizes on application orientation, in addition to soft skill development and communication skills. Practical syllabi are designed to include latest techniques and methodologies to increase detailed hands on experience of the students. Each department has one or more research

Laboratories which help industry related projects, M.Tech research projects. We do not have any doctoral programmes as yet.

- The college has set up a Training and Placement cell which maintains professional relations with the representatives of industry. The representatives of various industries are invited to the college campus to interact and their inputs are considered in the curriculum development. Feedbacks from the employers are taken into account during curriculum design so as to overcome any reported shortcoming.

Innovation:

The innovation aspects are ensured through:

- Problem based learning
- Data collection and analysis for theory and laboratory
- Internship at reputed research laboratories
- Multi disciplinary projects for encouraging students
- Majority of the experiments are framed as per syllabus, designed with flexibility in mind
- Industry collaborative projects

Research:

Some of the topics in curriculam relate to areas of active research world wide and many of our M.Tech level research works are based on industrial problems.

1.1.5. How does College ensure that the curriculum developed addresses the needs of the society and have relevance to the regional / national developmental needs?

The Heritage Institute of technology, Kolkata interacts with experts from industry, research bodies and civil societies in the process of curriculum development, revision and implementation. The Institute has introduced several courses like Chemistry, Physics, Mathematics, Environment Engineering, etc. to provide training in specific skills, impart knowledge of ecology and environment, raise employment potential and fulfill global demands resulting in community development.

The teaching of Managerial Economics, Management Science subjects has been initiated with the objective of providing knowledge and training in the understanding and development of national living standards and providing leadership.

A compulsory subject "Indian Culture and Heritage" has been introduced in the 2nd year

B.Tech programme.

The provision of co-curricular activities in a variety of spheres aims at self-development and inculcating values like tolerance, cooperation, courage, helping attitude, sporting spirit, scientific attitude, respect for others etc. and enhancing abilities like communication, vocal delivery, precision etc. The participation in cultural activities is aimed at preservation of heritage and culture, de-stressing of students and breaking the monotony of regular college life. All this is expected to promote intellectual, academic, social, personal and value development among students besides training them in certain skills leading to better employment, understanding their surroundings including ecology, environment, society and world as a whole.

Some of the projects completed by the students illustrated below have direct relevance to societal needs.

Sl. No.	Department	Name of the Project on Regional / National needs	Regional Need/ National Need
1	Chemical Engineering	Preparation of Nitro-p -dichlorobenzene via nitration of p-dichlorobenzene	Regional Need
2		Conversion of Deproteinated Whey to Ethanol	National Need
3		AICTE-MODROBS	National Need
1	CSE	Advanced Bio-metric Authentication Methods (Guide: Poulami Das)	National
2		Secured Telnet over Z-modem based communication (Guide: Arindam Chatterjee)	Regional
3		Missing value estimation in DNA microarray Gene expression data using machine learning and statistical methods (Guide: SujaySaha)	National
4		Computational challenges in Next Generation Genome sequencing data involving machine learning (Guide: SandipSamaddar)	National
5		Fast and efficient algorithms for dilution of expensive reagents/samples in Bio-chip (Guide: NilinaBera)	National
6		Combinatorial Auctionsfor Player Selection in the Indian Premier League(IPL) (Guide: AmitavaBagchi)	Regional
7		Judging quality of English text using Soft Computing (Guide: Dinabandhu Bhandari)	Regional
8		Detection of Hierarchical community structures from social networks (Guide: Partha Basuchowdhuri)	National
9		Top-K query retrieval of combinations with Sum-of-Subsets ranking (Guide: SubhashisMajumder)	National

Sl. No.	Department	Name of the Project on Regional / National needs	Regional Need/ National Need
1	ECE	NOISE CONTENT BASED AUTOMATIC TUNING OF THE FRONT-END MODULE OF THE COGNITIVE RADIO RECEIVER & ENERGY MANAGEMENT WITH REMOTELY ACTIVATED SWITCH APPROACH This M.Tech. project was completed by Shri Avishek Nag in 2014. It was designed with the objective of better utilization of radio frequency spectrum, which has become a precious and scarce resource for wireless communication.	1. National Need
2		DTMF BASED RADIO OPERATED CONTROL OF UNMANNED LEVEL CROSSINGS ON RAIL LINES A group of B.Tech. students (Chiraag Kumar, Nikita Kar and two others) are developing this project.	2. Regional and National Need

1.1.6. To what extent does the College use the guidelines of the regulatory bodies for developing or restructuring the curricula? Has the College been instrumental in leading any curricular reform which has created a national impact?

Heritage Institute of Technology is affiliated to MAKAUT, West Bengal has received autonomous status from the University Grant Commission. The Institution follows all the general guidelines issued by the University for Curriculum structure and syllabus of various subjects. AICTE Guidelines and model course component are also followed. Overall course structure and syllabi therein is in sync with the reputed engineering institutes and Universities of India like IITs and NITs. However, many new subjects specially value added courses, English language skill or soft skill laboratories etc. have been added taking into consideration the demands of the present time. Many interdisciplinary subjects have been introduced to make learning a more wholesome exercise. In restructuring the curriculum, courses like Environmental Engineering etc have been added which have National impact.

1.2 Academic Flexibility

1.2.1 Give details on the following provisions with reference to academic flexibility:

➢ Core/Elective options

➢ Enrichment courses

➢ Courses offered in modular form

➢ Credit transfer and accumulation facility

➢ Lateral and vertical mobility within and across programmes and courses

a) Core/Elective options

Adequate number of core, professional elective and free elective subjects are offered to students.

Enrichment Courses

Training Programmes, Certificate courses and Remedial Classes are organized every year by the Training and Placement Cell as well as the Finishing School every year by involving Industry Experts and Faculty Members from Reputed Institutes. Such programmes are organized for the benefit of the students and the outcome of these programmes is the placement of a significant number of students in the Campus Recruitments. In addition to this, Faculty Development Programmes as well as Pedagogy Trainings are organized for the faculty members. Industrial visits are arranged regularly.

The following are the details of some Enrichment courses organized during 2014-2015 for the benefit of students and faculty members. There are many such programmes under this section which are not listed due to space constraint.

Sl. No.	Programme	Period	Organizing Department	Resource Persons	Partici pants
1	Workshop on UNIX Basic Commands and Shell Programming	28th – 31st October and 7th November, 2014	ECE	Mr. Dipendu Mishra Mr. Kaushik Ghosh Mr. Titas Roychowdhury Ms. Indrani Kundu	108
2	Workshop on Android Applications	24th March – 1st April, 2014	ECE	Mr.Rajmohan De Sarkar, Mr.Charanjib Bhattacharyya Mr.Amitava Chatterjee Mr. Dipanjan Bhattacharya	147
3	Student Development Programme	6th November, 2015	AEIE	Panchanan Pramanik, Professor, Department of Chemistry, IIT Kharagpur Biswajit Ghosh, Professor, Department of Energy Studies, School of Energy Studies	129
4	A Presentation on CIVIL Engineering Structure and it's Design aspects	5th November 2014	CE	Mr. Sumantra Sengupta, M/s STUP Consultant	37
5	BT workshop on Technical Writing and communication skill under finishing School	8th, 9th, 13th, 14th, 15th October, 2015	BT	Ms. Jayati Chatterjee	53

Sl. No.	Programme	Period	Organizing Department	Resource Persons	Partici pants
6	Workshop on Android Application	16, 17, 19, 24, 25, April & 3rd May, 2014	CSE	Mr. Raja Ghosh	101
7	Energy Conservation: Our Challenge is Your Opportunities	19th February	CHE	Mr. Sarabindu Mohanta	53
8	Special Training Session (Communication and presentation skill)	29th -31st October, 2014	Humanities	B. Techguru	114
9	Workshop on Application Development in Android Platform	23rd - 27th September, 2013	IT	Mr. Gaurav Dutta Choudhury, C-DAC, Kolkata	87
10	Workshop on C & Embedded C programming Language	22nd Feb – 3rd March, 2014	IT	Mr. Gaurav Dutta Chowdhury, C-DAC, Kolkata	21
11	Industry Orientation Programme	30th & 31st October & 3rd November 2014	TPO		42

c) Courses offered in modular form

Each department divides the core courses in program specific modules as per AICTE norms. Each programme specific module has a combination of courses including a number of interdisciplinary courses. All the courses under Autonomy are offered are in modular form and included in the curriculam in the correspondings departments which is uploaded in the institute's website. Students of third year and fourth year B.Tech and MCA is currently undergoing the syllabus of theMAKAUT which is available in the University website also in modular form.

d) Credit Transfer and accumulation facility

The State Government has a policy of transfer of a candidate from one College to another College within the University. In such special cases, a candidate is admitted in College in compliance with the guidelines of the University. All credits earned during the tenure of study in the previous Institutes are then transferred to the current Institute to continue the process of accumulation of credit points. A ceiling of 1% exists for such cases.

Regulations of the College and the affiliating University permit the accumulation of credits from I year to IV year for B. Tech and I year to II year for M. Tech programmes to award the degree based on the minimum credits earned by the students and on successful completion of essential courses. Finally the University will award degrees to the qualified students even for Autonomous Colleges.

e) Lateral and Vertical mobility within and across programmes and courses

Lateral mobilities is provided for the B.Tech programme to the top 10% students at the end of the first year.

The college has to follow all admission rules which are prepared by the State Council of Higher Education. Lateral mobility is not permitted as per Government direction. However, Vertical mobility is automatic for any student to enter in to second, third and fourth year based on eligibility of earning minimum credits at the end of each year.

There are core and interdisciplinary electives and the student can select from given set of electives depending upon his/her interest.

1.2.2   Have any courses been developed specially targeting international students? If so how successful have they been? If 'no', explain the impediments.

No

The institute has not applied for foreign students under PIO (Persons of Indian Origin) scheme.

1.2.3 Does the College offer dual degree and twinning programmes? If yes, give details.

No

1.2.4 Does the College offer self-financing programmes? If yes, list them and indicate if policies regarding admission, fee structure, teacher qualification and salary are at par with the aided programmes?

Yes. The College has been established as a self-financing autonomous Private College. As such the following list of courses are self-financing.

I. UG: B. Tech

1. B. Tech in Applied Electronics and Instrumentation Engineering (AEIE)
2. B. Tech in Chemical Engineering (ChE)
3. B. Tech in Computer Science and Engineering (CSE)
4. B. Tech in Electronics and Communication Engineering (ECE)
5. B. Tech in Mechanical Engineering (ME)
6. B. Tech in Civil Engineering (CE)

7. B. Tech in Electrical Engineering (EE)
8. B. Tech in Biotechnology (BT)
9. B. Tech in Information Technology (IT)

II. PG: M. Tech

1. M. Tech in Applied Electronics and Instrumentation Engineering (AEIE)
2. M. Tech in Computer Science and Engineering (CSE)
3. M. Tech in Very Large Scale Integration (VLSI)
4. M. Tech in Electronics and Communication Engineering (ECE-Communications)
5. M. Tech in Biotechnology (BT)
6. M. Tech in Information Technology (IT)

III. PG: MCA Master in Computer Application

The College itself cannot make any admission policy and admissions are made on the basis of the policies laid down by the Government. The fee structure is regulated by the State Government and is subjected to revision after a stipulated period of time. Qualifications of the faculty members are strictly as per the AICTE norms.

1.2.5 Has the College adopted the Choice Based Credit System (CBCS)? If yes, how many programmes are covered under the system?

No. The College has semester system from 1st year to 4th year with credits assigned to each subject. However, there are free and professional electives (both core and interdisciplinary) where the students have the choice to opt a particular elective from a given list in the assigned semester.

1.2.6 What percentage of programmes offered by the College follows:

➢ **Annual system:** 0%
➢ **Semester system:** 100%
➢ **Trimester system:** 0%

1.2.7 What is the policy of the College to promote inter-disciplinary programmes? Name the programmes and what is the outcome?

The College offers a number of interdisciplinary subjects between the B. Tech branches as approved by the BOS. The curricular and syllabi are framed by consulting the academic/R & D/industry experts from different disciplines. The inter deceplinary subjects are marked as "free electives" and as per curricular structurs students of one department can take and earn credit points by studing subjects offered by other departments.

1.3 Curriculum Enrichment

1.3.1 How often is the curriculum of the College reviewed for making it sociallyrelevant and/or job oriented /knowledge intensive and meeting the emerging needs of students and other stakeholders ?

The revision of the syllabus is a continuous process which is carried out by the Board of Studies of the Institution. The university curriculam is normally revied every 5 years however the curriculam under autonomy is proposed to be revised every 2 years. The paper codes and many points /sub-points are incorporated based on GATE syllabus. This is, however, is more applicable for Autonomy syllabus.

∗ *Once in every five years, the curriculum is reviewed by the University.*

1.3.2   How many new programmes have been introduced in UG and PG level during the last four years ? Mention details.

The following are the details of new programmes introduced over the last 4 years.

B.Tech (UG) Programme :

Academic Year	Name of the Programme	Intake
2011-12	Civil Engineering	60
2011-12	Mechanical Engineering	60
2012-13	Electrical Engineering	60

M.Tech (PG) Programme :

Academic Year	Name of the Programme	Intake
2006-07	AEIE	18
2007-08	Bio Tech	18
2006-07	CSE	36 [*]
2009-10	ECE (Communication)	18
2011-12	VLSI	18
2011-12	IT	18

[*]Initially, the number of seats were 18 but from the academic year 2011-12, the number of seats increased to 36

1.3.3 What are the strategies adopted for revision of the existing programmes? What percentage of courses underwent a major syllabus revision?

The feedback essentially comes from the Alumni, Industry and Employers of our Alumni in respect of introducing new courses. These are discussed by the BOS of each Department and are considered with necessary modifications in the Academic Council. Majority of the courses underwent a major syllabus revision during design of curricula and syllabi under Autonomy.

1.3.4 What are the value-added courses offered by the college and how does the college ensure that all students have access to them?

➢ The Training and Placement (TPO) Cell of the College organizes skill development, personality development and communication skils improvement programmes, as value added courses to the students.

➢ Many Campus recruitment training programmes are conducted every year to enhance leadership capabilities of the students to improve their chances of getting employed.

➢ Communication Skills lab courses for all branches are introduced in the curriculum to improve the leadership qualities and interaction capabilities of the students

1.3.5 Has the College introduced any higher order skill development in consonance with the national requirements as outlined by the National Skills Development?

Corporation and other agencies?

To develop the skills of the students to gain success in the present day competitive world, the following compulsory skill development courses are introduced in the curriculum

1. Verbal Ability
2. Reasoning & Logic
3. Data Interpretation
4. Industry Oriented Mini-project
5. Advanced English Communication and Soft Skills Lab and Theory Classes
6. Comprehensive Viva-Voce at the end of four years

All these courses are compulsory and these could be introduced only due to the autonomous status of the College. The following Skill Development programmes are organized by the TPO Cell for the benefit of the students

Programmes organized by the Placement Cell:

Sl No.	Programme	Period	For the benefit of
1.	Personality Development & Grooming by HLS India	15 Aug 2010 to 15 Sep 2010.	All Final Year Students 2011 YOP
2.	Technical Skills programme - Aptitude, Logical Reasoning/Technical and Mock Technical Interviews by Ardent Computech Private Limited.	2 Sept. 2010 to 3 Oct. 2010	All Final Year Students 2011 YOP
3.	Presentation Pre placement Talk by BOCI India Limited	6th Oct 2010	Final Year – Chemical Engg students 2011 YOP

Sl No.	Programme	Period	For the benefit of
4.	Pre Placement Talk by Philips Carbon Black	6th Nov 2010	Final year AEIE and Chemical Engg students 2011 YOP
5.	Pre Placement Talk by Paharpur Cooling Towers	4th Dec 2010	Final Yr Chemical Engg students 2011 YOP
6.	Pre Placement Talk and Presentation by Infosys Technologies Ltd	3rd Jan 2011	All Final Year Students 2011 YOP
7.	Pre Placement Talk and Presentation by Wipro Technologies Ltd	5th Jan 2011	All Final Year Students 2011 YOP
8.	Personality Development and Grooming by HLS India	23rd July to 6th Aug 2011	All Final Year Students 2012 - YOP
9.	Industry Orientation Programme by Ardent Computech Private Limited	20th July to 15th Aug 2011	All Final Year Students 2012 YOP
10.	Aspiring Minds Computer Adaptive test (AMCAT) Quant/Apt/Logical/Verbal/Domain	8th August 2011	All Final Year Students 2012 YOP
11.	Pre Placement Talk by Infosys Technologies Limited	21 Aug 2011	All Final Year Students YOP 2012
12.	Pre Placement Talk by Wipro Technologies Limited	22 Aug 2011	All Final Year Students YOP 2012
13.	Mission 10X – Faculty Development Programme by WIPRO	5 Sep 2011	
14.	Pre Placement Talk by ITC Infotech India Limited	6 Sep 2011	All registered Students YOP 2012
15.	Ardent / Globsyn/ CMC Limited JEE/Oracle/Asp.Net with C#/JAVA/Php and MySQL/VLSI Design and Simulation/Hardware Net working with Project	18 June to 14 July 2012	All final year students YOP 2013
16.	Industrial Readiness Intervention Schedule Aptitude/Logical Reasoning, Technical / Mock Technical Interviews	23 July to 24 Aug 2012	All final year students YOP 2013
17.	Personality development and soft skills covering grooming, communication group discussion and interview techniques by HLS India.	13 Aug to 29 Aug 2012	All final year students YOP 2013
18.	Faculty Development Programme – Cloud Computing, Big Data.r	21 August 2012	
19.	Technical Online test based on C, C++, JAVA etc.	Sept 2012	All final year students YOP 2013
20.	Pre Placement Talk Tata Consultancy Services	9 Sept 2012	All final year students YOP 2013

Sl No.	Programme	Period	For the benefit of
21.	Pre Placement Presentation Capgemini	7 October 2012	All final year students YOP 2013
22.	Pre Placement Presentation	April 2013	All final year students YOP 2013
23.	TCS Seminar on Recent Trends in Information Technology	29 Aug 2013	All final and pre final year students YOP 2013 & 2014
24.	TCS Seminar on Smart Grid	29 Jan 2014	All final and pre final year students YOP 2014 & 2015
25.	TCS Seminar on Smart Grade and Big Data	17 Jan 2014	For final year and pre final year students
26.	On line Aptitude Test by CMC Limited	27 Jan 2014	For unplaced students to improve their employability
27.	CMC , HCL, IBM, Globsyn , Logicvilla Technologies etc – Software Industrial training	June 2014	For 2015 batch students
28.	ERTL, Galaxay Biotech, Human Genome Research Centre, Kiswok, Marathon, Stone India, Mackintosh Burn, Bridge & Roof West Bengal Irrigation Dept, Garden Reach Ship Builders are some of the companies where students have under gone training.	July 2014	For 2015 batch students
29.	TCS Seminar on Digital Technology Trend	27 Aug 2015	All final and pre final year students
30.	B.Tech Guru.com – Online portal for Aptitude learning and assessment. Sponsored by TEQIP. Coordinated by Humanities Dept.	Available to students all year around.	All students of all branches and batches. Certificate for partaking in mock test.

Intensive soft skill and technical / aptitude training is conducted prior to commencement of campus recruitment process every year. Students in the first and second year are given grooming sessions and group discussion training.

The Humanities Department conducts soft skill and communication class room programmes in line with WBUT curriculum.

In addition corporate companies like TCS are invited and they conduct seminars on relevant topics for the benefit of the senior students.

Students are also connected to the Infosys Campus Connect, TCS Campus Commune through which they continue to get guidance and training inputs from these organizations.

We have a Microsoft Innovation Centre which will be utilized by the students for various grades of training and certification programmes of Microsoft.

Summer training for students of pre final year which is in line with WBUT requirement is also specially arranged through reputed organizations on specified technical and skill programmes to improve their employability prospects.

Programmes are also organized under the aegis of TEQIP for employability enhancement of students in technical and soft skill areas, especially tailored to the employer demands from time to time.

Special training to unplaced students to aid their selection by recruiters.

Employability evaluation tests are conducted by organizations like CMC, Aspiring Minds etc. to identify the areas of weakness of each unplaced students and address them suitably while conducting training programmes as above.

Encourage activities pertaining to robotics and participation by HIT-K students in robotics competition, both within and outside the campus. A robotics society – IrobotiX - has taken shape at the Institute.

The Institute has a Photography, Film and Drama Club – Prabhasvana.
There is a Social Awareness & Community Service Club   (SPARSH).

To fulfill societal commitment, Rotaract Club of the Institute (UDAAN) under the parent body Rotary Club of Mahanagar has been established, in addition to an active cell of NSS.

To encourage entrepreneurship activities, an E-Cell (OORJA) has been formed for coordinating with National Entrepreneurship Network (NEN)

1.4 Feedback System

1.4.1 Does the College have a formal mechanism to obtain feedback from students regarding the curriculum and how is it made use of?

Yes, we collect feedback from the students during the semester for every course. There is an online feedback system which is conducted centrally by the HR Department. Feedback forms are filled by the outgoing students of B.Tech and M.Tech as well as alumni to improve the current practices with reference to the curriculum. Feedback is obtained regarding the performance of teachers, teaching-learning process, curriculum, syllabus and infrastructure of the college in a structured format comprising of a standard questionnaire. Feedback is also obtained through personal interaction with the final-year students with Student Counselors and Mentors. The suggestions / comments from the

faculty members, alumni and industry experts while framing the autonomy syllabus during the Departmental BOS. The relevant feedbacks from the students are kept in mind while designing the structure of the syllabus.

1.4.2 Does the College elicit feedback on the curriculum from national and international faculty? If yes, specify a few methods adopted to do the same-(conducting webinar, workshop, online forum discussion etc.). Give details of the impact on such feedback.

Yes, the institution takes informal feedback from National faculty like professors from State Universities CU, JU, BESU, etc, IITs, & R&D organizations. The departments are advised periodically by experts from National Institutes during their visits to the institution for expert lectures, seminars, conferences, etc. The interaction of members of the faculty with the students, parents, alumni, academic peers, recruiters from industries and companies, experts in their fields while attending seminars, conferences, workshops, etc. act as key elements for curriculum revision which in turn are presented by the HODs to the members of the BOS for consideration. Such interaction has resulted in updating the curriculum as per the industry requirement and future scope of research. Before framing the syllabi, each department refers through the curriculum of NITs, IITs and other reputed Institutions available in their respective websites.

1.4.3 Specify the mechanism through which alumni, employers, industry experts and community give feedback on curriculum enrichment and the extent to which it is made use of.

The experts invited for curriculum design workshops are members of the industries, many of which employ our students. Industry experts are inducted in the BoS to ensure that the curriculum is designed based on the requirements of the industry of the present time. The alumni are invited for reunions organized by the institute and their feedback is taken. The outgoing students are also required to give exit feedbacks which are later analyzed and if suitable their suggestions are incorporated in the curriculum too.

1.4.4 What are the quality sustenance and quality enhancement measures undertaken by the institution in ensuring effective development of the curricula?

The BOS & Academic Council has senior faculty from renowned academic institutions, scientist from R&D organization and Experts from Industry in different disciplines who will review and validate the curriculum proposed by the academic Departments. The final exam results are thoroughly analyzed and corrective measures are chalked out so that the Institutional Vision and Mission are achieved. The process of assessment of Programme Outcomes (POs), Programme Education Objectives (PEOs) and Course Outcomes (COs) are very effectively carried out through the assesment tool of Rubrics.

1.5 SWOC Analysis

Strengths

➢ Outcome based curriculum and syllabi, teaching-learning and assessment and evaluation to achieve the programme outcomes and programme educational objectives to maintain national as well as global standards.

➢ Flexiblity in the syllabus and curriculum to accomodate a wide range of educational activities such as industrial visits, internships, cultural programmes, etc

➢ A number of programs organized by the Training and Placement Cell mainly for the final and pre-final year students to enhance their skills in accordance with the national requirements.

Weaknesses

➢ No control on quality of student intake.

➢ Limited entrepreneurship inculcating courses at the UG as well as the PG levels.

➢ Absence of Dual Degree and student exchange programmes

Opportunities

➢ New multidisciplinary programmes in the emerging areas of science and technology both at the UG and PG levels.

➢ Introduction of courses in collaboration with the industries at the UG level.

➢ Utilization of MOUs signed with various national and International Institutes, industries and research organizations.

Challenges

➢ The establishment of infrastructure facilities for the design and implementation oriented courses

➢ Enhancement of Industry-Institute Interaction.

➢ Periodic Revision of the Curriculum under the autonomous curriculum to cope up with the contemporary needs.

➢ Industrial training of teachers.

➢ To introduce curriculam flexibility for both fast and slow learners.

CRITERION II: <u>TEACHING-LEARNING AND EVALUATION</u>

2.1 Student Enrolment and Profile

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

Publicity:

- 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).

- They notify the schedule of a state level examination, viz. "WBJEE", in all leading regional & english dailys and also in their official website: http://www.wbjeeb.nic.in From the merit list of the exam admissions are made.

- The students are admitted to the UG courses through the single window online counselling by WBJEEB.

- Admission to PG programme is done through PGET exams conducted by MAKAUT, West Bengal followed by counseling conducted by MAKAUT

In order to ensure publicity 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, and Pamphlets for circulation.
- ➢ The Institute participates in some Education Fairs/Career Fairs within the state as well as adjoining states like Bihar, Jharkhand, Assam, Tripura etc.

Transparency:

The Institution follows the guidelines for admission process provided by the Higher Education Department, Government of West Bengal and the affiliating university, MAKAUT.

2.1.2 Explain in detail the process of admission put in place for UG, PG and Ph.D.programmes by the College. Explain the criteria for admission (Ex. (i) merit, (ii) meritwith entrance test, (iii) merit, entrance test and interview, (iv) common test conducted by state agencies and national agencies (v) others followed by the College?

The entire process of admission is controlled by the Higher Education Department, Government of West Bengal and the affiliating University MAKAUT, formerly known as WBUT.

Admission Procedure & Other Formalities

➢ **Bachelor of Technology (B. Tech) (4-year duration)**

Eligibility for Admission:

● ---H.S. (10+2) examination with individual pass marks in Physics, Chemistry and Mathematics and minimum 45% marks in the above subjects taken together (40% for SC/ST/PwD/OBC-A/OBC-B candidates) as well as pass in English with a minimum of 30% marks

● --Qualified in Joint Entrance Examination conducted by West Bengal Joint Entrance Examinations Board / Central Board of Secondary Education and recommended by the WBJEE Board

● --80% seats to be filled up by WBJEE candidates, 10% by JEE (Main) candidates and 10% under Management Quota (amongst WBJEE or JEE (Main) rank holders)

● -- Diploma holder students should qualify JELET for getting admission in the 2nd year (lateral entry) with an additional intake of 20% of the approved intake.

● -- Master of Technology (M.Tech.) (2-year duration)

● --Admissions are made from candidates allotted by MAKAUT as per eligibility criteria prescribed by them (which is a relevant AICTE recognized Bachelor's Degree in Engineering / Technology or equivalent).

● --All applicants for admission to M.Tech. Program except those having valid GATE score should sit for a written test (PGET) conducted by MAKAUT.

● -- However, those having GATE score have to fill in the application form and submit the same to MAKAUT along with prescribed fee.

● -- Master of Computer Application (MCA) (3-year duration)

● ---Candidates have to pass Bachelor's Degree in any discipline under (10+2+3) system with Mathematics and having at least 50% marks at the graduation level.

● --- Candidates should qualify the Joint Entrance Examination (JECA). There is a provision of up to 10% of seats to be filled up through Management Quota.

2.1.3 Does the College have a mechanism to review its admission process and student profiles annually? If yes, what is the outcome of such an analysis and how has it contributed to the improvement of the process?

The admission process is totally under the control of WBJEEB and the affiliating University MAKAUT as per the guideline framed by State Government. Institute follows rules, regulations and guidelines laid down by the state government.

However, the Institute has an Admission Cell who reviews the admission process and observes the rank of the students admitted to different branches.

Outcome:

These observations serve as an input to understand the market trend.

Improvement of the process:

Depending upon the outcome, the management of the Institution makes decision about the admission strategy to increase intake and introduction of new courses.

2.1.4 What are the strategies adopted to increase / improve access to students belonging to the following categories

➢ SC/ST

➢ OBC

➢ Women

➢ Different categories of persons with disabilities

➢ Economically weaker sections

➢ Outstanding achievers in sports and extracurricular activities

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:

The institute has a provision for admission of 1 SC and ST candidate in each branch for B.Tech programmes.

Women

The institution does not discriminate on the basis of gender and encourages gender equality.

Differently Abled

The Institution does not have reservations for physically challenged and differently-abled students. However, they are treated affectionately and sympathetically.

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.

In addition Institute offers half freeship to meritorious but economically weaker students (maximum 10% of admitted students) fulfilling the conditions required for students admitted through TFW scheme.

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.

2.1.5 Furnish the number of students admitted in the College in the last four academic years.

B.TECH

Categories	2011-2012		2012-2013		2013-2014		2014-2015		2015-2016	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
SC	1	-	1	-	1	-	1	-		
ST	1	-	1	-	1	-	1	-		
OBC	-	-	-	-	-	-	-	-	-	-
GEN	1510	581	1825	624	2140	720	2580	764	2814	809

M.TECH

Categories	2011-2012		2012-2013		2013-2014		2014-2015		2015-2016	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
SC		-		-		-		-		
ST		-		-		-		-		
OBC	-	-	-	-	-	-	-	-	-	-
GEN	97	86	120	113	111	101	100	93	71	81

MCA

Categories	2011-2012		2012-2013		2013-2014		2014-2015		2015-2016	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
SC		-		-		-		-		
ST		-		-		-		-		
OBC	-	-	-	-	-	-	-	-	-	-
GEN	106	55	106	59	91	71	91	82	76	86

2.1.6 Has the College conducted any analysis of demand ratio for the various programmes offered by the College? If so, indicate significant trends explaining the reasons for increase / decrease.

Programmes	Number of applications	Number of students admitted	Demand Ratio (%)
B.Tech	Admissions are done centrally based on WBJEE, Government makes admission	3344	> 100
M.Tech	Admissions are done through Post Graduate Entrance Test (PGET)	193	76.5

	conducted by MAKAUT followed by a centralised counselling conducted by the same .		
MCA		161	89.4

History of increase/ decrease / introduction of seats of various programmes of study

Year	Description	Reasons for increase/ decrease introduction of seats of various programmes
2011	**Introduction of B.Tech. in** ➢ Mechanical Engg. (ME) ➢ Civil Engg. (CE) *with 60 intake in each* **Introduction of M.Tech. in** ➢ VLSI ➢ Information Technology *with 18 intake in each* **Increase in intake in** ➢ B.Tech. in ECE from 120 to 180 ➢ M.Tech. in CSE from 18 to 36	Market Demand
2012	**Introduction of B.Tech. in** ➢ Electrical Engg. (EE) *with 60 intake* **Increase in intake in** ➢ B.Tech. in CSE from 90 to 120	Market Demand
2013	**Closure of M.Tech. in** ➢ Chemical Engg (ChE)	Arising out of poor demand in view of good job market.
2014	➢ Increase in intake of B.Tech (CE) from 60 to 120 ➢ Increase in intake of B.Tech (ME) from 60 to 120	Market Demand
2015	**Increase in intake in** ➢ B.Tech. in CSE from 120 to 180	Market Demand

2.1.7 Was there an instance of the College discontinuing a programme during last four years? If yes, indicate the reasons.

Yes.

In 2013, the M.Tech programme in Chemical Engineering was discontinued, due to poor demand in view of good job market.

2.2 Catering to Student Diversity

2.2.1 Does the College organize orientation / induction programme for freshers? If yes, give details of the duration of programme, issues covered, experts involved and mechanism for using the feedback in subsequent years.

All newly admitted students to the Heritage Institute of Technology are to attend and participate in the **Freshers' Orientation Programme.** The Programme, called **COMPASS** – *(Campus Orientation Meetings to Prepare for Academic and Social Success),* takes place in the campus.

It is a two-day-long series of activities planned to acquaint the students with the campus community and ease the transition to the new environment.

During the organization programme the students get:

1. Holistic view of the institution specifically the teaching learning process.

2. Head of departments and teachers from different departments address the students. They discuss the curricular structure and examination system.

3. The students get to know about the location of important infrastructural facilities.

    In the first week of the commencement of the programme, the faculty members of every department meet the students to assess the knowledge and skills through assignments and 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, one paper entitled Business English is included in the syllabus of 1st semester class.

2.2.2 Does the College have a mechanism through which the "differential requirements of student population" are analysed after admission and before the commencement of classes? If so, how are the key issues identified and addressed?

No.

2.2.3 Does the College provide bridge /Remedial /add - on courses? If yes, how are they structured into the time table? Give details of the courses offered, department wise/ faculty-wise?

Bridge course:

Yes

➢ Bridge courses are essential for most of the students to acquire additional skills.

➢ Skill Development programmes, Personality Development Programmes, Technical and Aptitude and mock evaluations and online tests, English and communication skills, and domain knowledge are some of the common bridge courses.

➢ These are mostly offered by Training & Placement Cell and faculty of English. External experts are also involved.

Remedial Class

➢ Remedial classes, or special classes, are conducted for slow learners.

➢ As the lateral entry students join late with the regular students, such courses are also conducted for lateral entry students.

Add - on courses:

➢ Intensive soft skill and technical / aptitude training is conducted prior to start of campus recruitment season.

➢ Students in the first and second year are given grooming sessions and group discussion training.

➢ The Humanities Department conducts soft skill and communication class room programmes in line with WBUT curriculum.

➢ In addition corporate companies like TCS are invited and they conduct seminars on relevant topics for the benefit of the senior students.

➢ Students are also connected to the Infosys Campus Connect, TCS Campus Commune through which they continue to get guidance and training inputs from these organizations.

➢ We have a Microsoft Innovation Centre which will be utilized by the students for various grades of training and certification programmers of Microsoft.

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> Programmes are also organized under the agies of TEQUIP for employability enhancement of students in technical and soft skill areas, especially tailored to the employer demands from time to time.

> Special training to unplaced students to aid their selection by recruiters.

> Conducted employability evaluation tests by organizations like CMC, Aspiring Minds etc. to identify the areas of weakness of each individual students and address them suitably while conducting training programmes as above.

> Encourage activities pertaining to robotics and participation by HIT-K students in robotics competition, both within and outside the campus. A robotics society – IrobotiX - has taken shape at the Institute.

> The Institute has a Photography, Film and Drama Club – Prabhasvana

> There is a Social Awareness & Community Service Club (SPARSH).

> To fulfill societal commitment; Rotaract Club of the Institute (UDAAN) under the parent body Rotary Club of Mahanagar has been established, in addition to an active cell of NSS.

> To encourage entrepreneurship activities, an E-Cell (OORJA) has been formed for coordinating with National Entrepreneurship Network (NEN)

2.2.4 Has the College conducted a study on the incremental academic growth of different categories of students; - student from disadvantaged sections of society, economically disadvantaged, physically handicapped and slow learners etc.? If yes, give details on how the study has helped the College to improve the performance of these students.

The institution has a regular scheme of helping economically disadvantaged students in the form of full free studentship to partial monetary help towards admission and semester fees. During continuation of such benefits to the economically disadvantaged students, a continuous vigil is made and a survey is conducted about the sustained academic growth of these students.

For slow learners, unable to keep pace with the rest of the students, evidenced by results of poor class test, practical classes and sessionals are offered additional remedial classes in the specific subjects at the end of each semester. These classes are arranged by respective departments as per specific requirement of the department. These efforts definitely help the slow learners.

Since process of admission to our Institute takes place as per regulation of the affiliating university and we have so far not received any such directives from the University for implementing special supports for disadvantaged sections of society and physically challenged students during admission or in terms of financial benefit during their studies. Accordingly our institution has so far not conducted any study on their incremental academic growth.

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

Marks scored by students in class tests and end semester exam in the first half of the academic year helps in identifying the advanced learners.

➢ 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.

➢ Intensive coaching is also provided to these students before the exam.

➢ The advanced learners are encouraged to take part in seminars/symposia/ workshops to achieve awareness of modern advancement in technology, industry and research.

➢ Teachers play the role of mentors in improving the academic achievement of these students.

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

All academic buildings of the institute have entry ramps and lifts, a few toilets are provided for differently abled students.

During laboratory/practical classes special care is taken for imperting proper training to them.

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 and evaluation blue print, etc.)

➢ The college inculcates in its students the discipline in maintaining the schedule of the class.

➢ The teachers strictly adhere to the academic and evaluation plan as notified.

Academic Plan:

➤ The principal notifies the academic calendar at the beginning of the year.

➤ The academic calendar is same for 2nd to 4th year B.Tech., 2nd year M.Tech. and 2nd and 3rd year MCA (continuing batch) classes. However, it differs to some extent for 1st year B.Tech., M.Tech. and MCA students, as their admissions are regulated by central authorities.

➤ The academic calendar is strictly adhered to by the teachers.

➤ The calendar includes the schedule for commencement of classes, internal tests, practical exams and end semester examinations.

Teaching and Evaluation plan:

➤ At the beginning of each semester, lecture plans are prepared by faculty members and strictly followed through the semester.

➤ The students are informed of the academic plan and examinations through college website. The syllabuses for different courses are posted in the website for their ready reference.

➤ Examination schedules are announced by the controller of examinations.

➤ To maintain transparency, answer scripts of internal tests are shown to the students. The final marks of the internal tests are then sent to the controller of examinations through the head of the department.

2.3.2 Does the College provide course outlines and course schedules prior to the commencement of the academic session? If yes, how is the effectiveness of the process ensured?

➤ The concerned teacher prepares the lecture plan.

➤ On the first day of the class, the teacher explains the course structure and scope of the topics to be covered.

➤ The students are informed on the syllabus through college website.

➤ For laboratory courses the students are given a detailed schedule of the experiments to be performed and outlines of the methods to be followed.

➤ The Head of the department reviews syllabus coverage in Department Academic Committee (DAC) meetings.

➤ The plan ensures that the teacher can reschedule a certain missed class.

➢ Any student who has missed some class, understands what he has to make up.

➢ The teaching plan ensures control on the total syllabus and its timely completion.

2.3.3 What are the courses, which predominantly follow the lecture method? Apart from classroom interactions, what are the other methods of learning experiences provided to students?

➢ In most theoretical courses, the lecture method is followed.

➢ Lectures are explained on green boards. Some classes have OHP(Over Head Projectors) / LCD projectors which forms another convenient medium to impart instructions.

➢ Students are encouraged to participate in seminars / conferences and contribute through poster and paper presentations.

➢ Students are motivated to learn through different open courseware made available by reputed international institutions.

➢ Seminars/Workshops on recent developments in technology & management are frequently organized with speakers from academia and industry

➢ An Industry-Institute-Partnership Cell has been set up for strengthening Industry-Institute Interaction in the teaching-learning process, with financial grant from AICTE.

➢ An Entrepreneurship Development Cell has been set up for encouraging entrepreneurship activities, with financial grant from AICTE.

➢ Industrial visit and inter semester industrial training.

2.3.4 How is 'learning' made more student-centric? Give a list of participatory learning activities adopted by the faculty that contribute to holistic development and improved student learning, besides facilitating life-long learning and knowledge management.

The demand of this generation is to have a holistic approach to education and technical knowledge. This in turn aims at a pattern of learning which is more student centred, so that the students understand the purpose of knowledge and skills they acquire apart from regular examinations. As a result the college encourages in the following ways a more student centred learning:

➢ Regular student seminar presentations

➢ Student associations with reputed organisation in the form of establishment of student chapters like ACM.

➢ Presentation of technical papers in conferences and seminars of repute.

➢ Research projects in collaboration with other institutes.

➢ Students conduct technical fests giving them a hand on experience of practical work.

➢ Internships in industries and training institutes during summer and winter recess.

2.3.5 What is the College policy on inviting experts / people of eminence to provide lectures / seminars for students?

➢ All the departments invite people of eminence for lectures and seminars for students.

➢ The college has a Science club which organizes lectures by eminent scientists.

➢ Many students are also part of student chapters of important technical organizations which in turn enables them to invite experts for seminars.

2.3.6 What are the latest technologies and facilities used by the faculty for effective teaching? Ex: Virtual laboratories, e-learning, open educational resources, mobile education, etc.

➢ Apart from regular board work in classes, faculty members also adopt various innovative methods for effective teaching in the form of power point presentations, video lectures etc.

➢ Faculty members also refer to open course wares made available by reputed international and national institutes.

➢ The library has an online catalogue which helps students to browse books of their interest.

➢ Students can access e-journals and e-books made available by the digital library facility.

➢ Every department is equipped with laptops and projectors to help students gain access to innovative learning.

2.3.7 Is there a provision for the services of counsellors / mentors/ advisors for each class or group of students for academic, personal and psycho-socio guidance? If yes, give details of the process and the number of students who have benefitted.

Yes, there is a mechanism of allotting mentors to different groups of students for academic, personal and psycho-socio guidance. This helps students to overcome inhibitions and face challenges.

The details of the process are entailed below:

➢ Students in each class are divided into groups of 20 and each group is assigned two faculty members as mentors.

➢ The mentors are selected from their respective subject teachers and departmental faculty members.

➢ The mentors prepare a register which consists of the details of the mentees.

➢ The mentors meet the students of their groups at appropriate intervals.

➢ The students also approach their mentors seeking guidance on relevant issues.

A sample copy of the mentor's list is displayed below:

MENTORS' LIST 2015-2016

Stream	Roll Nos.	MENTORS	
		Non-Departmental Teachers involved in teaching 1st yr subjects	**Name of the Departmental Faculty**
		Name	**Name**
1st yr AEIE	001-021	Prof. Anandalok Audhya	Prof. Surajit Bagchi
1st yr AEIE	022-042	Prof. Arindam Das	Prof. Arabinda Kumar Pal
1st yr AEIE	043 to rest	Prof. Reshma Sengupta	Prof. Pradip Saha
1st yr BT	001-021	Prof. Ritu Mukherjee(Mishra)	Prof. Nandan Kumar Jana
1st yr BT	022-042	Prof. Aditi Bhunia Chakraborty	Prof. Nababithi Goswami
1st yr BT	043 to rest	Prof. Sudipta Dey	Prof. Dipanakr Chaudhuri
1st yr ChE	001-021	Prof. Jhumpa Bhadra	Prof. Debajyoti Goswami
1st yr ChE	022-042	Prof. Kasturi Guha Thakurata	Prof. Arindam Mandol
1st yr ChE	043 to rest	Prof. Abhyuday Mallick	Prof. Pramita Sen
1st yr CE	001-021	Prof. Ruma Roychoudhury	Prof. Rudraprasad Roychowdhury
1st yr CE	022-042	Prof. Mousumi Mullick	Prof. Monideepa Paul
1st yr CE	043-063	Prof. Arpita Paul	Prof. Prithwish Saha

Stream	Roll Nos.	MENTORS	
		Non-Departmental Teachers involved in teaching 1st yr subjects	**Name of the Departmental Faculty**
		Name	Name
1st yr CE	064-084	Prof. Rituparna Ghosh	Prof. Ankush Majumdar
1st yr CE	085-105	Prof. Arpita Suchismita	Prof. Kaustav Bakshi
1st yr CE	106 to rest	Prof. Puja Basu Chaudhury	Prof. Sushovan Sarkar
1st yr CSE	001-021	Prof. Kasturi Sanyal	Prof. Sandip Samadder
1st yr CSE	022-042	Prof. Saptaparna Roy	Prof. Somenath Sengupta
1st yr CSE	043-063	Prof. Sudipta Sarkar	Prof. Arpita Talukder
1st yr CSE	064-084	Prof. Swarnali Sharma	Prof. Sabyasachi Banerjee
1st yr CSE	085-105	Prof. Sumana Barman	Prof. Amitava Acharya
1st yr CSE	106-126	Prof. Partha B. Chowdhuri	Prof. Arindam Chatterjee
1st yr CSE	127-147	Prof. Nilanjana G. Basu	Prof. Nilina Bera
1st yr CSE	148-168	Prof. Sujay Saha	Prof. Mahuya B. Kar
1st yr CSE	169 to rest	Prof. Shilpi Saha	Prof. Lopamudra Dey
1st yr EE	001-021	Prof. Shinjinee Das Gupta	Prof. Sanjib Kumar Kundu
1st yr EE	022-042	Prof. Dipankar Chakraborty	Prof. Bivash Mondal
1st yr EE	043 to rest	Prof. Reetwik Bhadra	Prof. Jayita Sarkar
1st yr ECE	001-021	Prof. Sudeepto Sen	Prof. Posiba Mostafa
1st yr ECE	022-042	Prof. Dibyendu Mal	Prof. Tania Das
1st yr ECE	043-063	Prof. Somjit Datta	Prof. Anisha Halder Roy
1st yr ECE	064-084	Prof. Sandip Chatterjee	Prof. Sabyasachi Chatterjee
1st yr ECE	085-105	Prof. Annesha Maity	Prof. Debanjali Sadhu
1st yr ECE	106-126	Prof. Md. Shahnawaz	Prof. Amrita Banerjee
1st yr ECE	127-147	Prof. Susovan Mandal	Prof. Shib Sankar Bhowmick
1st yr ECE	148-168	Prof. Soumya Kanti Raj	Prof. Madhumita Mukherjee
1st yr ECE	169 to rest	Prof. Tapas Chakrabarti	Prof. Abhishek Das
1st yr IT	001-021	Prof. Tanmay Das	Prof. Joydev Hazra
1st yr IT	022-042	Prof. Jyotishman Chatterjee	Prof. Uttam Kumar Dash
1st yr IT	043 to rest	Prof. Rajib Biswas	Prof. Susobhan Baidya
1st yr ME	001-021	Prof. Ajanta Das	Prof. Ritwik Mandal
1st yr ME	022-042	Prof. Nirman Ganguly	Prof. Prasanta Mondal
1st yr ME	043-063	Prof. Moulipriya Sarkar	Prof. Hareram Lohar
1st yr ME	064-084	Prof. Sudipta Roy	Prof. Sumanta Banerjee
1st yr ME	085-105	Prof. Arkadeb Mukhopadhyay	Prof. Amalendu Biswas
1st yr ME	106 to rest	Prof. Raju Das	Prof. Sudip Kumar Halder

2.3.8 Are there any innovative teaching approaches/methods/practices adopted/put to use by the faculty during the last four years? If yes, did they improve the learning? What methods were used to evaluate the impact of such practices? What are the

efforts made by the institution in giving the faculty due recognition for innovation in teaching?

Yes.

➢ Faculty members regularly refer to open course wares available in the form of video lectures.

➢ Resources like NPTEL are frequently used.

➢ Industrial tours are conducted at regular intervals.

➢ Students participate in national and international seminars.

➢ Students gain hands on experience through projects.

The students are evaluated through departmental seminars, where they present their work. They speak on the methodology and their own contribution. These practices have ensured a holistic learning on part of the students besides traditional text book learning. It also ensures that the spirit of teamwork is instilled in them.

The college recognizes the contribution of faculty members through awards of excellence in teaching and research. The faculty members are encouraged to attend faculty development programmes and they share their experience on new skills acquired through seminars organized in the department.

2.3.9 How does the College create a culture of instilling and nurturing creativity and scientific temper among the learners?

The UGC and MAKAUT have sanctioned autonomy to the institute. This has helped in introduction of new programmes which in turn has helped in motivating creativity and scientific temper among students.

The following mechanisms are also at place in the college:

➢ Students are encouraged to write technical papers in conferences and seminars.

➢ Faculty members are involved with students in preparing technical papers in journals and conferences.

➢ Students are encouraged to deliver lectures in departmental seminars.

➢ Students organize technical fests with participation of students from other colleges. The competitive spirit entails creativity.

➢ Students are encouraged to engage in projects collaborating with other institutions.

2.3.10 Does the College consider student projects a mandatory part of the learning programme? If so, for how many programmes is it made mandatory? * Number of projects executed within the College * Names of external institutions associated with the College for student project work

* Role of the faculty in facilitating such projects

Yes in our institute we consider project work is a very important part of students' learning programme, both at the UG and PG level. Therefore student project work covering 2 semesters (7th and 8th semester for UG students and 3rd and 4th semester for PG students) have been made mandatory in the course curriculum.

Individual projects are undertaken by the students of small groups under the guidance of faculty members. The projects undertaken are judicious mix of theoretical as well as practical work. The quality of the project of the work is adjudicated by an internal faculty team along with an external expert. Quite a few output of these project works are published in national and international journals and conferences. A number of practical projects, as working models are preserved in the respective labs.

Quite a large number of these project works are carried out in collaboration with senior faculty members working in similar domain of research in IITs, Universities or in National Institutes. Our students are regularly wining summer trainee fellowship under Indian Academy of Sciences to persue six month research projects work in highly reputed Research Institutes of India

Yes, the project is a part of the curriculum and this mandatory subject is in the final year for all engineering streams.

2.3.11 What efforts are made to facilitate the faculty in learning / handling computer-aided teaching/ learning materials? What are the facilities available in the College for such efforts?

➢ Faculty members regularly refer to learning materials made available by institutions of national and international repute.

➢ Digital library facilities are utilized.

➢ Access to e-journals and e-books complements regular teaching.

➢ Each department has a seminar room equipped with projectors.

➢ Students have access to internet facilities through Wi-Fi and also conventional methods.

➢ Computer labs have required software for applications and instructional facilities.

2.3.12 Does the College have a mechanism for evaluation of teachers by the students / alumni? If yes, how is the evaluation used in achieving qualitative improvement in the teaching-learning process?

Yes

➢ Mechanism of evaluation of teacher is done by obtaining feedback from students

➢ The Institution has an online feedback system to evaluate the teachers by students at the end of each semester.

➢ Feedback is analyzed by Departmental HOD and by the Principal

➢ Necessary counseling of the faculty is done by the HOD of respective departments.

2.3.13 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.

➢ No challenge is generally faced by the college in completing the curriculum.

➢ However, common delays in the admission process delays commencement of classes for new entrants.

➢ In cases where there are delays, the academic calendar is suitably modified without sacrificing instructional days.

➢ Provision of extra classes are made to makeup syllabus shortfall if any.

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

Library supports the teaching –learning process in the following ways

➢ Books are procured as per the requirements of the students and teachers.

➢ Books are catalogued and processed and the bibliographic information are notified to the library members through the alerting services through LAN / e-mail.

➢ Through OPAC (Online Public Access Catalogue), the members are made aware of the present status of the books / journals.

➢ Newly processed books are highlighted through "Display of New Arrivals" at the entrance point of the library.

➢ Content pages of the currently received issues of journals are scanned and notified to all the departments.

➢ All the departmental libraries are connected through LAN / Library Management System software.

➢ Online journals and online databases can be availed in the digital library and also on the DESK of the teachers through IP authentication system. Services from NPTEL and DELNET are also made available to all users.

➢ Central Library (about 20 thousand square feet), with Wi-Fi enabled reading room offers good ambience (fully AC and with modern lighting system) to its members.

➢ New issues of journals are displayed.

➢ All the books and bound volumes and loose issues of journals are available for browsing to the members in the library through Open Access System.

➢ Reprographic (Xerox), scanning services and printout services from online resources are available.

➢ One core book for each paper is issued to the students for the entire semester. The bar-coded automated issue –return system of the books saves the time of the users.

➢ After the admission of new batch of students, they are made acquainted with the library systems and services through Library Orientation Programme, and handed over a booklet entitled "Know Your Library".

➢ User friendly services, definitely with human touch, from both printed and online resources are rendered to the students and teachers for easy accessibility and availability of the resources in order to augment the teaching –learning process.

2.3.15 **How does the institution continuously monitor, evaluate and report on the quality of teaching, teaching methods used, classroom environments and the effect on student performance.**

The college has the following mechanisms to monitor teaching and learning process:

➢ Student feedback system.

➢ Regular department academic committee meetings to discuss on syllabus coverage, problems in classroom management and other aspects involved in teaching

> Self appraisal by teachers.

> **Institute Quality Assurance Cell** has been established to monitor and report on various aspects affecting student performance.

2.4 Teacher Quality

2.4.1 What is the faculty strength of the College? How many positions are filled against the sanctioned strength? How many of them are from outside the state?

Sanctioned strength = 245
Current Strength = 242
Outside State – Nil

HIT-K FACULTY STRENGTH												
Sanctioned Faculty Strength							**Existing Faculty Strength**					
	Department	**Student**	**Faculty**	**Prof**	**ASP**	**AP**	**Faculty Sanctioned(required as per AICTE)**	**Department**	**Prof**	**ASP**	**AP**	**Total faculty strength**
1	AEIE	216	15	2	3	10	15	AEIE	1	3	11	15
2	BT	216	15	2	3	10	15	BT	2	1	13	16
3	ChE	180	12	1	2	9	12	ChE	4	0	8	12
4	CSE	432	30	3	6	21	30	CSE	3	4	25	32
5	ECE	612	42	6	10	26	42	ECE	3	3	35	41
6	IT	216	15	2	3	10	15	IT	1	1	13	15
7	CE	240	16	2	4	10	16	CE	1	1	14	16
8	ME	240	16	2	4	10	16	ME	1	2	13	16
9	EE	180	12	1	2	9	12	EE	1	1	10	12
10	ME	900	10	1	2	7	10	ME	0	0	7	7
11	EE		10	1	2	7	10	EE	0	0	3	3
12	MATHS		10	1	2	7	10	MATHS	0	0	12	12
13	CHEM		10	1	2	7	10	CHEM	0	0	10	10
14	PHY		10	1	2	7	10	PHY	0	1	9	10
15	HUM		10	1	2	7	10	HUM	0	0	13	13
16	MCA	180	12	1	2	9	12	MCA	0	1	11	12
	TOTAL	**3612**	**245**	**28**	**51**	**166**	**245**		**17**	**18**	**207**	**242**

2.4.2 How are the members of the faculty selected?

> Advertisement of the posts is published in leading newspapers / Institute website and, wherever necessary, may request employment exchange / placement consultants for sending name of the persons eligible for the post.

- The requisite qualifications and experience for faculty and staff shall be as per with AICTE norms.

- The Competent Authority will scrutinise the applications and decide the selection process modalities as may be considered fit and proper for different category of vacancies. However, the BOG may appoint experienced and highly competent experts (academicians and executives) as Advisors / Adjunct Professors / Emeritus Professors or in Administration for growth and development of the Institute.

- Selection is done by properly constituted Selection Committee(s) with University's Nominee and external subject experts.

Procedure for Selection - Selection Committee for teaching staff shall comprise the following members:

- Chairman of the BOG or his nominee – Chairman

- Director/Principal of the Institute – Convenor

- Head or DC of the concerned academic department or his nominee not below the rank of a Professor

- A nominee of the MAKAUT not below the rank of Professor in a Technical Institute

- A nominee of AICTE not below the rank of Professor

- For Assoc. Professors / Professors : Three subject experts, not holding any office of profit in the Institute, out of which two must be present

- For Asstt. Professors: Two subject experts, not holding any office of profit in the Institute, out of which one must be present

Procedure for Selection - Selection Committee for all other categories of staff shall comprise the following members:

- Chairman of the BOG or his nominee – Chairman

- Director/Principal of the Institute or his nominee – Convenor

- Two experts of the relevant functional area, not holding any office of profit in the Institute, from Government Departments, Government undertakings, Institutes of Higher learning and Industrial houses.

- A senior teacher of the concerned department in case of technical staff.

> Quorum for any meeting of the Selection Committee shall be 1/3rd of the total number of members of the Committee plus one.

> In case of any difference of opinion amongst the members of Selection Committee on any issue, it shall be referred to the Director/Principal whose decision shall be binding on all concerned.

2.4.3 Furnish details of the faculty

Highest Qualification	Professor		ASP		AP		TOT
	M	**F**	**M**	**F**	**M**	**F**	
Permanent Teachers							
D.SC. / D.Litt.	1	-	-	-	-	-	**1**
Ph.D	12	3	10	2	28	26	**81**
M.Phil.	-	-	-	-	-	-	**0**
PG (M.Tech./M.Sc. / M.A.)	1	-	6	-	93	60	**160**
Total	**14**	**3**	**16**	**2**	**121**	**86**	**242**

2.4.4 What percentage of the teachers have completed UGC-CSIR-NET, UGC-NET, and SLET exams? In that what percentage of teachers are with PG as highest qualification?

Number of teachers ratified in UGC-CSIR-NET, UGC-NET, and SLET are 97 out of 239 = 41% Faculty with UGC-CSIR-NET, UGC-NET, and SLET are with PG as highest qualification = (97-38) =59 = 60%

2.4.5 Does the College encourage diversity in its faculty recruitment? Provide the following departments-wise details.

Yes, the College encourages diversity in its faculty recruitment.

Department wise details:

Department	% of faculty who are product of the same College	% of faculty from other Colleges within the State	% of faculty from other States	% of faculty from abroad
AEIE	2% approx	98%	-	-
BT	1% approx	99%	-	-
ChE	-	100%	-	-
CSE	1% approx	99%	-	-
ECE	2% approx	98%	-	-
IT	-	100%	-	-
CE	-	100%	-	-
ME	-	100%	-	-

Department	% of faculty who are product of the same College	% of faculty from other Colleges within the State	% of faculty from other States	% of faculty from abroad
EE	-	100%	-	-
ME	-	100%	-	-
EE	-	100%	-	-
MATHS	-	100%	-	-
CHEM	-	100%	-	-
PHY	-	100%	-	-
HUM	-	100%	-	-
MCA	-	100%	-	-

2.4.6 Does the College have the required number of qualified and competent teachers to handle all the courses for all departments? If not, how do you cope with the requirements? How many faculty members were appointed during the last four years?

We have qualified and competent teachers. In case of non-availability of competent teachers for some course, we cope up by recruiting competent and qualified teachers as Guest faculty**.** No. of Guest faculties are recruited during last five years as follows:

YEAR	No of Guest Faculty
2011-2012	18
2012-2013	18
2013-2014	17
2014-2015	10
2015-2016	23

2.4.7 How many visiting Professors are on the rolls of the College?

Ten (10)

2.4.8 What policies/systems are in place to recharge teachers? (Eg: providing research grants, study leave, nomination to national/international conferences/Seminars, in service training, organizing national/international conferences etc.)

1. Departments are encouraged to organize national/international seminars for increased exposure.

2. Faculty development programmes are organized at regular intervals.

3. Study leaves are granted to faculty members for pursuing higher studies and also to gain professional exposure.

4. Faculty members are encouraged to visit national and international seminers and conferences.

5. The institute rewards faculty members for excellence in teaching and research.

2.4.9 Give the number of faculty who received awards / recognitions for excellence in teaching at the state, national and international level during the last four years.

The institute has the provision of giving awards for outstanding teaching and outstanding research accomplishments. However, faculties received awards like DST first track, reviewer recognition, fellow of society etc. in the last four years.

2.4.10 Provide the number of faculty who have undergone staff development programmes during the last four years. (Add any other programme if necessary 2011-2015)

Number of faculty

Academic Staff Development Programmes	Number of faculty
Refresher courses	32
HRD programmes	25
Orientation programmes	27
Staff training conducted by the College	86
Staff training conducted by University/other Colleges	47
Summer / winter schools, workshops, etc.	136
Any other (please Specify)	-

2.4.11 What percentage of the faculty have

- been invited as resource persons in Workshops/Seminars/Conferences organized by external professional agencies 6%

- participated in external Workshops/Seminars/Conferences recognized by national/ international professional bodies 52.5%

- presented papers in Workshops / Seminars / Conferences conducted or recognized by professional agencies 40%

- teaching experience in other universities / national institutions and others 10%

- industrial engagement 1%

- international experience in teaching 1.4%

1.12 How often does the College organize academic development programmes for its faculty, leading to enrichment of teaching-learning process?

➢ Curricular Development

➢ Teaching-learning methods

➢ Examination reforms

➢ Content / knowledge management

➢ Any other (please specify)

Curricular Development

It is generally held once in a year. For a new faculty, faculty development programme is held for one day.

Teaching-learning methods

➢ Teacher prepares the lesson plan and accordingly the lectures will be designed after adhering to the syllabus.

➢ Teacher explains the utility and application of the subject taught in the due course of career of the students.

➢ Reference books, text books and their usefulness are covered.

➢ Classroom teaching with chalks and conventional methods are followed on different topics taught.

➢ LCD/OH projectors are used during discussion at the time of seminars and classes, where the students and teachers are discussing on advanced topics.

➢ Exposure to external sources of information like e-journals/journals, open sources are advised by the teachers to the students during the execution of the projects.

➢ College arranges Faculty Development Programmes (FDP) for the teachers in order to ensure the elevation in the teaching-learning process on an average twice a year.

Examination reforms

➢ For Theory Papers –
Internal evaluation marks 30% comprising of

➢ Attendance 5%
➢ Home assignment and Viva Voce 10%

> ➢ Two Class Tests 15%
End Semester Examination – 70% marks

- ➢ For Practical Examinations
  - ➢ Sessional marks – 40%
  - ➢ End Semester Examination – 60%

- ➢ Special Supplementary Examination for 1st and 2nd semester courses are held within 30 days of publication of 2nd semester results. Similarly Special Supplementary Examination for 7th & 8th semester courses will be held within 30 days of publication of 8th semester result.

Content / knowledge management

- ➢ Conducting workshops/seminars

- ➢ Conducting invited lectures

- ➢ Conducting conferences

Any other (please specify)

The college encourages pedagogy training for the faculty members in different institutes to enrich them in the teaching methodology.

2.4.13 **What are the teaching innovations made during the last five years? How are innovations rewarded?**

- ➢ The concepts of outcome based education have been brought in all departments. Faculties are aware of the Programme Educational Objectives (PEOs) and Programme Outcomes (POs) to ensure the course outcome being served.

- ➢ Course files are maintained with the lesson plan and rubrics.

- ➢ Assessments are made by giving weightage to direct and indirect assessment tools.

- ➢ Employer's feedbacks are collected in order to identify the performance of the students in their organization and bridge the gap (if any) by curriculum revision.

- ➢ Curriculum revision has been done after every four years through workshop chaired by HOD followed by BOS.

2.4.14 Does the College have a mechanism to encourage

* Mobility of faculty between institutions for teaching?
* Faculty exchange programmes with national and international bodies?
If yes, how have these schemes helped in enriching quality of the faculty?

➢ Yes. The faculties are permitted to take classes as Guest Faculty in different university.

➢ Yes. It is partly entertained by permitting the faculty members to go to other institutes for curriculum development. Prof. (Dr.) Pramita Sen had gone to IISc Bengaluru for Post Doctoral in the academic year 2015-16.

2.5 Evaluation Process and Reforms

2.5.1 How does the College ensure that all the stakeholders are aware of the evaluation processes that are operative?

➢ Evaluation process is a part of the academic regulations designed by the college and the statutory bodies.

➢ Statutory bodies like BOS followed by academic council followed by BOG to formulate the course curriculum and evaluation procedure and if any sort of modifications required in the academic procedures.

➢ All the students are notified with the course files and printed booklet on curriculum and regulations. Through them parents are also aware of the evaluation system.

2.5.2 What are the major evaluation reforms initiated by the College and to what extent have they been implemented in the College? Cite a few examples which have positively impacted the evaluation management system?

➢ For continuous evaluation of a performance of a student two Class Tests are taken during each semester. 30% of total marks of each paper is given as Internal Assessment and 70% of total marks is assigned to the end semester examination. The internal assessment is done by Class Tests, attendance, home assignments and viva voce.

➢ Free/Professional electives have been included in 3rd and 4th year. Free electives are kept open to all branch students.

➢ If a student misses any of the class tests he/she will be given a chance to sit for the class test again solely after discussing with the concerned teacher(s).

➢ Moderation of end semester question papers is done by an external expert.

➢ Students are given chance to upgrade their grade by appearing in a repeat examination. However, if the grade obtained by a student in the repeat examination is lower than the grade obtained by him/her in the original examination, the grade obtained by the students in the original examination will prevail.

2.5.3 What measures have been taken by the institution for continuous evaluation of students and ensuring their progress and improved performance?

➢ Continuous evaluation strategy is to ensure continuous reading by the students.

➢ Evaluation is made through two class tests, assignments, tutorials and one semester examination at the end of the half academic year.

➢ The calendar is distributed at the beginning of the session.

➢ For students scoring low marks in the 1st class test are assessed and additional inputs are given at the time of remedial classes.

➢ Laboratory classes are assessed with the observations and analysis submitted by the students immediately in the next class after performing the experiments.

➢ Learning from laboratory classes are evaluated with viva and evaluation of the reports on observations and analysis on the experiments performed then and there.

2.5.4 What percentage of marks is earmarked for continuous internal assessment? Indicate the mechanisms strategized to ensure rigour of the internal assessment process?

B. Tech. (UG)

➢ Theoretical: 30% marks from internal assessment and 70% marks from semester examinations

➢ Laboratory: 40% marks from internal assessment and 60% marks from semester examinations

M. Tech. (PG)

➢ Theoretical: 30% marks from internal assessment and 70% marks from semester examinations

➢ Laboratory: 40% marks from internal assessment and 60% marks from semester examinations

MCA

- Theoretical: 30% marks from internal assessment and 70% marks from semester examinations

- Laboratory: 40% marks from internal assessment and 60% marks from semester examinations

- Within an academic year two semester examinations (odd followed by the even semester) are taken along with four class tests (internal assessments).

- Two class tests are taken within the semester and 30% of the average/best of two marks obtained by the students in the class test are added with the rest 70% of the marks obtained in semester examination.

- 40% marks in the semester examination is considered as the pass mark for a student.

- At the 8th semester (UG) a grand viva 100 marks is given

- At the 4th semester (PG) marks carried in thesis is 100 and grand viva 100.

- Seminar presentation is carrying marks 100

- Project marks are given based on the 40% of the internal assessment along with 60% of the external assessment.

2.5.5 Does the College adhere to the declared examination schedules? If not, what measures have been taken to address the delay?

- College adheres to the dates assigned by the University for carrying out the examination. In general for a particular year one regular subject will be held in a day. Under autonomy the examination dates are being assigned by the COE of the college.

- In any case, deferred examination because of sudden reason will be held on dates fixed by the University or the COE (under autonomy) of the college.

2.5.6 What is the average time taken by the College for declaration of examination results? Indicate the mode / media adopted by the College for the publication of examination results e.g., website, SMS, email, etc.

- Under autonomy the average time taken to publish the results is 45 days which is published through website.

> ➢ Under MAKAUT the average time taken to publish the results is according to the university's discretion. However, the maximum time is 45 days through website.

2.5.7 Does the college have an integrated examination platform for the following processes?
* Pre-examination processes – Time table generation, OMR, student list generation, invigilators, squads, attendance sheet, online payment gateway, etc.
* Examination process – Examination material management, logistics.
* Post examination process – attendance capture, OMR based exam result, auto processing, generic result processing and certification.

Yes.

Pre-examination procedures

➢ Time table generation
➢ Student list generation
➢ Online payment gateway for fees collection
➢ Attendance list preparation
➢ Admit card distribution to the students
➢ Room arrangement
➢ Duty assignments for invigilators
➢ Training of invigilators

Examination process

➢ Distribution of the question papers and answer scripts
➢ Recording the attendance
➢ Collection of answer scripts and sorting
➢ Despatching the answer scripts to MAKAUT, West Bengal and COE office (Autonomy)

Post examination process

➢ Distribution of the answer scripts to the concerned faculty members
➢ Evaluation of the answer scripts centrally
➢ Preparation of the tabulation sheet
➢ Execution of a meeting to analyse the result
➢ Meeting of Academic Council to approve results
➢ Publication of the results

2.5.8 Has the College introduced any reforms in its Ph.D. evaluation process?

College doesn't have any Ph.D. programme of its own.

2.5.9 What efforts are made by the College to streamline the operations at the Office of the Controller of Examinations? Mention any significant efforts which have improved process and functioning of the examination division/section?

Controller of Examination office is located in a room of area 240 sq. m. The office is chaired by Controller of Examination followed by the Deputy Controller of Examination along with three numbers of office staffs. The additional staffs required for pre- and post examination procedures during the semester examination are arranged from the internal teaching and non-teaching staffs of the college as per the duty roster given by COE office.

➢ The controller office is located at a safe place in the building with a provision of restricted access.

➢ The students can only meet the COE at a out-office, which is non confidential zone

➢ The confidentiality and safety of the question papers/evaluation copies will be maintained through strong room facilities.

➢ All decisions of the examination work are kept confidential and under the purview of Controller of Examination.

2.5.10 What is the mechanism for redressal of grievances with reference to evaluation?

There is a review mechanism for the evaluated answer scripts which is notified to the students after the publication of the results.

2.6. Student Performance and Learning Outcomes

2.6.1 Does the College have clearly stated learning outcomes for its programmes? If yes, give details on how the students and staff are made aware of these?

➢ We communicate our Programme Outcomes (POs) to the stakeholders especially parents and Alumni through meetings.

➢ Our POs are published in our institution's website and curricula books

➢ Our POs are printed and posted in department office, Staff room, department library and laboratories.

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

Different course delivery methods/modes, e.g. lectures interspersed with discussion, asynchronous mode of interaction, group discussion, project etc., used to deliver the courses and justify the effectiveness of these methods for the attainment of the POs.

➢ **Course Delivery Methods**:

- Lecturing

- Quiz

- Experimental Demonstration

- Organizing seminar

- Group tasks

- Case Study

- Hands on training

- Audio visuals presentation(OHP,PPT)

Effectiveness of course delivery methods for the attainment of the Pos

A typical example is given below:

Programme outcomes:
a) Apply the knowledge of mathematics, science, engineering practices, innovation techniques, entrepreneurship and human factors to provide value-adding solutions to complex engineering challenges.

b) Identify, formulate, analyze and document complex engineering challenges to arrive at viable solutions and substantiated conclusions.

c) Conceive, Design, Implement and Operate solutions for complex engineering challenges that meet specified requirements with appropriate consideration for public health and safety, cultural, societal, environmental and economical considerations.

d) Conduct research and investigation into complex challenges using methods which include experiment design, analysis of data and synthesis of information to provide valid conclusions.

e) Create, select and apply appropriate techniques, resources, and modern engineering and IT tools, including prediction and modelling, to complex engineering activities, with an awareness of the accompanying assumptions and limitations.

f) Apply reasoning informed by contextual knowledge to assess societal, health, safety, legal, economical and cultural issues and the consequent responsibilities relevant to professional engineering practice.

g) Explain the global impact of professional engineering solutions in societal, economical and environmental contexts and demonstrate knowledge of and need for sustainable development.

h) Apply professional and ethical responsibilities of engineering practice.

i)   Effectively communicate complex engineering activities, both orally and in written form, in both technical & non-technical contexts.

j)   Function effectively as an individual and in multidisciplinary settings with capacity to be a leader.

k)   Recognize the importance of lifelong learning and engaging in continuing professional development activities in accordance with technological change.

l)   Effectively manage projects in multidisciplinary environments and apply project management tools and techniques to one's own work, as a member and leader in a team to satisfy stakeholders' requirements.

m) Design and develop circuit for a product and rectify as necessary.

Course delivery Methods	Attainment of POs	Justification
Lecturing	a,b,c,g,k,l	• Information to teach students about a particular subject. • Lectures are used to convey critical information, history, background, theories and equations. • In academia as a quick, cheap and efficient way of introducing large numbers of students to a particular field of study.
Quiz	a,b,f	• The technique was very useful and successful. It ensures the attention of learners into the topic at the beginning of the class. • In addition, preparing the quiz questions and other similar resources for activity, needs lot of preparation time.
Experimental Demonstration	c,e,d,m	• This method of teaching serves as model laboratory instruction • This makes the student familiar with use of apparatus • Teacher's time is properly utilized in watching the students doing experiments

Course delivery Methods	Attainment of POs	Justification
Organizing Seminars	i,g,h	• Exposure to current topics and research trends • Seminars are more effective than classical mode of interaction
Group tasks	f,m,h,j,l	• Students generally enjoy such sessions. Some of the groups/learners came up with very innovative presentations/demonstrations/role plays. • However, lot of time gets consumed in these kinds of activities so that once/twice in a month such a show could be organized.
Case Study	b,c,d,e,k,j	• As students read a case, prepare assignments and actively participate in class discussions they learn how best to approach a problem in a case

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

Our ultimate goal is to utilize assessment instruments to make ongoing improvements to our program. The institute performs outcomes assessment at two levels: Course level and Program level.

➤ **Course Level Assessment**

Our experience shows that assignments and examinations in individual courses provide immediate and valuable feedback to both student and faculty. Two unit tests are taken in all courses. They allow the faculty to identify any potential problems in related course. Each course has detailed objectives, specific course outcomes. Each course has clearly defined objectives, a set of measurable outcomes and contributes to one or more of the Program's Student Learning Outcomes. The faculty member teaching the course is responsible for reporting any major issues

that are revealed from outcomes assessment and initiating any appropriate changes to ensure that the course outcomes are met successfully.

➢ **Program Level Assessment.**

Outcomes assessment from the program level is carried out by using a variety of assessment methods:

1. Student and alumni surveys reflecting on program outcomes :

   Graduating seniors are surveyed at the time of graduation for their perceptions about the program's educational objectives and student learning outcomes and suggestions for improvement.

   Alumni from our programs are surveyed to rank the importance of each of our Program Educational Objectives and Student Learning Outcomes in the context of their current professional position and their level of preparation with respect to the objectives and outcomes.

2. Employer Surveys:

   Faculties visit a company or industry that employs graduates from our program. A set of open ended questions are distributed prior to the visit to provide a foundation for the participants.

3. Visits to industry

   Our placement cell periodically surveys employers and provides salary information and relevant information on upcoming trends and opportunities to the programs.

4. Exit interviews from Graduating Seniors

   Stakeholders' data were systematically collected and analyzed. For the purpose of analysis of the result gathered, respondents were asked of their organization profiles. This is to enable a more detailed analysis to be done on certain specific categories, if necessary

2.6.4 Give Programme-wise details of the pass percentage and completion rate of students.

Given in tables (vide section 5.2.1)

2.7 SWOC Analysis

Strengths

➢ Circulation of the course plan among the students before the commencement of the semester.

- Arrangements of remedial classes help academically poor students.

- Students participate in conferences, lecture sessions and other academic involvements to enrich their knowledge.

- Collection of students' feedback to design course curriculum and enrichment teaching-learning methodology.

- Orientation program for the students and the faculty members facilitates the teaching-learning procedures.

- Recognition of the efforts of faculty members through awards of excellence.

Weaknesses

- Large no of student have dificulty in english communacation.

- Lack of mobility of the faculty members between different institutes and industries.

Opportunities

- Enhancement of more R&D activities through interactions with the other institutes and industries.

- Increase in the faculty exchange programme.

- Enhancement of IT infrastructure to make teaching learning 24 X 7.

Challenges

- Retaining prominent faculty and staff leaving with genuine reasons.

- Involvement of faculties from different states of India and abroad to provide a good exposure to the students.

- Obtaining accurate feedback on the attainment of PEOs based on the diversified employment and research activities of graduates of the Institute.

CRITERION III: <u>RESEARCH, CONSULTANCY AND EXTENSION</u>

3.1 Promotion of Research

3.1.1 Does the College have a research committee to monitor and address the issues of research? If yes, what is its composition? Mention a few recommendations which have been implemented and their impact.

Yes**,** The College has a research committee to monitor and address the issues of Research and Research Projects of the Institute.

The composition of the committee is as follows:

1. Dean (PG and Research) as Chairman

2. Dean (UG) and

3. All HODs as members.

Important recommendations which have been implemented are as follows:

Among the various recommendations submitted by the committee, some may be cited as:

➢ Allocation of a well equipped Laboratory in each department for M.Tech Project work and ongoing research work.

➢ Arrangement of seed funds for young faculty members to promote their research to a stage which could obtain external grants from national level

➢ To modernize the R& D labs of the departments by budgetary support and hence to mould the budgets in that direction.

The result of the recommendations have yielded fruits in the form mentioned:

➢ Research and project grants have been received from the AICTE, DST, UGC, MOBROBs

➢ 45 faculty members are currently pursuing Ph.D.

➢ College is at present enjoying TEQIP Phase II grant and being a better performing Institute with a life time allocation of Rs. 4.0 crore, the Institute received an additional grant of Rs. 2.0 crore in the month of March 2016.

➢ Faculty members can avail TEQIP Phase II fund for paper presentations in National and International Conferences.

➢ The number of publications in journals and paper presentations in Conferences has increased significantly in recent years.

➢ Seminars and workshops are being organized regularly for the benefit of faculty members and students with resource persons from reputed organizations.

3.1.2 What is the policy of the College to promote research culture in the College?

The policy of the college is to encourage faculty members and students in a multipronged manner towards pursue of research.

➢ Conduct of seminars, workshops and short term courses to acquaint the faculty members and students with the latest topics in their field of studies.

➢ Provides financial support to the teachers to attend different national and International, workshops organized by different IITs and other reputed institutions and organizations.

➢ Grants faculty members Lean against post-Doctoral research work in different Universities within the country and abroad.

➢ Working hour has been made less for the faculty members who are persuing their research work in collaboration with other Institutions in order to meet their research supervisors. Register is maintained to enter the record of beneficiaries.

➢ They can also utilize library and laboratory facilities of the college.

➢ There is provision for extra two increments in their salary on receiving the Ph. D. degree.

➢ Well equipped Laboratory for M.Tech Project work and undergoing research work has been allocated to each degree awarding department for the smooth running of the projects.

3.1.3 List details of prioritised research areas and the areas of expertise available with theCollege.

Details of prioritized research areas and areas of expertise available with the college:

Department	Prioritized research area	Faculty	Dept	Laboratory facility
AEIE	Micro Sensors, Instrumentation for BLDC Motor , Electrical Impedance Tomography and its different applications in Instrumentation	Dr. Madhurima Chattopadhyay	AEIE	Research lab

Department	Prioritized research area	Faculty	Dept	Laboratory facility
	Biomedical Signal/ Image Processing , Pattern Recognition, Embedded System	Dr. Santanu Ghorai	AEIE	DSP lab
	Biomedical Instrumentation	Prof. Surajit Bagchi	AEIE	Microprocessor lab
	Fuzzy logic , Process Control and Control Engineering	Prof. Arabinda Kumar Pal	AEIE	MTech LAB
	Artificial Intelligence , Gas Sensor	Dr. Anil Kumar Bag	AEIE	Industrial instrumentation lab
	Analog Signal Processing	Dr. Soumik Das	AEIE	Power electronics lab
CE	Treatment of municipal wastewater and recycling of it for use purpose	Sushovan Sarkar & AnkushMazumder	Civil	Environmental Engg lab
	Improvement of the quality of concrete using different types of waste materials and admixtures	Prof. (Dr.)Tapas Sadhu and Prof. Puja Basu Chaudhuri	Civil Engineering	Concrete Laboratory
	Development of software as per technical demand	Prof.(Dr.) SarmilaSahoo , Prof.KaustavBakshi and Prof. Prithwish Saha	Civil Engineering	CAD Laboratory
	Ground Improvement with Conventional Binders	Prof. Monideepa Paul & Prof.(Dr.)SubhaSankar Chowdhury	Civil Engineering	Soil Mechanics Lab – I & II
	Some deformation characteristics of Kolkata clay			
	Effect of organic constituents on strength and deformation characteristics on different types of soils.			
	Utilization of waste material in pavement construction	Prof. ArpitaSuchismita &Prof.RudraRoychowdhuri	Civil Engineering	Highway & Transportation Engg Lab
BT	Medicinal activity of plants and drugs on biofilm formation	Dr. Soma Banerjee	Biotechnology	Plant Tissue Culture Lab, Bioinformatics lab
	Enzyme and Bioprocess Technology	Dr. Soham Chattopadhyay	Biotechnology	Fermentation lab
	Human Epidemiology	Dr. Riddhi Goswami	Biotechnology	Immunology lab
	Enzyme Technology	Dr.Subhabrata Sengupta	Biotechnology	R & D lab

Department	Prioritized research area	Faculty	Dept	Laboratory facility
	Bioremediation	Dr. Srabanti Basu	Biotechnology	R & D lab
	Molecular Modeling & Drug Design, Biophysics	Dr. Dipankar Chaudhuri	Biotechnology	Bioinformatics lab
	Industrial enzyme and genetic biomarkers	Dr. Nandan Kumar Jana	Biotechnology	Molecular Biology lab
	Biological treatment of industrial wastewater	Dr. Sudipta Dey	Biotechnology	Environmental Engineering lab
	Biochemical engineering & Environmental Biotechnology	Dr. Bhaswati Chakraborty	Biotechnology	Environmental Engineering lab
	Plant Molecular Biology & Soil Microbiology	Dr. Ruplekha Chatterjee	Biotechnology	Microbiology lab
	Plant Molecular Biology & Soil Microbiology	Dr. Kakali Mukherjee	Biotechnology	Microbiology lab
	Bio-reactor design	Dr. Tapan Kumar Ghosh	Biotechnology	Fermentation lab
	Bioremediation	Ms. Sonali Hazra Das	Biotechnology	Environmental Engineering lab
EE	Microprocessor & Microcontroller	Satadal Mal, Saibal Dutta & Bivash Mondal	EE	Microprocessor & Microcontroller lab
	Power System	Sudipta Mitra, Bidisha Roy & Sarmistha Sinha	EE	Power System
	Power Electronics& Drives	Bivash Mondal & Reetwik Bhadra	EE	Power Electronics & Drives
	Electrical Machines	Amitava Hatial & Sanjay Ch. Das	EE	Electrical Machines
IT	Sensor Network, Data Acquisition & Processing	Dr. Tapan Chakraborti	IT	Network lab
	Data management , sensor network	Dr. Ratul Kumar M|azumdar	IT	DBMS and network lab
IT	Evolutionary Algorithms for GCP	Dr. Anindya Jyoti Pal	IT	Research lab
CSE	Algorithmic Design & Analysis, Parallel and Distributed Computing, Self-Stabilization, Grid Computing, Algorithm	Dr. Pranay Chaudhuri	CSE	Research lab

Department	Prioritized research area	Faculty	Dept	Laboratory facility
	Graph Theory			
	Algorithms, VLSI, Social Networking, Data Analysis	Dr. Subhashis Majumder	CSE	Research lab
	Pattern Recognition, Data Mining, Image Processing, Machine Intelligence	Dr. Dinabandhu Bhandari	CSE	Research lab
	Agent Based System, Services Science, Business Process Modeling, Web-based applications	Dr. Aniruddha Dasgupta	CSE	Research lab
	Image Processing, Computer Network	Dr. Poulami Das	CSE	Research lab
	Data Mining, Social Network Analysis, Machine Learning	Partha Basuchowdhuri	CSE	Research lab
ECE	Electronics & Telecomm. Engg.	Dr. P. Banerjee	ECE	Microwave and Antenna Lab
	RadioPhysics & Electronics	Dr. S. Biswas	ECE	Microwave and Antenna Lab
	RadioPhysics & Electronics	Dr. P. K. Ray	ECE	Microwave and Antenna Lab
	Electronics & Telecomm. Engg.	Dr. A. Sen	ECE	VLSI Lab,
	Control System Engg	Dr. M. Kar	ECE	Control lab
	RadioPhysics & Electronics	Dr. S. Pandit	ECE	Control lab
	Electronics & Telecomm. Engg	Dr. S. Dhar	ECE	M.Tech VLSI Lab
	Electronics & Telecomm. Engg	K .Dutta	EC E	M.Tech VLSI Lab
	Electronics & Telecomm. Engg	Dr. A. H. Roy	ECE	
	RadioPhysics & Electronics	Dr. S. Dasgupta	ECE	Advance Communication Lab
	Electronics & Comm. Engg.	Dr. A. Maity	ECE	analog communication lab
ME	Production & Manufacturing Engineering	Dr. Siddhartha Ray	ME	Advance manufacturing lab
	Fluid Mechanics & Hydraulics Engg, & Turbomachinery	Dr. Sukanta Sarkar	ME	IC Engine Lab,
	Operations Research	Dr. Amal Kumar Ray	ME	Dynamics of Machine Lab
	Fluid Mechanics & Hydraulics	Dr. Rajarshi	ME	Fluid

Department	Prioritized research area	Faculty	Dept	Laboratory facility
	Engg.	Sengupta		Mechanics lab
	Heat Power	Dr. Sumanta Banerjee	ME	Heat transfer lab
CHE	Chemical Reaction Engineering, Biotechnology and Bioprocess Engineering	Prof. (Dr.) Pinaki Bhattacharya	CHE	process equipment design and drawing lab
	Separation Process including Advanced Separation, Waste water Treatment	Prof. (Dr.) Sangita Bhattacharya	CHE	Mass transfer Lab
	Heat Transfer, Project Engineering, Transport Phenomena	Prof. Bibhuti Ranjan Saha	CHE	Heat Transfer Lab
	Bio-process Engineering, Environmental Engineering	Prof. (Dr.) Swami Vedajnananda	CHE	Mechanical operation lab,
	Nano – Composite and Polymer based Sensor	Prof. (Dr.) Alok Kumar Sen	CHE	Chemical reaction lab,
	Computational Fluid Dynamics, Flow in microchannels	Prof. (Dr.) Sulagna Chatterjee	CHE	Fluid Mechanics Lab,
	Ultrafiltration, Membrane Separation	Prof. (Dr.) Diptendu Datta	CHE	Chemical reaction lab,
	Petroleum Refinery Engineering & Petrochemicals	Prof. Abhuday Mallick	CHE	energy lab
	Reaction Engineering, Membrane technology	Prof. (Dr.) Pramita Sen	CHE	Chemical reaction lab,
	Biomembrane reactor, nanofiltration, membrane separation	Prof. (Dr.) Dwaipayan Sen	CHE	Chemical reaction lab,
	Nonconventional Energy and Pyrolysis	Prof. (Dr.) Aparna Ray Sarkar	CHE	Energy lab
	Nonconventional Energy and Fuel Cell	Prof. (Dr.) Avijit Ghosh[*]	CHE	Energy lab
MCA	Mobile Wireless Network, Sensor Network, IoT	Dr. Siuli Roy	MCA	ITRA,DISARM project lab

3.1.4 What are the proactive mechanisms adopted by the College to facilitate smooth implementation of research schemes/projects?

Advancing funds for sanctioned projects

➢ The college management advances funds whenever necessary to sanctioned projects to accelerate progress of the project.

➢ Institution provides the overspending of fund upto certain limit.

➢ Institute bears the non funded expenses like travelling allowences etc.

Providing seed money

➢ Seed grant upto Rs. 50,000.00 to be made available from TEQIP (as thought)

➢ Autonomy to the principal investigator/coordinator for utilizing overhead charges

➢ The Principal investigator / coordinator possess full power to steer the research scheme/ project in the required direction. A separate R&D account is maintained for the project and operated as per requirement.

Timely release of grants

➢ Grants sanctioned for research project are released whenever expenses are to be met by the research team, as per the advice of the Principal coordinator.

Timely auditing

➢ Audit of accounts is done at regular intervals.

Submission of utilization certificate to the funding authorities

➢ Utilization certificate is submitted to the funding authorities within the schedule time.

3.1.5 How is interdisciplinary research promoted?

➢ **Collaboration with national/international institutes / industries**

Collaboration is done between departments of the college with different universities and industries of repute, national and international .some of such projects are

- MOU with **Sun Oil Company Pvt. Ltd**. and **Vikram Solar Pvt. Ltd**

- with the **Centre of Excellence for Green Energy and Sensor System (CEGESS)**,

- **Indian Institute of Engineering Science and Technology, Shibpur (IIEST**) to promote collaborative Research and Development activities on efficient solar cells development.

Members of the faculty of Computer Science and Engineering department of the institute has jointly published with faculty members of Electronics and Communication department of Jadavpur university, Kolkata on a current topic of interest namely Mobile computing in the conference EUCNC to be presented in Greece in june 2016.

> **Between/among different departments of the College**

Members of the faculty of Computer Science and Engineering and department of Mathamatics have jointly co-authored multiple papers published in proceedings of International Conferances as well as peer reviewed journals on subject of interest like Computational Number Theory.

3.1.6 Enumerate the efforts of the College in attracting researchers of eminence to visit the campus and interact with teachers and students?

Researchers from industries, IITs, NITs, Universities (National/International) are invited to the campus frequently.They interact with faculty members and students giving suggestion with new direction to the areas in which research is in progress.Eminent scientists and researchers are invited to deliver lectures in current research scenario, enlightening and encourageing the faculty members to carry out research to do Ph. D.

Sl. No.	Name of the expert with designation/Institute	Lecture topic	Number of participants	Date
1.	Dr. Bimal Kumar Basak Ex Executive Director, Wesman Engineering Company Limited	Lecture on Foundry Equipment Usages/Applications		24.04.2013
2.	Dr. Bimal Kumar Basak Ex Executive Director, Wesman Engineering Company Limited	Lecture on Foundry Equipment Usages/Applications		24.04.2014
3.	Dr. Tapan Kumar Ghoshal Dr. Bijan Sarkar Prof. M.K.Tiwari Prof. S. P. Mukherjee Dr. Jaya Sil	Workshop on Research Methodology	32	29.07.2014 to 31.07.2014
4.	Dr. Amitava Mustafi Dr. Tapas Kumar Gupta Mr. Saroj Kumar Sarkar Mr. Sujoy Ghosh Mr. Amarnath Bhadra	Occupational Health & Safety with related Environmental Issues	62	27.03.2014

Sl. No.	Name of the expert with designation/Institute	Lecture topic	Number of participants	Date
5.	Prof. Siddhartha Ray Prof. Samir Saha Prof. Bijan Sarkar Dr. Tapan Kumar Ghoshal Dr. Amal Kumar ray	"Research Methodology" course for PhD students of WBUT.	57	06.03.2014 to 08.05.2014
6.	Prof. Palash B.Paul., Saha Institute of Nuclear Physics, Kolkata	Small particles at high energy	150	Venue; Seminar Room, A-building Time:3:15 p.m. Date; 21-03-2012
7.	Chasing the missing link at CERN: Higgs Boson'	: Prof. Bikash Sinha, Former Director, Saha Institute of Nuclear Physics, Kolkata	700	Venue: HIT-K,Auditorium Time : 3 p.m. Date : 08-08-2012
8.	Mr. Mriganka Majumdar Former Managing Director, DPL	Challenges in Power System		13th March,2014
9.	Prof. M.U. Deshpande Former Professor, IIT Bombay	Power System		13th March,2014
10.	Prof. Sujoy Basu Former Professor, JU	Non-conventional Energy		13th March,2014
11.	Prof. Biplab Paul Principal, Shri Ram Institute of Technology Sciences	Power System Reforms		13th March,2014
12.	Prof. Goutam Bandyopadhyay Professor, IIEST	Power System Protection		14th March, 2014
13.	Prof. Swapan Kumar Goswami Professor, JU	Current Issues in Power System		14th March, 2014
14.	Prof. Sumana Choudhury Associate Professor, CU	Power Electronics and Non-conventional Energy		14th March, 2014
15.	Prof. Prithwiraj Purkait Professor, Haldia Institute of Technology	Condition Monitoring of Electrical Apparatus		14th March, 2014
16.	Dr. Sivaji Chakravorti, JU	Importance of Calibration in Quality Assurance	57	17th April, 2015
17.	Dr. Subir Kr. Sarkar, JU	Design Challenges for Low power VLSI Circuits	57	17th April, 2015

Sl. No.	Name of the expert with designation/Institute	Lecture topic	Number of participants	Date
18.	Kaushik Roy, Purdue University, USA	NANOELECTRONICS: A Bottom-up Approach	65	23rd April, 2014
19.	Kaushik Roy, Purdue University, USA	Approximate Computing for Energy-efficient Error-resilient Multimedia Systems	65	9th April, 2014
20.	Kaushik Roy, Purdue University, USA	Beyond Charge-Based Computing	50	8th April, 2014
21.	Prof. Udayan Ganguly, IIT, Bombay.	Resistance Random Access Memory (RRAM)-Devices (Memory and Selection Device) to Cross Point Array Based Circuits.	60	18th December, 2013
22.	Dr. Amretashis Sengupta, IISC, Bangalore	Next Generation 2D Channel Material based MOSFETs: Overview and Simulation Tools	65	4th September, 2013
23.	Prof. Swapnadip De, MSIT, Kolkata	Short channel effects in MOSFETs	75	11th. March, 2013
24.	Prof. Debaprasad Das, MSIT, Kolkata	Challenges of VLSI Interconnects	80	11th. March, 2013
25.	Prof. A. B. Bhattacharya	MOSFET and Interconnect Inductor Modeling for CMOS VLSI Design"		16th. October, 2012
26.	Prof R. Jindal, University of Lousiana, USA Dr. M. K. Radhakrishnan, NanoRel Corporation	Two day workshop on Sixth Sense Botz"— Vision and Gesture Control Robotics Workshop,		18th-19th. April, 2012.
27.	Prof. K. S. Dasgupta, IIST, T'puram Dr. Rajeswari Chattopadhyay, Director, NTA Mr. Alak Chattapadhyay, Director, NTA, Bangalore	Faculty development program on Reliable Microwave Communication		August 21-22, 2012
28.	Dr. Madhab Desai, IIT Bombay, Dr. Susanta Sen, CU Dr. S. Kolay, ISI Kol Dr. C.K. Sarkar, JU	Faculty development program on VLSI Design and Technology		November 12-13, 2013

Sl. No.	Name of the expert with designation/Institute	Lecture topic	Number of participants	Date
29.	Dr. C. K. Sarkar, JU	IEEE- EDS Student Paper Conference (IESPC-2011)		18th April, 2011
30.	Dr. Alex Mason, UK Dr. Samar K. Saha, Director, Compact Modeling Inc, USA Dr. Sikharesh Majumder, University of Saskatchewan, Canada	International Conference on Electronics Communication and Instrumentation, (ICECI -2014)	128	16-17th Jan,2014
31.	Dr.Nabarun Bhattacharya ,Associate Director, C-DAC, Kolkata. Mr.Arunava Chakraborty, Project Manager, Honeywell. Mr. Sarbajit das, Founder & CEO, Sundew Solutions.	Importance of Applied Electronics & Instrumentation in Industry.	60	Date: 04.08.2015
32.	Prof. Panchanan Pramanik, Ex Prof., Dept. of Chemistry, IIT Kharagpur. Prof. Biswajit Ghosh, Prof. Dept. of Energy Studies, JU.	Sensors for disease detection. Energy Technology for Tomorrow in Conjunction with Instrumentation Engineering.	129	Date: 06.11.2015
33.	Mr. Sarbajit Das, Founder & CEO, Sundew Solutions Pvt. Ltd. Mr. Sugata Bandyopadhyay, Senior General Manager, TATA Consulting Engineers Ltd., Saltlake. Mr. Anupam Baid, Director, Baid Power Services Pvt. Ltd., Lake Town, Kol-89.	Instrumentation in IT Analytical Instrumentation Embedded System	70	Date: 31.07.2014, 01.08.2014
34.	Mr. Anup sarkar, EFY TECH Center, Kolkata.	EMBEDDED & other Electronics System in association with EFY TECH Center, Kolkata. Date: 14.11.2014	60	Date: 14.11.2014

Sl. No.	Name of the expert with designation/Institute	Lecture topic	Number of participants	Date
35.	Organized by the Finishing School of HIT-K under TEQIP-II.	Industry Orientation Program on Advanced C, C++ & Data Structure.		Date:01.04.2015, 08.04.2015, 10.04.2015, 17.04.2015, 22.04.2015, 24.04.2015, 29.04.2015
36.	Mr. Vineet Surana, Berylline Labs Pvt. Ltd.	Trends in DSP based Embedded Systems.	70	Date: 23.04.2015
37.	Organized by The Equity Assurance Committee, TEQIP-II in collaboration with Dept. of AEIE, HIT-K.	C-Programming Language.		Date: 26.09.2013, 28.09.2013, 03.10.2013, 05.10.2013
38.	Chemistry department ,HIT-K Academic Science Culture Promotion Society	Acharya Prafulla Chandra Ray and Chemistry today	119	28.09.2011
39.	Prof. K. K. Ray, Prof., IEE Dept., Jadavpur University Dr. D. K. Bhattacharyya, Principal architect, in international rectifier (USA)	Power electronics device and application	100	04/04/2012
40.	Dr. R. K. Bhandari- Director, VECC and President of Indian Vacuum Society. Prof. G. Pal- Member of VECC and member of Indian Vacuum Society. Pro. D. L. Bandyopadhyay- Ex. Member of VECC and member of Indian Vacuum Society. Prof. A. K. Ghoshal- Ex. Prof., Jadavpur University and member of Indian Vacuum Society.	Vacuum technology	100	24/04/2012
41.	Mr. S K. Chattopadhyay, IOCL	Instrumentation –in industry –Practical-	78	23/02/2013

Sl. No.	Name of the expert with designation/Institute	Lecture topic	Number of participants	Date
	Haldia, and Mr. Shankar Kannan, Chemtrols, Mumbai	Aspects		
42.	Mr. Sugata Bandyopadhyay, Senior General Manager, Tata Consulting Engineers Limited, Salt Lake, Kolkata-700091	Analytical instrumentation	70	01/08/2014
43.	Mr. Anupam Baid, Director, BAID POWER SERVICES Pvt. Ltd., Lake Town, Kolkata-700089	Embedded system	70	01/08/2014
44.	Mr. Anup Sarkar, EFY TECH CENTER, Kolkata	Importance of embedded and other electronics system	60	14/11/2014
45.	Mr. Anup Sarkar, EFY TECH CENTER, Kolkata	Embedded system and PCB design funded by funded by TEQIP-II	23	06/07/2015-10/07/2015
49	Mr. Gourav Dutta Chowdhury, Project Engineer, ICT & S, CDAC,Kolkata	Workshop on "Application Development on Android Platform"		23rd – 27th Sep 2013
50	Mr. Gourav Dutta Chowdhury, Project Engineer, ICT & S, CDAC,Kolkata	Workshop on "C and Embedded C Programming Language"		22nd Feb – 3rd Mar 2014
51	Prof. M Nordin Zakaria, Head,High performance computing centre,UTP Mr. Mohammad Fazli Ahmat Jalaluddin, Technical officer ,UTP Prof. Amitava Chatterjee,Department of Electrical Engg., JU	Faculty Development Program On "Image Processing and Data Mining using Open Source Tools" under Technical Education Quality Improvement Program (TEQIP – II)	40	06-Aug-15 – 12-Aug-15
52	Prof. Chandan Ghosh, NDMA Sri Amit Chaudhuri, Spl. Secretary,Department of	Disaster Risk Reduction	44	4th April, 2014

Sl. No.	Name of the expert with designation/Institute	Lecture topic	Number of participants	Date
	Planning, Govt. of W.B. Dr. Anish Banerjee, Lead.Technical expert, NDMA			
53	Prof. Vincenza Calabro, University of Calabria, Italy, Prof. Stefano Curcio, University of Calabria, Italy Dr. Sudip Chakraborty, Senior Research Scientist, University of Calabria, Italy	Faculty Development programme on Biotechnology and membrane science	8	26th Sept. 2014
54	Mr Dipak Pahari, NRG Tech Services Pvt. Ltd.,Managing Director and Principal Consultant, Gujrat	Industrial Safety & HAZOP analysis	27	17th March, 2015
55	Dr. R.N.Singh, INSA Senior Scientist, Emeritus Scientist (CSIR), National Geophysical Research Institute. Hyderabad Dr. Kalyan Rudra, Chairman, WBPCB Prof. Arunava Majumdar, Emeritus Professor, Jadavpur University, Kolkata Dr. Arun Kanti Biswas, MOEF Expert in WBPCB Dr. Somnath Narayan, SE, WBPCB Dr. Rita Saha, Central Pollution Control Board	Workshop on Solid waste management	59	19th & 20th March, 2015
56	Dr. Asit Kumar Das, Head R&D, Refining, Reliance Industries Ltd, Jamnagar, Gujrat Mr. Ramchandra Dutta,	Distinguished Lectures on Chemical Engineering	59	29th March, 2015

Sl. No.	Name of the expert with designation/Institute	Lecture topic	Number of participants	Date
	Director & Chief Inspector of Factories, Govt. of West Bengal			
57	Sri Joy Chakraborty, Divl. Engineer, WBREDA Sri Amitava Chakraborty, Addtl. Director, PCRA Sri S.Mohanta, Addtl. Director, PCRA Sri Indrajit Bose, Executive Director, Marketing Division, Indian Oil Corporation Ltd Sri Abhijit Nayak, Asst. Director, National Productivity Council, New Delhi	Workshop on "Energy Conservation Techniques in Industries"	39	27th – 28th September 2013

3.1.7. What percentage of faculty has utilized sabbatical leave for research activities? How has the provision contributed to the research quality and culture of the College?

College has no provision for the grant of sabbatical leave for research activities yet.

3.1.8 Provide details of national and international conferences organized by the College highlighting the names of eminent scientists/scholars who participated in these events.

Detail of National/International conferences organized by the college:

Sl. No	Name of the conference	Name of eminent scientist/scholar/Industry person	Duration	Number of Participants
1	National Conference on Mathematical Trends in Physical Sciences	Prof.S.P.Mukherjee,CU Prof.BaniK.Sinha,IIM,Calcutta Dr.Chitralekha Mehera,BU Prof.M.Maity,VU Prof.A.Bagchi,HIT-K DR.B.P.Chatterjee,CMC Prof.B.Sarkar,JU	August 13-14, 2014	100
2	National Seminar on Role of Mathematics in Socio-Economic	Prof. Suman Chakraborty, IIT KGP Prof. G. P. Raja Sekhar, IIT	March 28-29, 2015	60

	Research	KGP Prof. S. De, IIT KGP Prof. Shashi Kant Mishra, BHU Prof. Archan S. Majumdar, SNBNCBS, Kolkata Prof. Anjan Ananda Sen, Jamia Milia Islamia Prof. Narayan Banerjee, IISER, Kolkata Prof. Tanuka Chattopadhyay, CU		
3	National conference on Instrumentation and Control(NATCONIC I) funded by DRDO,CSIO,C-DAC-K	Prof. S.Sengupta,VC,WBUT Prof.A.Roy,VC,JU Prof S.C.Dutta Roy,IIT,Delhi Prof.E.S.Rajagopal,ISI,Bngalore Dr.P.Kapur,Director,CSIO	6-7 January, 2011	70
4	National conference on Instrumentation and Control(NATCONIC) funded by TEQIP-II	Prof.N.C.Shivoprakas	2days,26-27-February, 2013	80
5	International conference on electronics communication and instrumentation (ICECI) funded by TEQIP-II	Dr. Alex Mason, UK Dr. Samar K. Saha, Director, Compact Modeling Inc, USA Dr. Sikharesh Majumder, University of Saskatchewan, Canada	16-17 january, 2014	128
6	1st International Conference on Applied Algorithms (ICCA 2014) under TEQIP II	Prof.Susanne Albers, Humboldt-Universitat zu Berlin, Germany Prof.Bhargab B. Bhattacharya, Indian Statistical Institute, Kolkata, India Prof.Dimitrios Gunopulos, University of Athens, Greece Prof.Rina Panigrahy, Microsoft Research, Mountain View, USA Prof.Assaf Schuster, Technion, Prof.Israel Inst. of Tech., Haifa, Israel Prof.Christos Zaroliagis, University of Patras, Greece	3 Days(13-Jan-14-15-Jan-14)	139

7	International conference on advances in bioprocess engineerinf and technology	Professor Abraham Lenhoff, COBRE Professor Doraiswami Rmkrishna, Purdue University Professor Mohini M.Sain, University of Toronto, Canada Professor M.M.Sharma, a fellow of Royal Society, UK Professor Uttam AC Banerjee, NIT Punjab	20-22 Jan 2016	130

3.1.9 Details on the College initiative in transferring/advocating the relative findings of research of the College and elsewhere to the students and the community (lab to land).

The awareness about the latest research available at institute and university level is shared among the students and faculty members from all walks of life. The practical work of software development is demonstrated before the students by the expert faculty members in the respective fields, and students are advised to check its practical applicability in market and in daily life.

➢ It is compulsory for the students to hold seminars based on their project works.

➢ Students participates in various technological programs and contests where they display their research and project works and institute provides fund to encourage.

➢ The Institute organizes Technological Fest in every year where the students of our institute as well as students from various Institutes/organizasions participated and demonstrated their models, research projects.

➢ External experts are regularly invited by the institute to give lectures to the students on advanced research topics.

➢ The students are also given exposure through conferences /seminars/workshops. (Details can be obtained from Departmental information.)

3.1.10 Give details on the faculty actively involved in research (Guiding student research, leading research projects, engaged in individual or collaborative research activity etc.)

The faculty members are extensively involved in several individual as well as collaborative research activities. Guiding students for their research activities are one of the top priorities of the faculty members. Details of which are available in the respective departmental entres in the website.

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 for last four years.

Rs. 10 lacs was allotted for research last year.

The college provides budget for research as a part of the total budget for the following activities

➢ To conduct and attend seminars /workshops

➢ To purchase new software/hardware unit as per requirement for the research activity

➢ Research paper publication allowances upto Rs. 26,686.00 (Total amount spend Rs. 50,660.00)

➢ Expenditure on participation by faculty in seminars /conferances/workshops.

➢ Expenditure in organizing in house subject area traning programe/workshops/Seminars/continuing education programmes Rs. 50.72 Lakhs from TEQUIP II projects.

3.2.2 What are the financial provisions made in the College budget for supporting student research projects?

There are different categories under which research is undertaken on campus. The B.Tech Programme, M.Tech Programme, MCA Programme where research is possible through the fee collected for the programme, with each activity having a different fee structure on an estimate of the expenditure likely to be incurred for the activity by the faculty in charge.

➢ Registration fees and travel allowance per student for their paper publication in journal /conferenceis reimbursed by the college after attending and submitting the proper document.

➢ Financial assistance for purchasing software /hardware.

	2011-12		2012-13		2013-14		2014-15		2015-2016	
	Proposed in lacs	Actual in lacs	Proposed in lacs	Actual in lacs	Proposed in lacs	Actual in lacs	Proposed in lacs	Actual in lacs	Proposed in lacs	Actual in lacs
AEIE	2.00	2.27	2.00	1.45	2.00	1.77	2.25	2.23	2.50	1.98

BT	1.00	0.59	1.00	1.43	1.00	0.84	1.50	1.70	1.50	1.03
CHE	0.50	0.25	0.50	0.64	0.50	0.76	0.50	0.65	0.50	0.39
CIVIL	--	--	--	--	--	--	0.50	0.48	0.50	0.26
CSE	3.00	3.00	3.00	2.16	3.00	2.52	3.50	2.73	4.00	3.60
ECE	3.00	2.42	3.00	2.10	4.00	3.30	5.00	5.03	7.00	6.42
EE	--	--	--	--	--	--	--	--	1.00	0.95
IT	2.00	1.83	2.00	1.41	2.00	1.47	2.00	1.66	2.00	1.65
ME	--	--	--	--	--	--	0.50	0.27	1.00	1.00
MCA	1.00	0.93	1.25	1.23	1.25	1.15	1.25	1.14	1.25	1.14

3.2.3 Is there a provision in the institution to provide seed money to faculty for research? If so, what percentage of the faculty has received seed money in the last four years?

➤ Faculties are encouraged to apply to AICTE, DST, UGC, other Government Departments, and other organisations for research funding. The College itself have the resources to provide seed money. However, infrastructure, including space, equipment and other facilities are constantly being upgraded by the College, to enable good research. The College covers the expenditure that sometimes does not come from Funding Agencies or from Industry. We have a few such instances. A proposal for grant of seed money to faculty members through TEQUIP is under active consideration.

➤ Seed fund upto 2 lakhs to be made available through TEQIP (as thought)

3.2.4 Are there any special efforts made by the College to encourage faculty to file for patents? If so, provide details of patents filed and enumerate the sanctioned patents.

Yes, college makes effort to encourage the faculty to file for patents.the following faculty member has filed for patent.

1. Dr. Madhurima Chattopadhyay, "A CPAP respirator system using MEMS sensor", Patent No. 1333/KOL/2015 (Filed).
2. A process for the preparation of commercially and pharmaceutically important enzymes (pectinase and acid stable disaccharidases) from the plant Calotropis gigantea. Sengupta S, Mukherjee A. [Indian Patent application No.1104/KOL/2012. Publication date: 28.03.2014]
3. Sengupta S, Mukherjee A and Sengupta S. : A process for the development of an ultra sensitive test method for detection of mercury ion. Patent Application No. 585/KOL/2011.
4. Characterization of nimbidiol as an alpha-glucosidase inhibitor present in neem (*Azadirachta indica)*, useful for non-insulin dependent diabetes treatment. Sengupta S, Mukherjee A. [Application No. 768/KOl/2011].

5. A process for the preparation of a novel disaccharidase enzyme composition from the plant Tinospora cordifolia useful for disaccharide intolerence therapy. Sengupta S, Mukherjee A and Sengupta S. [Application No. 769/KOL/2011].

6. A process for the preparation of a complete enzyme composition from the plant Tinospora cordifolia useful for hydrolysis of starch into glucose as the major end product. Sengupta S, Mukherjee A and Sengupta S. [Application No.1989/Kol/2008; Publication date: 29.04.2011].

7. A process for inhibiting germination of monocotyledonae and dicotyledonae plant seeds. Sengupta S, Majumder K, Mukherjee A. Application No. 664/DEL/2006 A. Publication date: 26.08.2011]

8. Telnet/SSL/zModem based Secure File Transfer Process, Inventors – Arindam Chatterjee, Subhashis Majumder, Pankaj Goyal, Rounak Agarwal and Sourav Kundu, Reference No (Patent Booking No. furnished by the Patent Office): 883/KOL/2013, filed on 24th July, 2013 in Kolkata.

9. Improved Merge Sort Algorithm by Creating Better Partitions, Inventors – Subhashis Majumder and Md. Aman Khan, Reference No. - E-2/1278/2014-KOL (Application No. - 813/KOL/2014), filed on 31st July, 2014 in Kolkata.

10. An Optimum Microfluidic Sample Dilution Method using Weighted Mix-Split of Droplets, Subhashis Majumder, Nilina Bera and Bhargab B. Bhattacharya, Reference No. - E-2/1420/2014-KOL (Application No. - 882/KOL/2014), filed on 27th August, 2014 in Kolkata.

11. Optimization Technique using Evolutionary Algorithms, Dinabandhu Bhandari, CA Murthy, Sankar Kumar Pal, US Patent. Patent No. – 8700548 (Application No. – 13/265, 480).

3.2.5. Provide the following details of ongoing research projects funded by college.

Till now college has no such fund to support research projects of its own.

3.2.6. How many departments of the College have been recognized for their research activities by national / international agencies (UGC-SAP, CAS, DST-FIST; DBT, ICSSR, ICHR, ICPR, etc.) and what is the quantum of assistance received? Mention any two significant outcomes or breakthrough due to such recognition

All the Engineering and Service departments of the institute have undertaken research activities which are recognized by national agencies.

(Details are available in the respective Departmental profile.)

3.2.7 List details of completed research projects undertaken by the College faculty in the last four years and mention the details of grants received for such projects (funded by Industry/National/International agencies).

Consultancy, Training, Testing, R&D Projects	Name of Funding Agency	Amount (in Rs.) Lacs	Duration of the Project		Remarks (ongoing or completed
			From	To	
Dr.Madhurima Chattopadhyay	DST-FIRST TRACK, National Agency ,	Rs-14.37lacs	March 2014	March 2016	ongoing
Prof .Arabinda Kumar Pal	AICTE 8023/RID/RPS-24/2010-11/dtd31.03.2011 &200-62/FIN/04/05/2368dtd 20.05.2011	8.75	June 2011	June 2013	completed
Prof. S.Sengupta	AICTE Funded Projects RPS	Rs-10.5	2010	2012	completed
Dr.S.Bhattacharjee	All India Council of Technical Education (AICTE-RPS)	Rs. 13.67	Feb. 2012	Feb. 2014	completed
Prof. S.Sen -	All India Council of Technical Education (AICTE-RPS)	Rs.19			
Prof. Anindita Bhattacharya	Department of Science & Technology (DST) on under FAST Track Young Scientist Scheme for three years	17	2011	2013	completed
Prof.Sandeep Chatterjee Funded	AICTE-	8 lacs	2010	2012	completed

3.3 Research Facilities

3.3.1 What efforts are made by the College to keep pace with the infrastructure requirements to facilitate Research? How and what strategies are evolved to meet the needs of researchers?

Infrastructure required to facilitate research in the institute has been taken care of. With a view to promote research, the college has appointed Dean of Research to oversee the smooth working of the research facilities within the campus. Research labs are provided in all specialized fields of the departments. Labs are spacious enough to accommodate equipments necessary to carryout research that can be extended to graduate and under graduate students. Individual cubicles are provided to all the faculty members with computers and internet facility to pursue research without disturbance. Large labs with all accessories are provided for students research activity at the under graduate and post graduate level.

A team is formed to pursue research and the needs of the researchers are given highest priority. Almost all departments have separate research lab.

3.3.2 Does the College have an information resource centre to cater to the needs of researchers? If yes, provide details on the facility.

Yes, the college has an information resource center to help the researchers.

Following are the facilities available:

➢ There is a 'Research and Development' section constantly giving upgraded information about the ongoing research works world wide.'

➢ The college library subscribes to several journals and books that could be used by researchers

➢ Digital library system

➢ Traditional library media

➢ All departments are provided with internet facility

3.3.3 Does the College provide residential facilities (with computer and internet facilities) for research scholars and faculty?

No residential facilities are available for researchers at present. Internet access is available in departments and laboratories.

3.3.4 Does the College have a specialized research centre/ workstation to address challenges of research programmes? If yes, give details.

Since research programs are undergoing at the individual faculty levels they utalizes their own specialized laboratories/ centers as well as project laboratories for the purpose.

3.3.5 Does the college have research facilities (centre, etc.) of regional, national and international recognition/repute? Give a brief description of how these facilities are made use of by researchers from other laboratories.

Yes. Details are available under entries of individual departments.

3.4 Research Publications and Awards

3.4.1 Highlight the major research achievements of the College through the following:

➢ major papers presented in regional, national and international conferences

Details as per individual departmental profile.

➢ publication per faculty

AEIE

Year		Publication
2015	International	13
2014	International	8
2013	International	9
2012	International	7
2011	International	2

BT

Year		Publication
2015	International	8
2014	International	10
2013	International	8
2012	International	5
2011	International	4

CHE

Year		Publication
2015	International	06
2014	International	14
2013	International	16
2012	International	15
2011	International	06

CIVIL

Year		Publication
2015	International	06
2014	International	14
2013	International	10
2012	International	10
2011	International	04

CSE

Year		Publication
2015	International	18
2014	International	05
2013	International	05
2012	International	14
2011	International	10

ECE

Year		Publication
2015	International	27
2014	International	15
2013	International	17
2012	International	10
2011	International	10

EE

Year		Publication
2015	International	07
2014	International	07
2013	International	05
2012	International	06
2011	International	03

IT

Year		Publication
2015	International	05
2014	International	00
2013	International	3
2012	International	11
2011	International	00

MCA

Year		Publication
2015	International	06
2014	International	14
2013	International	10
2012	International	02
2011	International	04

ME

Year		Publication
2015	National	4
	International	7
2014	National	3
	International	6
2013	National	3
	International	4

2012	National	3
	International	4
2011	National	3
	International	2

- ➢ faculty serving on the editorial boards of national and international journals

Following faculty members are attached to the editorial boards of national and international journals:

1. **Prof. Subhabrata Sengupta** is one of the members of the editorial board of journal '**Current Enzyme Inhibition.'**
2. **Atanu Kundu** is a member of JARS editorial Board.
3. **Dr. Nandan K Jana** is a member of following editorial board of journals (From 2012- till now)

(i)   Greener Journal of Biological Sciences (GJBS)
(ii) Journal of AIDS and HIV Research (JAHR)
(iii) Journal Brewing and Distilling (JBD)

4. **Dr. T.K.Ghosh** is a member of following editorial board of journals

(i) Journal of Developmental Biology and Tissue Engineering (since 2010)
(ii) Recent research in Science and Technology (since 2012)

- ➢ Faculty members on the organisation committees of international conferences, recognized by reputed organizations / societies include

- International Conference on Advances in Bioprocess Engineering and Technology (ICABET- 2016) funded by TEQIP-II**.The details are in the department**.

- 1st International Conference on Applied Algorithms (ICCA -2014) funded by TEQIP-II .**The details are in the department.**

- International Conference on Electronics Communication and Instrumentation (ICECI-2013) funded by TEQIP-II .**The details are in the department**

- Dr. Subhashis Majumder was a programme committee member of VDAT-2014 International conference.

- Dr.Dinabandhu Bhandari was a member of different programme committee as below:

   2015-16
   Member, Program Committee, International Conference on Computer Vision and Image Processing (CVIP 2016), IIT Roorkee

2015-16

Member, Technical Program Committee, 2nd International Conference on Computational Intelligence & Networks, 2016, KIIT University, Bhubaneswar, Odisha, India

2014-2015

Member, Program Committee, 2nd and 3rd International Conference on Advanced Computing, Networking, and Informatics [ICACNI-2014], Kolkata and Bhubaneswar

2013

Member, Program Committee, International Conference on Pattern Recognition and Machine Intelligence (PReMI 13), Kolkata, India

3.4.2 Does the college publish research journals? If yes, indicate the composition of the editorial board, publication policies and whether it is listed in international database?

NO

3.4.3 Give details of publications by Faculty:

Number papers published in peer reviewed journals (national / international)

The total number of publications by the faculty is 427 in national and international journal in last five years.

B **Monographs:** Each department has printed Monograph (lab manual) for each laboratory and supplied to the students. Details as per individual departmental profile.

Chapters in Books: 33 (Details are available in departmental report)

Editing Books:

Books with ISBN numbers with details of publishers: 34
(Details are available in departmental report)

Number listed in International Database (For e.g. Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.):

Citation Index-range/average:	1-200
SNIP:	0-1.03
SJR:	0-1.2
Impact factor-range/average:	0.5-8
H-index:	0-7

3.4.4 Indicate the average number of successful M. Tech, M. Phil. and Ph. D scholars guided per faculty.

M. Phil. course is not offered by the Institute. Regarding M.Tech and Ph.D. scholars guided per faculty, detail is available in the respective departmental profile.

3.4.5 What is the stated policy of the College to check malpractices and misconduct in research?

The Institution has a well known and publicized zero tolerance policy towards plagiarism and malpractices in research.It may be noted that there have been no such cases of plagiarism in last five years.

3.4.6 Does the College promote interdisciplinary research? If yes, how many inter departmental / inter disciplinary research projects have been undertaken and mention the number of departments involved in such an endeavour.

The college supports interdisciplinary academic ventures, both intra and inter institutional.Many faculty members are involved in various interdisciplinary research projects.

The institute, however, has taken a decision to apply for the permission to introduce an M. Tech. Course in 'Renewable Energy' where engineering graduates from any discipline and M.Sc. with Physcis, Chemistry and Mathematics will be eligible for admission.

3.4.7 Mention the research awards instituted by the College.

The College has instituted one annual Research award. It is given to a member of the faculty for the contribution they have made to research in their field. The award has been instituted since 2006. The following faculty members received the award since its inception.

Year	Name of the faculty member	Department
2012	Dr. Shreedhara Gupta,	Assistant Professor, Chemistry
2013	Prof. Arabinda Kumar Pal,	Associate Professor, AEIE
2014	Prof. (Dr.) Srabanti Basu,	Associate Professor & HOD, Dept. of Biotechnology
2015	Prof. Atanu Kundu	Assistant Professor, Dept. of ECE

3.4.8 Provide details of:

Research awards received by the faculty:

Quite a few numbers of faculties have bagged awards for their research activities from reputed professional bodies and National Institutes.

3.4.9. State the incentives given to faculty for receiving state, national and international recognitions for research contributions.

The individuals who receive awards are usually honoured with a congratulatory receiption in the departmental level. Their achievements are also given recognition by the college with special mention in the college magazine and on the website.

3.5 Consultancy

3.5.1 What is the stated policy of the College for structured consultancy? List a few important consultancy services undertaken by the College.

Faculty and staff members are encouraged by the college to offer consultancy to promote research grant from industry and build up Industry-Institute partnership.

1. East India Pharmaceuticals Works Pvt. Ltd.
   Address: 6, Nandalal Bose Sarani, Kolkata -700071, West Bengal, India
   Status of the project: Phase I completed
   Principal Investigator: Prof. (Dr.) Pinaki Bhattacharya
   Co- Principal Investigator: Prof. (Dr.) Diptendu Datta

2. Consultancy with East India Pharmaceuticals Works Pvt.
   Ltd. in order to produce specialized chemicals and Revenue
   generated: 5000 INR

3.5.2 Does the College have College-industry cell? If yes, what is its scope and range of activities?

Yes.

College has MOUs with Industries (Sun Oil Company Pvt. Ltd.; Vikram Solar Pvt. Ltd.; Baid Power Electronics; Sankalp Electronics; CEGESS, IIEST)

In regard to

- Collaborative research and development work
- Faculty and student training in the industries
- Plant visit by the faculties and students.

3.5.3 What is the mode of publicizing the expertise of the College for consultancy services? Mention the departments from whom consultancy was sought.

The expertise of teachers specially that are related to engineering is well known in the state.The faculty members are often called by different institutions to provide expert advicse on matters related to wide range of issues from engineering to environment.

Chemical Engineering, Bio-Technology and Computer Sceince & Engineering are three departments from where consultancy services were sought. (Details are again available in the departmental report)

3.5.4 How does the College encourage the faculty to utilise the expertise for consultancy services?

Name of Project	Principal Investigator/ Co Principal Investigator	Funding Agency	Amount (in Rs.)	Nature of Consultancy
Supply and Order Management System(SOMS)	Dr. Aniruddha Dasgupta Kamal Poddar Mandakini Majumdar Poulami Das Satabdi Barman Sandip Samaddar Anindita Ghosh	Vikram Solar Pvt. Ltd	2,75,000/-	Software development work
Project titled "Preparation of Nitro-p - dichlorobenzene via nitration of p-dichlorobenzene"	Prof. (Dr.) Pinaki Bhattacharya; Co-PI: Prof. (Dr.) Diptendu Datta)	East India Pharmaceuticals Works Pvt. Ltd. (Address: 6, Nandalal Bose Sarani, Kolkata - 700071, West Bengal, India). Status of the project: Phase I completed	Rs. 60,000/	Research and development work

3.5.5 List the broad areas of consultancy services provided by the College and the revenue generated during the last four years.

(a) Consultancy with East India Pharmaceuticals Works Pvt. Ltd. To Chemical Engineering Department on production of specialized chemicals Revenue generated: 5000 INR (CE)

3.6 Extension Activities and Institutional Social Responsibility (ISR)

3.6.1 How does college sensitize the faculty and students on Institutional Social Responsibilities? List the social outreach programmes which have created an impact on students' campus experience.

Yes, For the purpose of Institutional Social Responsibilities our students' are actively participate in "Rotract Club", which has been officially presented the Charter of Rotary

International, being next only to IIM Calcutta, IIT Kharagpur and Jadavpur University, in the state of west Bengal with following activities:

Social outreach programmes	Date, Venue
1. Rainbow 2015	23rd August 2015 The Heritage School Auditorium, Heritage Institute of Technology
`2. Slam Poetry Session	9th August,2015 Heritage Institute of Technology
3. Suryakiran Independence Day	20th August,2015 The Heritage School Auditorium, Heritage Institute of Technology
4. Threads That Unite	1st September, 2015 Heritage Institute of Technology, Anandapur
5. Lending a Hand	5th October to 6th October CB lobby, AV Hall, Heritage Institute of Technology
6. Thalassemia Awareness Workshop	4th November, 2015 Department of Biotechnology, at A-building Seminar Hall, Heritage Institute of Technology

3.6.2 How does the college promote College-neighborhood network and student engagement, contributing to holistic development of students and sustained community development?

Our college students' actively participate in following activities every year:

➢ Visiting Malwani Homes, an old age home for women on a regular basis for contributing towards easing their lives.

➢ Weekly visit to a school for underprivileged children in the slum under the Ballygunge Bridge run by SLARTC, an NGO, to impart teaching.

➢ Organizing Annual Sports Day and Diwali celebrations for the kids of Suryakiran.

➢ "Clean up Drive"-Along the lines of the recent national movement of "Swachh Bharat Abhiyan", RC-HIT-K in collaboration with the Heritage Group of Schools and Colleges organized a clean-up drive on 14th of November,2014.

- On 23rd of March, 2014 a team of enthusiastic Rotaractors from Rotract Club of Heritage Institute of Technology visited a slum school in Beliaghata, run by the NGO, "Kholo Ankhi" to conduct a Health and Hygiene Workshop. There were a total of 50 children belonging to the age group of 5-10 years.

- On 23rd of February 2014, a health camp was organized by KALYAN BHARTI TRUST in the college campus from 10:00a.m-1:00p.m. The event saw a massive turnout of around 200 people from the neighboring villages of Anandapur.

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

1. Our college encourages the participation of students and faculty in extension activities as in our WBUT curriculum a course of NSS (XC181) is mandatory in 1ˢᵗ semester.

2. A very active Rotract club and their participation in many activities which promotes in various internet sites.

- Uncharted Delta Project got published in the RI Newsletter.: http://rotaryn-ewsonline.org/2015/11/06/light-after-storm/
- Our Pujo Projects got a mention in Telegraph
- Waste Management at Kulti got published in Earth Smiles and Campus Buzz: http://www.earthsmiles.net/0715/articles003_stories.html, http://www.wbutadda.com/campus-buzz/h/heritage-institute-of-technology/garbage-free-india-initiative-by-rotaract-club/
- First Ever publication in the Rotary International News: http://rotarynewsonline.org/2015/11/06/light-after-storm
- Publication in EarthSmiles.net http://www.earthsmiles.net/0715/articles003_stories.html

3.6.4. Give details on social surveys, research or extension work (if any) undertaken by the College to ensure social justice and empower the under-privileged and most vulnerable sections of society?

An exhaustive survey was carried out by our institution to look after the under-privileged and vulnerable sections of society. Our students and member of Rotract club are weekly visiting some of the places on "Literacy Project" who are under-privileged

1. **Chingrighata Classes**- For more than a year now, our Rotract club provide tutorial classes twice a week for those students who are from the families that are under poverty line.

2. **Magrahat Classes**: Every Sunday morning, a couple of our extremely dedicated volunteers reach to Magrahat to teach subjects ranging from English grammar and vocabulary to pronunciation.

3. **Spoken English classes at Rajabazar:** To empower girls from orthodox Muslim families, Rotract club of HIT-K started teaching spoken English to a school at Rajabazar. A group of & enthusiastic girls from slums in Rajabazar come every Wednesday to Friday to learn spoken English.

4. **Adult Literacy Project:** Rotract club of HIT-K has taken up the task of empowering the women of working class. The mothers of Suryakiran school (a school of under-privileged under the Kalyan Bharati Trust) mostly belong to working class. A group of 10 extremely enthusiastic women are being taught the fundamentals of English, Bengali, Hindi and Maths. They also plan to teach them handicrafts to enhance their monthly income. The classes are being held twice a week.

5. **Suryakiran computer class:** There is never a dull day spent with the Suryakiran ex-students who come for the computer classes. The classes are conducted every Thursday from 3-6pm in the heritage school computer lab.

3.6.5. Give details of awards / recognition received by the College for extension activities community development work.

Rotaract Club of Heritage Institute of Technology was awarded for being the best club out of 30 Rotaract Clubs in Rotaract District 3291 at the Annual District Awards Event of Rotaract District 3291, for the term 2014-15, which was held on 28th June, 2015. A total of 16 awards were received by RC HIT-K (maximum that was ever received since 2009), details of which are as follows:

1. Best Club of Rotaract District 3291

2. Best President in Rotaract District 3291- Ramyani Mukherjee

3. Best Secretary in Rotaract District 3291- Swarnadeep Biswas

4. Best Club in Community Service

5. Best Project- Joga Bonito (Knock out Football Tournament for raising funds for Durbar Football team - members comprising children of sex workers of Sonagachi : a red light area)

6. Best R-Idea of the year- Liter of Light (A 2-day project to demonstrate use of ordinary water bottles and bleach to illuminate the houses of the poor : it is an eco friendly and cost effective method of providing light to those places which are quite congested)

7. Best International Service Project- The Great Raffle for Nepal Earthquake victims

8. Best Professional Development Project- Outliers (Women's Day Celebration)

9. Best Special Area Project- Project Teach

10. Best Club in Basic Education and Literacy

11. Best club that has complied with DRR's thrust areas (a total of 26 thrust area projects)

12. Club with best bulletin

13. Club with best social media presence

14. Most Popular Club

15. Most Popular Rotaractor- Sayantani Roy

16. Outstanding Rotaractor of Rotaract District 3291- Sayantani Roy

3.6.6 Reflecting on objectives and expected outcomes of the extension activities organized by the College, comment on how they complement students' academic learning experience and specify the values and skills inculcated?

All these extension activities are conducted with the intention of ensuring that the development of our students is not one dimensional but holistic. Such a vision cannot be realized without ensuring that their sense of social responsibility forms a strong driving force in their lives. It has been observed that participating in the following activities like "Swatch Bharat Abhiyan", Blood donation camp, taking classes to the children who come from backward class etc students become more conscious about the fragilities of our ecology and they begin to spread the message through the campus and through the street.

These activities have resulted in a positive growth of our students and learn many lessons like:

➢ Understanding one another.
➢ Co-operation
➢ Learning work together
➢ Careful use of resources
➢ Enhanced communication skills

3.6.7. How does the College ensure the involvement of the community in its outreach activities and contribute to the community development? Detail the initiatives of the College which have encouraged community participation in its activities.

The college promotes the involvement of the community in its outreach activities and contributes to the community development by encouraging the inclusion of extension activities as part of the curriculum in various departments. In addition, every student has to complete at least 1 hour under the social involvement programme of the college. They conduct rural camps every year which helps students to connect with and identify with the challenges faced by the rural population in their day to day living. The sessions

conducted by Rotract club in our campus brings in people from all walks of life and sensitizes them to varied issues.

3.6.8. Does the College have a mechanism to track the students' involvement in various social movements / activities which promote citizenship roles?

Yes. The college has various committes to co-ordinate the extension programmes. These committees take care of all logistics like orientation for students. The rigorous requirements for attendance and evaluation help in tracking the student's involvement in various activities of the college. The committees are actively involved in extension activities which promote citizenship

- ➢ Health centre (Medical camps, Blood donation camps, Thalassemia awareness)
- ➢ Placement, career guidance cell
- ➢ Quiz, Debate competition
- ➢ Literacy association
- ➢ Science association. Waste management, Recycling of materials

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

Rotract club of Heritage Institute of Technology in collaboration with Blood Connect and Haldia Ramakrishna Seba Sadan organize blood donation camp and medical health check up.

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.

Rotaract Club of Heritage Institute of Technology was awarded for being the best club out of 30 Rotaract Clubs in Rotaract District 3291 at the Annual District Awards Event of Rotaract District 3291, for the term 2014-15, which was held on 28th June, 2015. A total of 16 awards were received by RC HIT-K (maximum that was ever received since 2009), details of which are as follows:

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7. Best International Service Project- The Great Raffle for Nepal Earthquake victims

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14. Most Popular Club

15. Most Popular Rotaractor- Sayantani Roy

16. Outstanding Rotaractor of Rotaract District 3291- Sayantani Roy

3.7. Collaboration:

3.7.1 How has the College's collaboration with other agencies impacted the visibility, identity and diversity of activities on the campus? To what extent has the College benefitted academically and financially because of collaborations?

College's collaboration with other institutions and agencies are having lots of importance. The basic objectives are to promote contact and collaboration between members of faculty, staff and students to carry out joint research programmes, cooperation in academic programmes, organize seminars, workshops on mutually agreed activities.

Yes, our college has benefitted academically and financially because of the collaboration between our institute with other institute and agencies and TEQIP-II fund is provided by the World Bank assists with Ministry of Human Resource Development to our institute for enhancing the quality improvement plan in higher education.

There has been Memorandum of Understanding (MOU) signed between Heritage Institute of Technology, Kolkata (HIT-K) with many of other institute and agencies with the objective of

- Collaborative R & D activities on efficient solar cells development utilizing the state-of–the-art laboratory facilities of CEGESS, IIEST

- Shibpur and other relevant academic programmes such as conducting an M.Tech. Course on Renewable Energy & Energy Audit' at HIT-K. Organizing Workshops, Conferences and Symposia with joint participation of VS, EFRAC and HIT-K and also

- Encouraging engineers from VS / EFRAC to visit HIT-K to deliver lectures to our students.

3.7.2. Mention specific examples of, how these linkages promote

- ➢ Curriculum development
- ➢ Internship, On-the-job training
- ➢ Faculty exchange and development
- ➢ Research, Publication
- ➢ Consultancy, Extension
- ➢ Student placement
- ➢ Any other, please specify

Name of the Department	Curriculum development	Internship, On-the-job training	Faculty exchange and development	Research, Publication	Consultancy, Extension	Student placement	Any other, please specify
Civil Engineering	Conducting workshop for framing 2nd Year and 3rd Year, B. Tech. Syllabi on 19.12.2014 and 21.01.2016. <u>List of External Experts</u>: • Prof. (Dr.) Aparna Dey Ghosh, Professor of Civil engineering, IIEST, Shibpur. • Prof. (Dr.) Sujata Biswas, Assistant Professor of Civil engineering, IIEST, Shibpur.	Summer research programme at New Jersey Institute of Technology (NJIT), USA on 24th June to 1st aug, 2013 • Six of our students are participated from our department in the year of 2013.	NIL	**Kousik Deb**, Associate Professor, Dept. of Civil Engineering, IIT Kharagpur, India **Aniruddha Sengupta**, Professor, Dept. of Civil Engineering, IIT Kharagpur, India.	NIL	TCS-Infosys-Wipro-	

	• Prof. (Dr.) Tapash Roy, Assistant Professor (Senior Scale), Dept. of Civil Engineering, IIEST, Shibpur. • Prof. (Dr.) Debabrata Mazumder, Professor, Dept. of Civil Engineering, IIEST, Shibpur. • Er. Achintya Biswas, Sr. GM, DCPL <u>Question paper moderator:</u> Prof. Sneha Murmu, Asst. Prof, Dept. of CE, IIEST, Shibpur			**Prof. (Dr.) Debabrata Mazumder,** Professor, Dept. of Civil Engineering, IIEST, Shibpur.			
Mechanical Engineering	Not directly applicable	With New Jersey Institute of Technology. From our department 3 students have taken Internship training.	NA	NA	NA	NA	

Name of the Department	Curriculum development	Internship, On-the-job training	Faculty exchange and development	Research, Publication	Consultancy, Extension	Student placement	Any other, please specify
Chemical Engineering	1. An M.Tech. course on "Renewable Energy" has been designed with the help of experts from IIEST, Jadavpur University and Industry 2. A MOU exists between the institute and CEGESS, IIEST, Shibpur, Howrah MOU exists between the institute and National Environmental Engineering Research Institute (NEERI), Nagpur since 6th April, 2010 for three years for carrying research facility	1. Students participate in the Summer Internship at NJIT, USA 2. Students participate in the Summer and Winter Internship at Sun Oil Company Pvt. Ltd., West Bengal	NIL	Although faculty members have quite a large number of publications with the faculty members from other reputed institutes, but these are not under MOU	Project titled "Preparation of Nitro-p -dichlorobenzene via nitration of p-dichlorobenzene" with a grant amount of Rs. 60,000/- from East India Pharmaceuticals Works Pvt. Ltd. (Address: 6, Nandalal Bose Sarani, Kolkata - 700071, West Bengal, India). Status of the project: Phase I completed Principal Investigator: Prof. (Dr.) Pinaki	Placements of the students are done through Training and Placement Cell and through individual effort after qualifying competitive examinations	Faculty members have PhD scholars with Co-supervisor(s) from reputed educational institutes.

					Bhattach arya Co- Principal Investigat or: Prof. (Dr.) Diptendu Datta		

3.7.3 Does the College have MoUs nationally / internationally and with institutions of national importance/other universities/ industries/corporate houses etc.? If yes, explain how the MoUs have contributed in enhancing the quality and output of teaching learning research and development activities of the College?

Yes. The college has Memorandum of Understanding, nationally and internationally, with other institutions and agencies. The MoUs have contributed in enhancing teaching-learning research and development activities of the college as follows:

1. Our college collaborates with many reputed institutions like Deakin University, IIT-Kgp, NEERI (National Environmental Engineering Research Institute, Nagpur), NJIT (New Jersey Institute of Technology),Sungkyunkwan University, Allabama University, University of Massachusetts Lowell (UML), IIEST (Shibpur) where our college students and staff can participate in their conference, seminars, workshops and Research programs funded by TEQIP-II. This will develop their knowledge and explore their research works worldwide.

- **Summer Research Programme at New Jersey Institute of Engineering (NJIT), New Jersey, USA** :

   Since its inception in 2008, the Programme has benefitted a total of 95 2nd & 3rd Year B Tech students of our Institution.

   The outcome of this Summer Research Programme has shown a tremendous success. One of the students who participated in this programme has already received PhD in a high ranking university in the USA.

   Students who have participated in this Programme have continued their education at excellent graduate schools (both in India and abroad), obtained lucrative jobs (often in unfavorable job markets), received scholarships and awards from local, national, and international organizations, published papers in international conferences and journals, and improved their academic grades and self-confidence.

3.7.4 Has the College-Industry interactions resulted in the establishment / creation of highly specialized laboratories / facilities on campus?

All the department with their interaction industrial expert and academic expert have developed the specialized

Sr.No.	Department	Specialized labs
1	AEIE	Research Lab, DSP Lab,Process Control Lab, M. Tech Lab,Microprocessor Lab
2	BT	Recombinant DNA tech Lab,plant tissue culture Lab,fermentation tech Lab,R & D Lab,Molecular Biology Lab
3	CHE	Mass transfer Lab, Fluid Mechanics Lab, Heat Transfer Lab, mechanical operation lab,energy lab,chemical reaction lab,process equipment design and drawing lab
4	CIVIL	Environmental Engineering Lab, Concrete lab, Soil Mechanics lab, Highway and transportation Engg Lab , CAD lab, Strength of Materials lab and Geology Lab.
5	CSE	Basic computing lab, DBMS lab,Project lab, Advanced Computing lab (M. Tech)
6	ECE	Microwave and Antenna Lab,VLSI Lab,Advance Communication Lab,control system engg lab,M.Tech VLSI Lab,analog communication lab
7	EE	Microprocessor and microcontroller Lab
8	IT	HP Proliant ML350G6 Server at ICT B06 LAB. Generally used for research work.
9	ME	Advance manufacturing lab,Machine Shop, ,IC Engine Lab,Heat Transfer Lab,Dynamics of Machine Lab
10	MCA	MCA lab I& II,ITRA DISARM project lab

3.8 SWOC Analysis of the Institute

Strengths:

➢ Good Industry- Institute Interaction.

➢ Highly qualified faculties (Ph.D./Post Doctorate) with international exposure in emerging areas.

➢ Dynamic national relations through active MOU with renowned R&D labs of reputed industries in India.

➢ Renouned projects in association with reputed R& D organizations and Industries like DST, UGC, MODROB, AICTE, TEQIP.

➢ Students involvement in research work in collaboration with New Jersy Institute of Technology etc.

➢ Infrastructure for non-conventional energy (solar energy) production in collaboration with industry.

Weakness

➢ Limited collaborative research work between departments within the institute.

➢ Consultancy accitivity need to be enhanced.

➢ Lack of adequate funding for research activities

➢ Involvement in the faculty exchange programs with IITs and other Technological Institutes within India and abroad is inadequate.

Opportunities

➢ Offer under graduate honors and post graduate course in different science subjects as the institute has highly qualified faculty members in all branches of basic sciences.

➢ To have more faculty as well as students exchange programs with Universities and other Technological Institutes of repute both within India and abroad.

➢ To undertake M.Tech. Programs in all the streams of the Institute.

➢ R & D projects (formulation and execution) in domains of relevance to state/national missions, such as renewable energy/ innovate manufacturing/advanced materials.

➢ Generate wider cluster of Institute-Industry collaboration.

➢ Fostering a large number of start-ups through Vel Tech-TBI

Challenges:

➢ Competition from a large number of new universities/government institutions.

➢ Inadequate support from national funding agencies to autonomous institutes.

➢ Increasing lead time in securing grants from government agencies.

➢ High budgetary requirements related to establish new and equipped research centers.

CRITERION IV: <u>Infrastructure and Learning Resources</u>

4.1 Physical Facilities

The Institute is located on 22,742.00 sqm land and has adequate physical infrastructure to accommodate all departments, class rooms supportive facilities. Whenever new courses are introduced the institute plans and constructs new buildings.

4.1.1 How does the College plan and ensure adequate availability of physical infrastructure and ensure its optimal utilization?

The institute ensures the optimal utilization of available infrastructure by effective participatory planning.

Heritage Institute of Technology evolved a system for the optimal utilization of existing infrastructure resources. The institute has an excellent infrastructural physical facility which includes existing class rooms, laboratories, staff rooms, toilets, tutorial rooms, administrative area etc.

The institute is always ready to provide a systematic effort to grow its infrastructure needs and to keep up the progress with new supplementary facility.

The time table committee plans well in advance for all requirements like class rooms, laboratories, furniture and other equipments and amenities. The management has enough time to rearrange some of the ruined or unused facilities at the beginning of every academic year. The institute uses optimal utilization of the seminar hall and auditorium.

Existing Buildings

CME building: This building includes

Name of the room	Number of rooms	Area (square meters)
Laboratory	44	4600.62
Class rooms	20	1802.7
Toilets	13	679.2
Staff rooms	8	538
Administrative area	7	499.68
Tutorial rooms	8	443.46

ICT building: This building includes

Name of the room	Number of rooms	Area (square meters)
Laboratory	44	3156
Class rooms	18	1728
Toilets	19	332
Staff rooms	9	448
Administrative area	4	132
Tutorial rooms	9	360

Central Block: This building includes

Name of the room	Number of rooms	Area (square meters)
Laboratory	34	2755
Class rooms	21	2016
Toilets	14	880
Staff rooms	11	607
Administrative area	-	2912
Tutorial rooms	8	366
Library	1	11500
Auditorium	1	1502

SAC building: This building includes

Name of the room	Number of rooms	Area (square meters)
Laboratory	4	254
Class rooms	3	231
Toilets	5	65
Staff rooms	1	62
Administrative area	6	260

Tutorial rooms	1	33
Library	1	100

Other buildings:

Building	Area (square meters)
Sub-station	169
Workshop	344
Canteen	507
Boy's Hostel	731.37
Girl's Hostel	1668

4.1.2 Does the College have a policy for creation and enhancement of infrastructure in order to promote a good teaching-learning environment? If yes, mention a few recent initiatives.

There is a continuous process of upgrading and enhancement of infrastructures, all OHP are being replaced by LCD Projectors , acoustics of class room have been improved and better sitting arrangements of the students are made by replacing the old ones.

4.1.3 Does the College provide all departments with facilities like office room, common room, separate rest rooms for women students and staff?

Yes. Every department has adequate number of class rooms, tutorial rooms, faculty room. All Departments have separate office and separate restrooms for Ladies staff and students. However, the common room is common to all the departments.

4.1.4 How does the College ensure that the infrastructure facilities meet the requirements of students/staff with disabilities?

All the building have a ramp and lift for student with disabilities, the toilets are being provided with support system for staff and student with disability.

4.1.5 How does the College cater to the residential requirements of students? Mention

The college have hostel facilities for 220 girls and 120 boys and hostel facilities is being provided to outstation students.

➢ The hostels are provided with broadband connectivity /Wi Fi , the campus is Wi Fi enabled.

➢ There is provision of Gym in the hostel.

➢ There is a Yoga and meditation centre in the campus and interested student may take part in the same.

* Capacity of the hostels and occupancy (to be given separately for men and women)

Capacity of Boys hostel: 220 and capacity of Girls hostel: 120 occupancy rate (girls: 95%, boys: 80%)

* Recreational facilities in hostel/s like gymnasium, yoga center, etc.
* Broadband connectivity / Wi-Fi facility in hostel/s.

4.1.6 How does the College cope with the health related support services for its students, faculty and non-teaching staff on the campus and beyond?

There is infirmary in the campus with trained nurses coming on daily basis and visiting doctors twice a week. Proximities of nos. of renowned hospitals within 2 to three KMs is added advantages.

4.1.7 What special facilities are made available on the campus to promote interest in sports and cultural events?

The campus have large play fields for Football and net practice for cricket apart from Basketball and volley ball and Archery. Trainers are available for interested students after study hours.

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?

The Library Advisory Committee consists of

➢   Prof. (Dr.) Subhabrata Sengupta (BT), Dean (PG & Research)
➢   Dr. Binod Bihari Das, Library Advisor
➢   Prof. (Dr.) Tapas Sadhu (CE)
➢   Prof. (Dr.) Aniruddha Dasgupta (CSE)
➢   Prof. (Dr.) Ajanta Das (Physics)
➢   Prof. Atanu Kundu (ECE)
➢   Dr. Debarati Dey (Chemistry)

The significant initiatives implemented by the committee to make the library user friendly:

➢   Monitor the students' use of the library facilities and suggest measures to make library services more user –friendly and easyS accessible.

➢   Users are reminded with information regarding renewal and over dues.
➢   Library working hours have been extended up to 6 pm during the working days.

➢   Any suggestions/grievances are invited from users through Suggestion Box and action is taken accordingly after discussion with Committee.

> The students can access question papers of previous years

> Digital Library has been set up with 20 systems connected with high –speed network connectivity to access all e-resources and video streaming e- learning program.

> The Head of the Departments recommend for the annual purchase of subject and reference books. The Library receives requisitions from Departments and faculty members for new books and all these are discussed in meeting of the Library Advisory Committee

> Ensure proper maintenance of all library facilities

> Discuss and place its views on any library related matter as required by the college management.

4.2.2.

Provide details of the following:

> Total area of the library (in Sq. Mts.) : 1858 sq. mts

> Total seating capacity: 250

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

- On working days: **09:00 A.M. to 06:00 P.M.**
- On holidays: 9:00 A.M. to 01:30 P.M.
- On or before examination days: 09:00 A.M. to 07:00 P.M.
- During examination days: 09:00 A.M. to 07:00 P.M.
- During vacation: 09:00 A.M. to 05:00P.M.

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

BASEMENT FLOOR PLAN

GROUND FLOOR PLAN
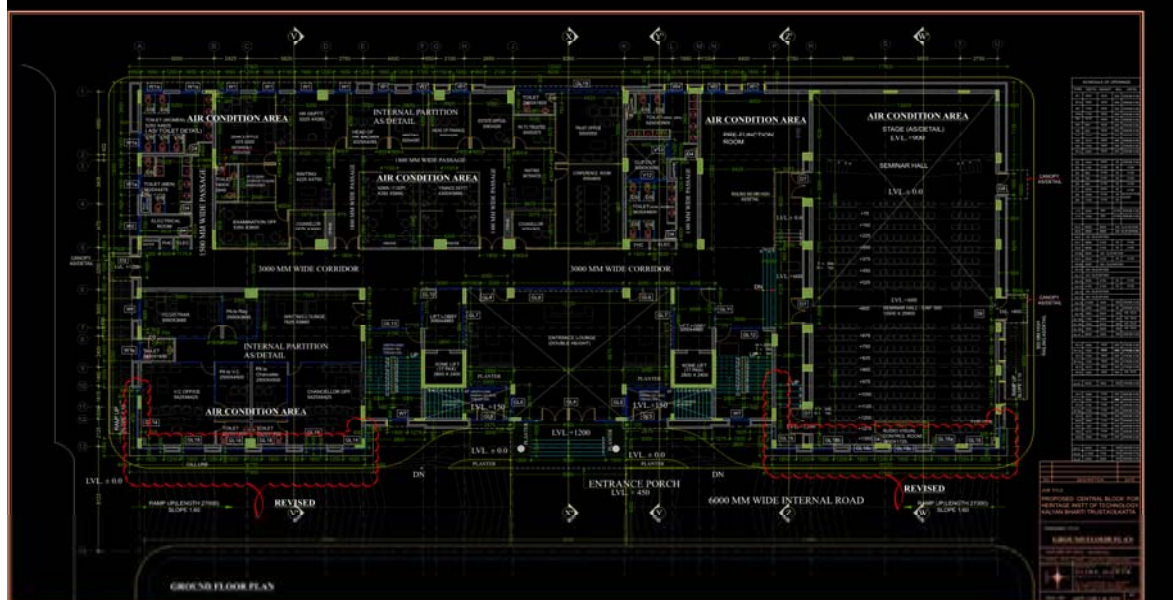
- ▪ Individual reading carrels : YES
- ▪ lounge area for browsing and relaxed reading : YES (under plan in the extended area)
- ▪ IT zone for accessing e-resources : YES

➢ Access to the premises through prominent display of clearly laid out floor plan adequate signage; fire alarm; access to differently abled users and mode of access to collection)

- Access to the premises through prominent display of clearly laid out floor plan:
YES
- Adequate signage :	YES
- Fire alarm :	YES
- access to differently abled users and mode of access to collection :
YES, lifts are available in library

Library staff personally assist the differently abled people in accessing and using library resources.

Photograph shows the entrance of the Central Llibrary;

4.2.3. Give details on the library holdings

a) Print
(Books, back volumes and thesis)
- Books: Title- 5229; Volume:45804 (up to 31st March, 2016)
- Print National /International Journals ; 172
- Back volumes: 1000(Journals)

b) Non Print (Microfiche, AV)
CD/DVDS: 3500

c) Electronic (e-books, e-Journals) : 642

d) Special collection
(eg. Text book, Reference books, standards, patents).

- Text books :	YES 21593
- Reference books	YES 1200
- TEQIP collection	YES 69
- Semester Books	YES 22053
- Career Guidance Books	YES 225

- ▪ Donated Books   YES   642
- ▪ Standards   YES   22

4.2.4. What tools does the library deploy to provide access to the collection?

- ➢ Open Access System
- ➢ From Information Desk the human personalised Service is provided to users on regular basis
- ➢ Wi-Fi enabled reading hall
- ➢ OPAC: software interface between the user and collections of the library
- ➢ Computers for internet browsing and Digital library i.e. 24 computers with multimedia.
- ➢ Digital library with more than 3500 CD/DVDs
- ➢ High end reprographic machine
- ➢ E-journal, e-books, reports under DELNET
- ➢ Library Website
- ➢ Library automation
- ➢ Total number of computers for users : 20+4
- ➢ Total number of printer for users: 01
- ➢ Electronic Resource Management package for e-journals: Yes
- ➢ Participation in Resource sharing network / consortia :DELNET, British Council, American Library and IEI is available
- ➢ In-house/remote access to e-publications: YES, In-house access to e-publications is available through Intranet
- ➢ Scanning Service is available

4.2.5 To what extent is the ICT deployed in the library?

- ➢ Library automation: The library services are fully automated through using the standard package Libsys. All the transactions are fully computerized and all the documents are bar coded. The barcode ID and scanner are used for charging and discharging the books.
- ➢ Wi-Fi enabled reading hall
- ➢ Computers for internet browsing and Digital library i.e. 24 computers with multimedia
- ➢ Digital library with more than 3500CD/DVDs
- ➢ High end reprographic machine
- ➢ E-journal, e-books, reports under DELNET
- ➢ Library Website
- ➢ Antitheft Solution for security measure
- ➢ OPAC: software interface between the user and collections of a library (for searching resources)
- ➢ Total number of computers for users : 20+4
- ➢ Total number of printer for users: 01

➢ Electronic Resource Management package for e-journals: Yes
➢ Participation in Resource sharing network/ consortia :DELNET, British Council ,American Library and IEI is available
➢ In-house/remote access to e-publications: In-house access to e-publications is available through Intranet
➢ Internet band width speed: 60 Mbps
➢ Content Management system for e-learning : NPTEL video streaming courses available
➢ Institutional Repository: Question paper, Publications etc. (building IR through D-space)
➢ The library is equipped with CCTV cameras to secure the resources .
➢ Information of books/journals procurement and attendance of staff be done through newly introduced ERP System

4.2.6 Provide details

➢ Average number of walk-ins:350 per day
➢ Average number of books issued/returned: Issued-76543, Returned-74758 for the session: 2014-15 till 31.03.2015
➢ Ratio of library books to students enrolled:1:15
➢ Average number of books added during last three years: 2000
➢ Average number of login to OPAC: 150 (approx.)
➢ Average number of login to e-resources: 50 /day
➢ Average number of e-resources downloaded/printed: 40
➢ Number of information literacy trainings organized: at the time of admission and also in searching digital resources.

4.2.7 Give details of the specialized services provided by the library.

➢ Reference: The library has a separate reference section which has leading printed /online reference collections. Resources include special collection of subject references, competitive exam books
➢ (GATE,TOEFL etc.), CDs /DVDs, IS standards, and TEQIP books.
➢ Reprography: 500 pages per day(approx.)
➢ ILL (Inter Library Loan Service): Yes
➢ The library has a journal section where the current issues of the journals are displayed.

Information Deployment and Notification:

➢ Alerting services to the departments regarding new arrival of books
➢ Current awareness services with the scanned copy of the content pages of new issues of the journals to the departments through e-mail.
➢ OPAC: for searching the resources of the library
➢ Display of new arrival of books and journals

- ➢ Through library publication: Know Your Library
- ➢ Display of Publishers' catalogue and Bibliography
- ➢ Information through e-mail
- ➢ Information displayed on Notice Board
- ➢ Posters of events on the campus are displayed on the Board within the library
- ➢ Anti- ragging posters are displayed
- ➢ Any event related to the library is uploaded on the college website/ e-mail notice
  - ▪ Internet Access: Yes
  - ▪ Downloads: Yes
  - ▪ Printouts: Yes
  - ▪ Reading list/ Bibliography compilation: On demand/ on request
  - ▪ In-house access to e-resources: Yes, through IP authentication.

User Orientation:

- ➢ Through Library Publication (Know your library, Library: A Brief Profile)
- ➢ Presentation through lecture to the new members
- ➢ Hands on training to search e-journals, e-books in digital library
- ➢ May I help you service is rendered to user for any query, as and when required

Assistance in searching Databases:

- ➢ Assistance to the users is available in digital library in searching and downloading the resources as per their requirements
- ➢ List of URL of e-journals is available in digital library
- ➢ Library Publication: "Know Your Library" in order to help the users to search the resources
  * INFLIBNET/IUC facilities: NA

4.2.8. Provide details on the annual library budget and the amount spent for purchasing new Books and journals.

Central Library expenditure on Books:-

Year	No. of books (vols.) & Accession No.	Amount spent (Rs. in lacs)
2015-2016	2130 (31141 to 33271)	7.97
2014-2015	1766 (29374 to 31140)	9.69
2013-2014	2653 (26720 to 29373)	11.13
2012-2013	1241 (25478 to 26719)	6.90
2011-2012	933 (24544 to 25477) +1892 (B27707 to B29599) 2825	9.79

Central Library expenditure on print and online Journals:- (National & International):-

Year	No. of Journals (print+online)	Amount spent (Rs. in lacs)
2015-2016	179+4136	9.51
2014-2015	179+4136	8.79
2013-2014	164+4136	9.94
2012-2013	160+4136	7.10
2011-2012	64+4136	5.98

Central Library expenditure on furniture, equipments, maintenance on software and contingencies:-

Year		Amount spent (Rs. in lacs)
2015-2016		3.69
2014-2015		29.61
2013-2014		1.03
2012-2013		4.15
2011-2012		2.74

DONATED BOOKS

Year	Donated by	No. of books donated	Acc. No.	Closing balance
2012-2013	Dr. D. K. Bhattacharya	35	D1 – D35	
	Dr. Debjani Sengupta	09	D36 – D44	
	Mr. Patit Paban Paira	16	D45 – D59	
	Dr. D. N. Banerjee	08	D60 – D67	
	Mr. Dipak Majumder	03	D68 – D70	
	Prof. B. B. Paira	03	D71 – D73	
	Mr. Prabeen Chand	05	D74 – D78	
	Mr. Paritosh Kumar Sarkar	10	D79 – D86; D91 – D92	
	Dr. S. K. Mukhopadhyay	04	D87 – D90	
2013 - 2014	Dr. S. K. Biswas	127	D95 – D221	
	Dr. Sobhen Roy	51	D222 – D272	
	Ms. Priya Bhartia	09	D273 – D281	
2014 -2015	NIL			
2015 - 2016	Prof B. B. Paira	170	D282 – D419; D514 – D515; D548 – D576; D635	
	Mr. Dipak Majumder	13	D420 – D432	
	Prof. B. R. Maity	66	D433 – D497	
	Ms. Bipasa Basu	28	D498 – D513; D516 – D527	
	Mr. Rohit Sharma	05	D528 – D532	
	Ms. Rumela Bhadra	13	D535 – D547	

	Ms. Subhra Banerjee	01	D533	
	Ms. Moumita Sen	01	D534	
	Prof. Alok Kumar Ghosh	58	D577 – D634	
	Mr. Probir Roy	03	D636 – D639	

TEQIP

Year	No of books present	No. of books purchased	Acc. No.	Amount spend for academic year Rs.	Total amount spend Rs.
2014-2015	69	69	T1 – T69	346213/-	

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.

Library gets its feedback through student's satisfaction survey. Attempts are being made to implement the corrective measures by the library. Further indirect feedback is also received through the Complaint and Suggestion Box. Library analyzes such suggestions/complaints which are placed in the Library Committee meeting for betterment of library services. The visitors record their remarks in the Visitors' Book.

4.2.10. List the infrastructural development of the library over the last four years.

➢ Shifting of the library from old campus to new campus
➢ Seating capacity increased.
➢ Modern lighting system introduced
➢ Antitheft solution installed
➢ Digital library and development of Institutional Repository
➢ New Issue / return system
➢ Loose Journals issues display rack
➢ Current list of publication of the different publishers' and bibliographies displayed.
➢ New arrival of books are on display for ten days before circulation.
➢ CCTV cameras installed in different corners of the library as security measure
➢ 20 work stations are available for searching e- books ,e-databases and e-journals.
➢ 10 Head phones are in use to access NPTEL and other video programmes
➢ All Departments have Departmental Libraries which are connected through OPAC. Central library transfers respective books to the departments periodically to ensure access to the concerned faculty.
➢ Fire preventive system is installed.
➢ IP phones are available in the library.
➢ New bag counter is provided
➢ Wi-Fi enabled reading hall
➢ ERP System introduced.

4.2.11.Did the library organize workshop/s for students, teachers, non-teaching staff of the College to facilitate better Library usage?

➢ Library conduct orientation programmes for the students every year
➢ Information literacy programmes are taken to provide easy access to the digital resources
➢ In-house Power point presentations are given to the studentsregarding the facilities of the library
➢ Library has organized a seminar on D-space and koha –open source software for Digital library and library management on 3rd February,2016. 135 participants took part in the Seminar
➢ Library also organizes Book exhibitions for their users

Workshop /seminar attended by the library staff (2011-2016)

NAME	COURSE/WORKSHOP/SEMINAR	YEAR
Dr. B.B.Das	Acted as resource person in the refresher courses of Library and Information Science conducted by JU and CU	2011-2015
Dr. B.B.Das	Acted as chairperson in the International seminar on Koha	2016
Dr. B.B.Das	Guiding Research Scholars of the University	2011-2015
Dr. B.B.Das	Guest faculty in the department of LIS at the University level	2011-2015
Dr. B.B.Das	Acted as coordinator in the seminar on D-space and Koha organized by Heritage Institute of Technology, Kolkata	2016
Ms. S. Banerjee Mr. R. Adhya	Participated in the International seminar on Koha	2016
Ms. S. Banerjee Mr. M. K. Maiti Ms. M. Sen	Participated in the staff development programme organized by Heritage Institute of Technology, Kolkata	2012
Ms. S. Banerjee Mr. M. K.Maiti	Participated in the seminar /workshop organized by Informatics	2013
Ms. S. Banerjee Mr. M. K. Maiti Ms. M. Sen Ms. S. Mukherjee Mr. R. Adhya Mr. T. Chakraborty	Participated in the seminar /workshop organized by Informatics	2014
Ms. S. Banerjee	Acted as Joint Coordinator in the seminar on D-space and Koha organized by Heritage Institute of Technology, Kolkata.	2016

Ms. S. Banerjee Mr. N. Bhattacharya Mr. S. Karikar Mr. M. K. Maiti Ms. M. Sen Ms. S. Mukherjee Mr. R. Adhya Mr. T. Chakraborty	Participated in the seminar on D-space and Koha organized by Heritage Institute of Technology, Kolkata.	2016

- ➢ Acted as resource person in the refresher courses of Library and Information Science conducted by JU and CU
- ➢ Acted as chairperson in the International seminar on Koha
- ➢ Guiding Research Scholars of the University
- ➢ Guest faculty in the department of LIS at the University level
- ➢ Participated in the International seminar on Koha
- ➢ Participated in the staff development programme
- ➢ Participated in the seminar of BCL
- ➢ Participated in the seminar /workshop organized by Informatics
- ➢ Participated in the workshop organized by Libsys etc.

4.3 IT Infrastructure

4.3.1 Does the College have a comprehensive IT policy addressing standards on IT Service Management, Information Security, Network Security, Risk Management and Software Asset Management?

Yes. The following are the comprehensive IT policies.

IT Service Management

IT Service management is done by the System Department regularly. If any problem arises, they will attend and rectify the same.

Information Security

Information security is maintained by System Department by using firewall policies.

Network Security

Network security is controlled by network firewall. Users are assigned an ID and password that allows them access information and programs within their authority.

Risk Management

The system department identifies and prioritizes the risks followed by coordinated and economical application of resources to minimize, monitor, and control the probability and/or impact of unfortunate events or to maximize the realization of opportunities.

Software Asset Management (SAM)

The system department identifies, analyses the software needs, prepares the budget and submit to the Management. The Management, the Principal along with the Finance committee takes the decision and allocates budget to purchase the legal software. These are maintained by the System Administrar.

4.3.2 Give details of the College's computing facilities (hardware and software).

All the system at Heritage Institute of Technology is having minimum configuration of Intel Core 2Duo and above and yearly basis we replace the old system with new upgraded one.The details of systems procured since 2011 are given below.

Details of Computers Added since 2011:

Device Name	Model	DoP	System Configuration	Quantity	Price (Including Tax) in Rs.
Desktop Computer	Wipro	25.3.11	C2D Processor, 2GB RAM, 160GB HDD, Wipro 15.6" Monitor	200	4076800
	HCL	18.10.11	Core i3 processor, 2GB RAM, 500 GB HDD	100	2100000
	HCL	31.10.11	Core i3 processor, 2GB RAM, 500 GB HDD	150	3276000
	Assembled	29.2.12	Core i3 processor, 2GB RAM,500GB HDD, 18.5" LED Monitor	5	131414
	AMD Assembled	12.2.12	Athlon X2 processor, 2GB DDR3 RAM, 500GB HDD	5	18616
	Dell Vostro 460MT	22.3.12	Core i7 2nd gen processor, 500 GB HDD, 2GB DDR3 RAM	1	41600
	Dell Vostro	26.5.12	Core i7 2nd gen processor, 500 GB HDD, 2GB DDR3 RAM	1	41600
	Assembled	8.6.12	Core i3 processor,	1	25349
	Assembled	14.6.12	Core i3 processor,	1	25349
	HP pro 3330	23.7.12	Core i3 processor, 2GB RAM, 500 GB HDD	200	4095000
	Dell 660S	15.3.13	Core i3 processor, 2GB RAM, 500 GB HDD. 19" LED Monitor	3	89884
Desktop Computer	HP Compaq Pro 4300	31.1.13	Core i3 processor, 4GB RAM, 500 GB HDD. 19" LED Monitor	170	2927925
	Assembled	25.3.13	Core i3 processor, 4GB	30	741468

Device Name	Model	DoP	System Configuration	Quantity	Price (Including Tax) in Rs.
			RAM, 500 GB HDD. 19" LED Monitor		
	Assembled	29.3.13	Core i7 processor, 8GB RAM, 2TB HDD. 19" LED Monitor	2	85124
	Dell 3010	25.6.13	core i3 3rd generation processor, Intel h61 MB, 4GB DDR3 RAM, 500GB HDD, 18.5" LED Monitor	40	528000
	Assembled	22.11.13	core i5 3rd generation processor,Intel D75ML K MB, 8GB DDR3 RAM, 500GB HDD	2	64900
	Assembled	22.11.13	core i5 3rd generation processor,Gigabyte H61 WW MB, 4GB DDR3 RAM, 500GB HDD	14	330960
	HP 202 G1	24.3.14	core i3 3rd generation processor, Intel h61 MB, 2GB DDR3 RAM, 500GB HDD, 18.5" LED Monitor	200	6289500
	Lenovo	28.4.14	core i5 3rd generation processor,Lenovo MB, 4GB DDR3 RAM, 1TB HDD, 18.5" LED Monitor	2	104475
	Assembled	14.8.14	core i3 4th generation processor,Gigabyte H81M-S1 MB, 4GB DDR3 RAM, 500GB HDD	80	1504400
	HP 280G1M	23.7.15	core i3 4rd generation processor,HP MB, 4GB DDR3 RAM, 500 GB HDD, 18.5" LED Monitor	160	4368000
Desktop Computer	Dell 3010	25.6.13	Intel Core i3 3rd generation processor, Intel h61 MB, 4GB DDR3 RAM, 500GB HDD, 18.5" LED Monitor	40	528000
	Assembled	22.11.13	Intel Core i5 3rd generation processor,Intel D75ML K MB, 8GB DDR3 RAM, 500GB HDD	2	64900
	Assembled	22.11.1	Intel Core i5 3rd	14	330960

Device Name	Model	DoP	System Configuration	Quantity	Price (Including Tax) in Rs.
		3	generation processor,Gigabyte H61 WW MB, 4GB DDR3 RAM, 500GB HDD		
	HP 202 G1	24.3.14	Intel Core i3 3rd generation processor, Intel h61 MB, 2GB DDR3 RAM, 500GB HDD, 18.5" LED Monitor	200	6289500
	Lenovo	28.4.14	Intel Core i5 3rd generation processor,Lenovo MB, 4GB DDR3 RAM, 1TB HDD, 18.5" LED Monitor	2	104475
	Assembled	14.8.14	Intel Core i3 4th generation processor,Gigabyte H81M-S1 MB, 4GB DDR3 RAM, 500GB HDD	80	1504400
	HP 280G1M	23.7.15	Intel Core i3 4th generation Processor, HP MB, 4GB DDR3 RAM, 500 GB HDD, 18.5" LED Monitor	160	4348000
Server Computer	HP ML10	12.3.14	Intel Xeon 4core Processor, 24GB RAM, 2TB HDD, 18.5" TFT	1	76150
	IBM	21.5.14	Intel Xeon quadcore Processor, 16GB RAM, 2TB HDD	1	84000
	IBM X3300	6.1.15	Intel Xeon quadcore Processor, 16GB RAM, 2TB HDD, 18.5" TFT	1	760000
	X3400	22.3.12	Intel Xeon Quad core Processor, 8GB RAM, 300GB HDD18.5: TFT	1	151200
	HP ML10	12.3.14	Intel Xeon 4core Processor, 24GB RAM, 2TB HDD, 18.5" TFT	1	76150
	IBM X3100 M4	21.5.14	Intel Xeon quadcore Processor, 16GB RAM, 2TB HDD	1	84000
	IBM X3300	6.1.15	Intel Xeon quadcore Processor, 16GB RAM, 2TB HDD, 18.5" TFT	1	760000

Details of Printers added since 2011

Model	DoP	Quantity	Price (Rs.) (Including Tax)
HP 2050 DJ PRINTER	19.04.11	1	3744
Canon LBP 2900B	19.04.11	1	5616
Canon LBP 2900B	13.08.11	1	5616
HP 5235 Printer	13.08.11	1	17940
Canon LBP 2900B	8.9.11	1	5616
HP Desk jet Printer	8.9.11	1	3744
Canon LBP 2900B	26.9.11	1	5616
Canon LBP 2900B	18.10.11	1	5616
Canon LBP 2900B	25.10.11	1	5616
Canon LBP 2900B	29.11.11	1	5616
Canon LBP 2900B	17.1.12	2	11440
Canon LBP 2900B	31.1.12	3	17316
Canon LBP 2900B	15.3.12	2	11440
Canon LBP 2900B	20.3.12	1	5772
Canon LBP 2900B	20.4.12	1	5772
HP DJF2050 AI0 PRINTER	27.4.12	1	3692
Canon LBP 2900B	5.5.12	1	5772
HP DJ 4500 AI0 PRINTER	14.6.12	2	11336
Canon LBP 2900B	26.9.12	1	5772
HP LJ 1606DN	11.10.12	1	15704
Canon LBP 2900B	3.12.12	1	5772
Canon LBP 2900B	5.3.13	1	6448
HP 3525 DJ PRINTER	14.3.13	1	7455
HP 2515 PRINTER	19.3.13	1	4888
Canon LBP 2900B	30.5.13	1	7000
HP Deskjet 3515	15.6.13	1	6195
HP Deskjet 3525	15.6.13	1	7450
Canon LBP 2900B	1.7.13	1	7000
HP Deskjet 3515	1.7.13	1	6195
Canon LBP 2900B	10.7.13	1	7000
Canon LBP 2900B	21.8.13	1	7000
HP DJ7500 ALL IN ONE	26.11.13	1	19845
WEP LQ DSI 5235	31.12.13	2	39480
WEP LQ DSI 5235	31.12.13	2	39480
Canon LBP 2900B	25.2.14	1	7000
Canon LBP 2900B	12.3.14	1	Printer
Canon LBP 2900B	8.4.14	2	13230
Canon LBP 2900B	11.4.14	1	7000

Model	DoP	Quantity	Price (Rs.) (Including Tax)
HP 3545 DJ Printer	24.4.14	1	6563
Canon LBP 2900B	24.4.14	2	13440
HP 3545 PRINTER	19.7.14	1	6300
HP LJ 400 Duplex	28.6.14	1	22533
Canon LBP 2900B	8.9.14	1	7000
Canon LBP 2900B	8.9.14	1	7000
HP 3545 PRINTER	7.11.14	1	6248
HP 3545 PRINTER	13.11.14	1	6248
Canon LBP 2900B	4.3.15	2	13440
Canon LBP 2900B	1.6.15	1	7000
Canon LBP 2900B	6.7.15	1	7000
Canon LBP 2900B	3.8.15	1	7000
Canon LBP 2900B	26.9.15	1	7000
Canon LBP 2900B	2.12.15	1	7000
Canon LBP 2900B	2.12.15	2	13440

➢ **Computer-student ratio:** 1:1 (as every student allotted a dedicated computer in their respective lab for their lab classes & project assignment)

➢ **Dedicated computing facility:** every faculty provided with dedicated computer as their respective desk.

➢ **LAN facility:** All the computers at our campus are connected with Gigabit LAN.

➢ **Wifi facility:** Every building at our campus and all the campus hostels are having WiFi facility.

➢ **Propriety software / Open source softwares:** The List of Softwares are given below.

✓ AutoCAD Suite ✓ ArcGIS 10.2 for desktop ✓ Syamntec Endpoint Antivirus 12.1 Campus Agreement ✓ Windows 7 32 and 64 bit ✓ Windows Server 2008 ✓ Windows 8.1 32 and 64 bit ✓ Microsoft Campus Licensing Agreement (ALL major Microsoft software/tools) ✓ PTC Creo ✓ Adobe CS4 & CS5 ✓ TCAD Synopsys ✓ Glide Prime ✓ STAAD Pro V8i & STAAD Foundation ✓ ETAP ✓ MD FEA Bundle plus MD ADAMS Bundle	✓ Xilinx ✓ Various open-source software such as Ubuntu OS, Mysql etc. ✓ Matlab ✓ PSpice ✓ NI LAB VIEW Premium suit ✓ Cadence University Bundle ✓ QUALNET 6.1 ✓ ANSYS Academic Advance ✓ Premium Local Guru(LocalG by B.Tech GURU) ✓ Campus Placement Preparation Material (Multi user online material for Communication skill, Interview skill, resume Building, soft skill)

> ➢ **Number of nodes/ computers with internet facility:** Total no. of computers with internet facility=1627

> ➢ **Any other:** All our college buildings and campus entry exit gates are protected with CCTV surveillance system. In case of power failure we provide power backup for all the computers at our campus through central ups system. We are having 2nos 80Kva, 1No 100Kva, 3nos 10Kva online UPS system installed by a very reputed international manufacturer.

4.3.3 What are the institutional plans and strategies for deploying and upgrading the IT infrastructure and associated facilities?

Our College as a policy maintains a regular infrastructure data base of computers and accessories. Periodically, the old systems are replaced with systems with an enhanced configuration. The old systems withdrawn are donated to NGO or to under privilege school. All Head of the Departments, Professors, and Assistant Professors have independent system each at their respective desks. Periodic review is done to see that latest systems are in use in the college by replacing the nonfunctioning or old systems.

(Configuration of PCs and servers procured since 2013 are given above 4.3.2)

4.3.4 Give details on access to online teaching and learning resources and other knowledge, and information provided to the staff and students for quality teaching, learning and research.

> ➢ INTRANET enable the latest information through NPTEL video & audio by eminent lecturer from IIT.
> ➢ Accessibility of the library is from 9 a.m. to 5-30 p.m.
> ➢ CDs and DVDs are available on various subjects in the library.
> ➢ LCD projectors are available for power point presentation and online presentation.
> ➢ Video conferencing felicity.
> ➢ Language Lab e-resources.

4.3.5 Give details on the ICT enabled classrooms/learning spaces available within the College and how they are utilized for enhancing the quality of teaching and learning.

> ➢ E-learning room is equipped with a double screen board for enhancing the quality of teaching and learning.
> ➢ Language lab classes are conducted for staff and students to enhance communication skills.
> ➢ QEEE program is resource for knowledge dissemination.

4.3.6 How are the faculty facilitated to prepare computer aided teaching-learning materials?

> ➢ Computers systems are available in all departments.

➢ Training is given to the faculty members in the use of computer operation.

➢ Computer Department helps other faculty members in preparing Power point presentation for presenting in the seminars, conferences and workshops.

➢ Library preserves important articles published journals and newspaper for the use of faculty and students.

4.3.7 How are the computers and their accessories maintained? (AMC, etc.)

Computers and their accessories are maintained by regular technical staff. A system Administrator and three System Support Executive look after the maintenance work. Consumables, spares and accessories are purchased as and when required. Apart from this, AMC is given to a reputed concern for all the Desktops & Servers maintenance. Networking such as structured cabling & CCTV surveillances are carried out by reputed vendors. In addition, for power and other miscellaneous work we have technicians at our maintenance department.

4.3.8 Does the College avail of the National Knowledge Network connectivity directly or through the affiliating University? If so, what are the services availed of?

No, National knowledge Network connectivity is not availed directly or through the affiliating University.

4.3.9 Provide details on the provision made in the annual budget for update, deployment and maintenance of the computers in the College?

Amount (Rs.)

S. No.	Particulars	2011-12	2012-13	2013-14	2014-15
1	Update, deployment & maintenance of Computers	6,00,000	9,00,000	10,00,000	11,00,000

4.4 Maintenance of Campus facilities

4.4.1 Does the college have an estate office/designated officer for overseeing maintenance of buildings, class rooms and laboratories? If Yes, mention a few campus specific initiatives undertaken to improve the physical ambience.

Yes. A designated Manager, Mr. Debashis Chatterjee has been appointed to look after the maintenance of the buildings, classrooms, workshops, laboratories etc. All works related to electrical, plumbing and sanitary & other utility services are under his jurisdiction & is undertaken with the help of efficient personnel & agencies employed to undertake periodic supervision.

The list of works for regular up keep are as follows:

- Conversion of existing lighting system to energy saving L.E.D
- Conversion & up keep of all existing plumbing system to prevent water loss in the form of leakages.
- Upkeep of all electrical equipment to prevent excess energy loss & short circuits
- Installation, monitoring & upkeep of energy management system.
- Installation, monitoring & upkeep of automated water level controllers with solenoid valves to prevent excessive water loss due to overflow in water tanks.

All the maintenance activities are controlled by Computerised Maintenance Management System (CMMS).

Landscape & Greenery

- Plenty of green & soft surface all-round the campus.
- Minimisation of hard surfaces with introduction of paver block system for driveways & walkways.
- Lawns, playgrounds used for multifarious activities
- Regular plantation of new types of trees & plants to enhance beautifications
- Water from recycled waste water from S.T.P. used for gardening

Fire Protection system:

- Includes centralised fire pump room with water reservoir of adequate capacity & ring main system for Fire Hydrant
- Sprinklers in all fire sensitive zones
- Efficient Heat & smoke detectors & manual call points at all fire sensitive zones
- Fire detection panels in designated zones
- Fire extinguishers with suitable ratings placed at strategic points.
- Efficient exit points in all buildings

4.4.2: Does the college appoint staff for maintenance and repair? If not, how are the infrastructure facilities, services and equipment maintained? Give details.

Yes maintenance staff is recruited for regular services.

- Regular electrical maintenance is looked after by in-house technicians
- Carpentry, fabrication, plumbing & other minor maintenance works is also done through in-house technicians
- Lift, Air-conditioning, Cooling towers, solar panels, R.O. Plant etc are under AMC with the respective agencies.

4.5 SWOC Ananlysis

Strengths
- Sufficient rooms and facilities are available for students and stuffs to satisfy academic, research and extracurricular requirements.

➢ State-of-the-art library with huge number of books, online video lectures and reputed international journals.
➢ Sufficient number of highly equipped laboratories to provide academic and research support to students and faculty.

Weaknesses

➢ Lack of adequate number of seats in boys' hostel.
➢ Lack of advanced research laboratories in departments.

Opportunities

➢ Expansion of research and development laboratories to meet the global demands.
➢ Expansion of renewable energy resources to provide electricity in the whole campus.
➢ Construction of new building to accommodate growing number of students.

Challenges

➢ Rising cost of research equipment, construction of new buildings and required infrastructure to generate energy from renewable energy resources.

D.5 CRITERION V: <u>Student Support and Progression</u>

5.1 Student Mentoring and Support

5.1.1 Does the College have an independent system for student support and mentoring? If yes, what are its structural and functional characteristics?

Yes, HIT-K has an independent student support system for mentoring students since inception of the college.

Functional Characteristics:

➢ Class teacher system has been established from of the college.
➢ Each faculty member is allotted to monitor in academic curricular and co-curricular activities.
➢ Two meetings are conducted in a year with students. On various students issues like course curricular, teaching**
➢ The class-teacher conducts the parent meetings to review students' academic progress with parents and suggest them to improve student academic performance/ learning aspects.
➢ Meetings with the parents of students staying in hostel on the day of hostel admission.
➢ Encouraging students to organize and participate in cultural programmes both within the college and outside the campus.
➢ Most of the students, who aspire to take higher education in our institution come from social and economically weaker section of the society. Keeping all these factors in view the institution established extending its services in higher education.
➢ The class teacher ensures, that his class students are aware of all the facilities provided in the college such as library, net facility, computer centre, placement cell activity etc.
➢ Instilling values of discipline, punctuality, regularity, confidence through one to one counseling, seminars by students, field trips etc.
➢ Arranging medical inspection for all students and providing medical facilities.

5.1.2 What provisions exist for academic mentoring apart from class room work?

The senior faculty provides necessary academic mentoring to students with queries.

➢ The faculty members act as mentors and facilitator for the hostel students.
➢ The college appoints the faculty members as mentors and facilitators for the boys and girls hostels. They monitor the academic and personal dimensions of the students and provide necessary counsel and offer academic assistance to those who need.

- Queries regarding certificate courses, add-on courses are answered and information provided.
- Mentors also provide necessary information to students on academic and non-academic programmes.
- The members of the departments interact with parents on all working days.
- The class teacher system is an efficient system that monitors student progress. Each teacher in the department is allotted a class of student as advisors. The class teacher meets ones a week formally and the students share their academic struggles and areas of concerns with their teacher (mentor/ facilitator). High achievers/ advanced learners encouraged to participate in various competitions both in house and outside.
- The mentor recommends the deserving students for different scholarships.
- Departments organize parent-teacher meet ones a year to develop rapport with the parents and keep them informed of the academic progress to their children. Parents have free access to approach any faculty member during working hours of the college.

5.1.3 Does the College provide personal enhancement and development schemes for students? If yes, describe techniques employed e.g., career counseling, soft skill development, etc.

- Yes, the support system at HIT-K offers various avenues for wholesome development of the learner's professional, emotional and physical wellbeing and success.
- The career guidance and placement cell (CGPC) provides awareness to students about skills required in job market. Various skill development programmes are conducted on career opportunities such as soft skills, employment opportunities, etc.
- The college arranges yoga sessions with a trained yoga master which enables students to relax and develop mental stability.
- The guest lectures and awareness programmes on communication and personality development are organized.
- The college has links with external agencies to which the final year students go for projects. This gives the students awareness about the job market and their expectations.
- The college brings out the talents of the students and enable them to develop their creative and organizing skills through intra, inter departmental and inter collegiate programmes.
- The college library provides a rich variety of books on personality development and leadership.

5.1.4 Does the College publish its updated prospectus and handbook annually? If yes, what are the activities / information included / provided to students through these documents? Is there a provision for online access?

Yes. The prospectus cum handbook of the college is updated annually and is given to the students at the time of admission. It is also available in the college website. It consists of various details regarding functions of the college and course requirements. It contains the history of the college, achievements, administration, list of department wise faculty, programme curriculum, rules and regulations.

The handbook also includes the college calendar that gives information about holidays, college functions, tests and examinations date. This is ready reference for students. This hand book enables students to approach the respective offices according to their need.

5.1.5 Specify the type and number of scholarships / freeships given to students (UG/PG/M.Phil/Ph.D./Diploma/others in tabular form) by the College Management during the last four years. Indicate whether the financial aid was available on time.

The institute offers tuition fees waiver/ free ships for financially backward meritorious students. Table below shows the number of students received free ships from institute during last four academic year:

SL.No	Academic Year	Semester	Percentage Free ships	No. of Students received Free ships
1	2015-16	Odd	100%	115
			75%	26
			50%	34
			25%	11
2	2014-15	Even	100%	98
			75%	12
			50%	52
			25%	13
3	2014-15	Odd	100%	92
			75%	30
			50%	27
			25%	23
4	2013-14	Even	100%	47
			75%	28
			50%	66
			25%	31
5	2013-14	Odd	100%	79
			75%	49
			50%	46
			25%	07
6	2012-13	Even	100%	74
			75%	33

SL.No	Academic Year	Semester	Percentage Free ships	No. of Students received Free ships
			50%	36
			25%	11
7	2012-13	Odd	100%	81
			75%	21
			50%	21
			25%	12

5.1.6 What percentage of students receives financial assistance from state government, central government and other national agencies? (e.g., Kishore Vaigyanik Protsahan Yojana (KVPY), SN Bose Fellow, etc.)

Tables below show the number of Under graduate and Post graduate students who received financial assistance from the state government.

Number of Under Graduate Students Who Availed Financial Assistance From State Government For Last Six Years								
Sl. No	Course	Year	2014-15	2013-14	2012-13	2011-12	2010-11	2009-10
1.	B.Tech (CSE)	I	6	3	2	8	11	4
		II	1	8	5	4	3	6
		III	6	0	3	3	8	6
		IV	4	5	1	3	8	3
2.	B.Tech (ECE)	I	4	2	7	18	8	8
		II	2	5	9	9	8	11
		III	1	6	11	10	11	7
		IV	6	5	9	7	12	8
3.	B.Tech (AEIE)	I	0	0	1	6	7	2
		II	0	1	8	8	4	2
		III	2	11	8	3	5	2
		IV	7	7	3	1	4	5
4.	B.Tech (IT)	I	1	0	8	5	0	0
		II	0	8	3	3	2	4
		III	2	3	2	2	7	4
		IV	6	0	4	3	5	9
5.	B.Tech (CHE)	I	0	0	0	5	2	2
		II	0	0	2	3	3	5
		III	0	4	5	2	3	2
		IV	3	0	5	0	2	0
5.	B.Tech (BT)	I	0	0	1	5	4	4
		II	1	0	2	3	3	0
		III	3	0	2	2	5	2
		IV	0	2	2	0	5	3
6.	B.Tech (ME)	I	1	1	5	4	-	-
		II	5	1	6	-	-	-
		III	3	3	-	-	-	-
		IV	7	-	-	-	-	-

Number of Under Graduate Students Who Availed Financial Assistance From State Government For Last Six Years								
Sl. No	Course	Year	2014-15	2013-14	2012-13	2011-12	2010-11	2009-10
7.	B.Tech (CE)	I	2	2	4	8	-	-
		II	3	5	6	-	-	-
		III	7	2	-	-	-	-
		IV	4	-	-	-	-	-
9.	B.Tech (EE)	I	4	2	8	-	-	-
		II	1	0	-	-	-	-
		III	5	-	-	-	-	-
		IV	-	-	-	-	-	-
		Totals=	97	86	132	125	130	99

Number of Post Graduate Students Who Availed Financial Assistance From State Govt. For Last Six Years								
Sl. No	Course	Year	2014-15	2013-14	2012-13	2011-12	2010-11	2009-10
1.	M.Tech (CSE)	I	2	1	2	3	-	-
		II	0	2	3	0	-	-
2.	M.Tech (ECE)	I	1	0	1	1	-	-
		II	0	1	2	0	-	-
3.	M.Tech (AEIE)	I	3	0	0	0	2	4
		II	0	1	0	0	4	3
4.	M.Tech (IT)	I	0	0	1	-	-	-
		II	0	0	2	-	-	-
		Totals=	6	5	11	4	6	7

5.1.7 Does the College have an International Student Cell to cater to the needs of foreign students? If so, what measures have been taken to attract foreign students?

No, Institute does not have an International Student Cell.

5.1.8 What types of support services are available for

Overseas students:-

➢ Institute does not have overseas student right now.

Physically challenged / differently abled students

➢ Institutes and State Governments provide necessary financial support to these students. Lifts are provided in each building of the College, especially for physically challenged students. Toilets are modified to cater to their needs.

SC/ST, OBC and economically weaker sections

➢ Financial Assistance is provided to the students who participate in various competitions/conferences in India and abroad. (a) Reimbursement of Registration

Fee, transportation fee for conferences /competitions (b) Encouragement is provided to the students who participate in National inter-college and National sports competitions.

- Institutes offers tuition fees waiver/ free ships for financially backward meritorious students.
- Book bank facility is available for all the students.
- Remedial classes are provided for sluggish learners.
- Summer training and industry visits are arranged by the institute. The institute bears the cost these.

Students to participate in various competitions/ conferences in India and abroad

- Travel allowance and special incentives are paid to students if they present technical papers at conferences.
- Encouragement is provided to the students who participate in inter-college and National sports competitions.

Health Centre, Health Insurance etc.

- Health Centre is available in College during college hours on all working days. One doctor and one nurse are available in the health centre during all the working days.
- Transportation Facility is available in case of emergency
- Institute has a MoU with Ruby General Hospital for emergency medical assistance both for students and staffs.
- Each student is covered by a medical insurance upto Rs. 100000/-.
- Special care is provided for Hostel Students.

Skill Development (spoken English, computer literacy, etc.,)

- English Communication Labs are provided to improve students, communication skills, presentation skills, verbal skills etc, as compulsory courses.
- Infosys "CAMPUS-CONNECT" training is provided to every student by subject experts from Infosys to improve their computer literacy.
- Training and placement cell organizes number of pre-placement talks, expert talk by HR Personnel etc.
- Soft skills courses are introduced in the curriculums which are compulsory for all students. Each course has 2 periods/ week and one credit for evaluation.

Performance enhancement for slow learners / students who are at risk of failure and dropouts

- Remedial Classes are conducted for slow learners and lateral entry students. Teachers are allotted to help such students.
- Remedial Classes are arranged for lateral entry students separately on Saturdays as there is no regular class on Saturdays as well as during Puja vacations.

Exposure of students to other institutions of higher learning/ corporates/business houses, etc.

➢ Institutes provides all kind of support to the student to do their internships, summer training in corporate/business houses
➢ Students are encouraged to present technical papers at other institutions. Records are available in
➢ The institute signed an MoU with New Jersey Institute of Technology (NJIT) for a student exchange programme under which the first batch of 20 students had a 6-week training programme at NJIT during 2008. The seventh batch of students underwent the training programme in 2015. It has also signed an MoU with the College of Natural science, Sungkyunkwan University. Negotiations are on with the University of Sussex for academic collaborations

Publication of student magazines

➢ Students publish a souvenir after every technical function each year. College extends financial support.
➢ News letter is published quarterly in a year. It covers achievements, participation in conferences, awards and prizes and list of prize winners of students.

5.1.9 Does the College provide guidance / coaching classes for Civil Services, Defense Services, NET/SLET and any other competitive examinations? If yes, what is the outcome?

Yes.

The institute provides comprehensive coaching classes for different aspects which serve the future needs of various competitive examinations. The aspects which are covered are as follows:

➢ Quantitative Aptitudes
➢ Reasoning
➢ Verbal Skills
➢ Personality Development
➢ Group discussions
➢ Interview Skills (Mock Interviews).

Extra classes are conducted both for technical subjects and to develop communication skills for the slow learners.

Many students appear in GATE examination. One student of Chemical Engineering Department got 3rd rank in the year 2014. Several students from Bio-technology, Computer Science & Engineering, Electronics & communication and Applied

Electronics and Instrumentation Departments of our institute got All India Ranks between 10 to 100 in the year 2014 and 2013.

Several students appear in CAT examination, and get percentile above 90. One student from Bio-technology Department got 99.26 percentile in 2014. Detailed information about the success of our students in different all India examination is listed in the Information Brochure, Quarterly Newsletter and Website of the institute.

5.1.10 Mention the policies of the College for enhancing student participation in sports and extracurricular activities through strategies such as

➢ Additional academic support, flexibility in examinations

- HIT-K college promotes participation in sports through flexibility in admission i.e. fees payment, Mess, attendance requirements.
- The students who have good track record in sports are given flexibility in admissions of their choice.
- Special classes are conducted to sports students.

➢ Special dietary requirements, sports uniform and materials

- Special diet is provided to sports students at the time of coaching and training period.
- College provides sports kits.
- Provision is also given to write retests and assignments.

➢ Any other:

- Every year sports and games competitions are organized for college. There are many prizes and shields for boys and girls including teachers.
- There is an elected Students' Council constituted with sub-committees like Cultural, Academic, Magazine, Games and Sports & various Clubs to encourage and organize various co-curricular activities.
- The Annual Cultural Festival - ECLECIA and Annual Technical Fest - DAKSHH are organised with much fanfare and enthusiasm. The Centre for Student Affairs (CSA) has been established for coordination and supervision of all students' activities.
- Photography, Film and Drama Club: Prabhasvana, under the aegis of the Students' Council.
- Social Awareness & Community Service Club (SPARSH).
- Rotaract Club of the Institute (Udaan) under the parent body Rotary Club of Mahanagar has been established, which is very active.

- A robotics society - iRobotiX: To encourage activities pertaining to robotics and participation by HIT-K students in robotics competition, both within and outside the campus.
- The Institute's Foundation Day, which falls on Teachers' Day (5th September), is celebrated with enthusiasm and reverence to the teaching fraternity.
- Fresher's Welcome to induct the new-comers to the Heritage family and Farewell ceremony for the outgoing students.

5.1.11 Does the College have an institutionalized mechanism for placement of its students? What services are provided to help students identify job opportunities, prepare themselves for interview, and develop entrepreneurship skills?

We have a Career Counseling and Placement cell to help students aspire for their careers. The Cell gives students Placement Orientation in the beginning of 7th.Semester to help them understand the industry and market requirements. It gives them all the information required and the parameters considered by the industry before hand to prepare accordingly.

The Placement Cell provides

- Leadership talks
- Soft skills Training
- Quantitative Aptitude Training
- Technical Training
- ON-LINE aptitude tests practice
- TCS and other software companies on-line mock tests
- B.TECH guru test practice with feedback and correctional classes
- Infosys campus connect programme

The Placement Cell orients students about Core, IT Industry, GATE & CAT Exams, GRE, TOFEL and IELTS, AMCAT Exams and various other competitive Exams. It ensures communication to every student every week of various events happening in other colleges regularly. It also shares links of previous year placement papers to help students to prepare before Campus hiring of each company.

Campus Recruitment Training- It has sufficient infrastructural faciltities and experienced personnel to cater to the training and placement requirements of students.

Training on Soft Skills – Ardent, IIATCA, SIMOCO, Globesyn and CMC are our training partners and they train students for the Campus recruitments along with our in "house training faculty". The College has Entrepreneurship Development Cell, initially sponsored by AICTE, which organizes awareness camps every year for students on Entrepreneurship.

'INFOSYS CAMPUS CONNECT FOUNDATION PROGRAM' & SOFT SKILLS PROGRAM: Our students have the facility to be certified by INFOSYS CAMPUS CONNECT, an industry-academia initiative. This training is to bridge the gap between the corporate and academia and help students understand the real time issues of the industry. Infosys Foundation Program was rolled out to the students by the CSE/IT Department of the college (in house faculty – trained at Infosys under the Faculty Development Program) to improve their technical skills while the soft skills program was rolled out by Infosys to enhance the student's soft skills.

Aspiring Minds - AMCAT: An aptitude test by AMCAT is conducted which helps the students to get entry level jobs in various sectors.

5.1.12 Give the number of students selected during campus interviews by different employers (list the employers and the number of companies who visited the campus annually for the last four years).

Placements for the year 2010-11, 2011-12, 2012-13, 2013-14 and 2014-15 are shown below:

COMPANY WISE RECRUITMENT DETAILS 2010-11

Sl No.	Company	Rs. P.a CTC	Total
1	BOCI India Limited	3.00	2
2	Paharpur Cooling Towers	2.16	3
3	Infosys Technologies Limited	3.50	231
4	Wipro Technologies Limited	3.50	67
5	ITC Infotech Limited	3.30	18
6	Philips Carbon Black	3.50	3
7	Haldia Petrochemicals Ltd	4.86	2
8	Capgemini	3.15	50
9	Tech Mahindra & Mahindra Satyam	3.08	10
10	SYNTEL	2.50	3
11	Wipro Infotech Ltd	3.00	2
12	LnT Infotech	2.90	2
13	Himadri Chemicals & Industries Ltd.	2.80	2
14	The Jute Corporation of India Ltd	2.00	1
15	NIIT Technologies Limited	2.80	1
16	Dena Bank	1.65	1
17	IERCEM	1.40	2
18	JIS Engineering College	1.20	4
19	Aryaabhatta Engineering College	1.30	1
20	Supreme Knowledge Foundation	1.80	1
21	Techno India Durgapur	1.20	1
22	Heritage Institute of Technology	1.30	2
23	Dream Institutre of Technology	1.20	1
24	Voda Fone	1.30	2

25	St. Thomas Engineering College	1.20	**1**
26	Assam Don Bosco University	1.25	**1**
	Total		**414**

COMPANY WISE RECRUITMENT DETAILS 2011-12

Sl No.	Company	Rs. P.a CTC	Total
1	Infosys Technologies Limited	3.50	**302**
2	Wipro Technologies Limited	3.50	**103**
3	ITC Infotech India Limited	3.30	**4**
4	BOC India Limited	2.76	**3**
5	Syntel Limited	2.95	**3**
6	Swastic Refinery Pvt. Ltd.	2.04	**1**
7	Voith Paper Technology (India) Limited	3.60	**2**
8	Cheers Interactive	2.50	**1**
9	Global Adsorbent	1.20	**1**
10	Aluminus Software Pvt Ltd	1.50	**1**
11	Blooming Diagnostic & Impex Pvt Ltd	1.30	**1**
12	Chromous Biotech - bde	1.25	**1**
13	ION Exchange India Pvt Ltd	1.60	**1**
14	Capgemini	1.20	**1**
15	Ideo Technological Resources Ltd	1.40	**1**
16	Nomura Research Institute Fin. Tech. I Pvt Ltd.	1.75	**1**
17	Quest Tech Pvt Ltd	1.33	**1**
18	Camelia Group	1.65	**2**
19	BITM Shantineketan	1.75	**1**
20	Jharkhand Steel Plant	1.80	**1**
21	Dream Inst. Of Technology	1.20	**2**
22	Sikkim Manipal Univ.	1.30	**1**
23	MIST	1.25	**1**
24	UBI	1.20	**1**
25	IITP	1.30	**1**
26	IIT Kharagpur	1.20	**1**
27	Kalayani Univ	2.00	**1**
28	MIT Singhur	1.80	**1**
29	Budge Budge Inst. Tech.	1.50	**2**
30	Chandrakona Inst. College	1.30	**4**
31	Techno India	1.65	**1**
32	Bengal College of Engg Durgapur	1.70	**3**
33	Supreme Lodha	1.30	**1**
34	Heritage Institute of Technology	1.50	**1**
35	ICICI Bank	1.35	**1**
36	Raja Bazar Science College	1.20	**1**
	Total		**455**

COMPANY WISE RECRUITMENT DETAILS 2012-13

Sl No.	Company	Rs. P.a CTC	Total
1	Tata Consultancy Services Limited	3.16	**89**
2	BOC India Limited	2.46	**4**
3	ITC Infotech India Limited	3.30	**8**
4	Nomura Research Inst.Fin.Tech. (I) Pvt. Ltd.	3.80	**8**
5	CAPGEMINI INDIA	3.05	**58**
6	Dynamic Digital Technology	4.23	**5**
7	Microsoft	16.00	**1**
8	Sanmar Engineering Technologies Ltd	3.06	**2**
9	Industrial Pumps & Motors Agencies	1.80	**1**
10	Philips Carbon Black Limited	3.06	**4**
11	Berger Paints India Limited	4.25	**2**
12	Edudigm Education Services Pvt. Ltd.	2.25	**3**
13	WIPRO BPO	2.00	**2**
14	Gujarat Fluorochemicals Ltd	2.40	**8**
15	Mallcom India Pvt. Ltd.	1.50	**8**
16	Vikram Solar	1.80	**2**
17	Star Cement Meghalaya Ltd.	2.64	**5**
18	YKZ Zip & Fasteners Pvt. Ltd.	2.25	**6**
19	Patton India	1.5	**3**
20	Celia Infotech Solutions Software Pvt. Ltd.	2.4	**8**
21	Secure Enersoft Ltd	2.20	**2**
22	Magnaj Innovations (Magna Group)	2.40	**1**
23	Alchem International Pvt. Ltd.	3.00	**2**
24	Shyam Sel	1.80	**2**
25	IBM	2.50	**1**
26	WT IT Solutions	2.00	**10**
27	GEN PACT	2.20	**2**
28	Birla Jute	3.00	**2**
29	Global Adsorbents	1.20	**2**
30	Institute of Applied Quality Management	1.80	**8**
31	Reinguss GMBH	1.50	**1**
32	IOCL	3.10	**1**
33	Linde	3.00	**1**
34	Inodada Isogen Ltd	1.80	**1**
35	Germitton Technology	2.05	**2**
36	Gargi Memorial	2.00	**1**
37	IXIA Technologies	1.80	**1**
38	Tech Mahindra	3.08	**6**
39	Keventer Agro Limited	2.50	**1**
40	HCL	1.80	**2**
41	Manikaran Power	2.25	**1**

Sl No.	Company	Rs. P.a CTC	Total
42	CTS	3.00	**3**
43	Infosys	3.50	**5**
44	IMT Gaziabad	2.05	**1**
45	Placed	-	**2**
46	ICICI Bank	1.35	**1**
47	BSEB	2.00	**1**
48	CGI	1.80	**1**
		Total	**285**

COMPANY WISE RECRUITMENT DETAILS 2013-14

Sl No.	Company	Rs. P.a CTC	Total
1	Wipro Technologies Limited (Exclusive)	3.50	**53**
2	Infosys Limited (Exclusive)	3.50	**171**
3	Polaris Networks (Dynamic Digital Technology)	5.50	**1**
4	Microsoft	16.00	**1**
5	Odessa Technologies	3.05	**3**
6	Capgemini	3.05	**35**
7	ITC Infotech	3.38	**5**
8	Odessa Technologies	3.05	**1**
9	Linde (India) Private Limited	2.76	**2**
10	Johnson Controls	3.00	**1**
11	Edudigm Education Services Pvt. Ltd.	3.25	**2**
12	UST Global	3.00	**10**
13	Va Tech Wabag Limited	3.55	**2**
14	Meditab Software Inc.	3.60	**1**
15	IBM	3.40	**6**
16	Berger Paints India Limited	4.50	**2**
17	IBM (Females)	2.20	**1**
18	Mendine Pharmaceuticals Pvt Ltd	2.74	**1**
19	Scholar@SAP Program with BITS PILANI	3.00	**1**
20	Cryobanks International India Private Ltd	1.65	**5**
21	Wacker Metroark Chemicals	4.00	**2**
22	TCS	3.00	**5**
23	TECH Mahindra	3.07	**19**
24	Thyrocare Technologies Limited	2.00	**2**
25	Haldia Petrochemicals Limited	5.00	**2**
26	Embee Software Private Limited	1.49	**1**
27	Voith paper Technology (India) Private Limited	3.00	**4**
28	L&T Infotech	3.00	**1**
29	Inox Air Products Ltd	3.50	**1**

Sl No.	Company	Rs. P.a CTC	Total
30	Steel Authority of India	1.28	**2**
31	IBM	3.40	**8**
32	Mendine Pharmaceuticals Pvt Ltd	1.44	**1**
33	Prime Focus	4.50	**1**
34	CGI	2.90	**1**
35	Mindtree	4.50	**1**
36	Codez	2.90	**1**
37	Accenture	4.50	**6**
		Total	**362**

COMPANY WISE RECRUITMENT DETAILS 2014-15

Sl No.	Company	Rs. P.a CTC	Total
1	Infosys Limited - Only (All B.Tech. & M.Tech)	3.25	193
2	Wipro Technologies Limited - Only (AEIE,CHE,CSE,ECE,MECH,IT&MCA)	3.25	101
3	Va Tech Wabag (AEIE,CHE,CIVIL,MECH)	3.50	5
4	ITC Infotech (CSE,ECE,IT)	3.30	13
5	Capgemini (B.T & M.T-CSE,ECE,IT,AEIE,MECH,CIVIL,MCA)	3.05	31
6	Tech Mahindra (ALL Streams & MCA)	3.07	40
7	Linde India Limited (CHEM)	5.00	2
8	Yodlee Infotech Private Limited (CSE,IT)	5.70	1
10	SAP Labs India (CSE,ECE,IT)	3.00	1
11	Persistent Systems Ltd, Nagpur (CSE,IT,MCA)	3.58	1
15	Dynamic Digital - Only (CSE,ECE,IT B.TECH. & M.TECH)	4.50	2
16	Bosch - Only (AEIE , ECE)	3.64	4
17	James Warren Tea Limited (MECH)	5.00	2
18	IBM (All B.Tech &M.Tech - Female)	3.15	2
19	Rene Impex Private Limited (AEIE, CHE, MECH)	2.40	2
20	Torrecid India Pvt Ltd (CHEM)	2.88	1
21	Paharpur Cooling Towers Limited(CHE,CIVIL,MECH)	3.60	2
22	GKB Rx Lens Pvt. Ltd. (AEIE & MECH)	3.00	4
23	Aakash Institute (All B.Tech & M.Tech)	6.00	1
24	Green Valley Industries Ltd (AEIE, CHE & MECH)	2.40	2
25	Berger Paints	4.20	1
26	Phillips Carbon Black Limited (CHEM)	5.00	6
27	Idea Cellular Limited (ECE)	3.50	1

Sl No.	Company	Rs. P.a CTC	Total
28	Xplorsoft Pvt. Ltd. (CSE, ECE, IT & MCA)	1.80	10
29	Tractors India (MECH)	3.24	1
30	STUP Consultants Pvt. Ltd. (CIVIL)	3.00	1
31	Birla Jute Mills Limited (MECH)	3.00	2
32	Voith Paper Technology (India) Private Limited (AEIE & MECH)	4.5	2
33	Ideal Group (CIVIL)	2.75	3
34	TCS	3.18	5
35	Ericsson India Global Services (ECE)	2.70	5
36	Thyrocare Technologies Ltd (AEIE BIO)	2.50	3
37	Alom Poly Extrusions Limited & Techno Electric	2.00	3
38	SRMB Group (Mech, CIVIL)	2.00	5
39	Premium Transmission Limited (MECH)	2.40	3
40	Techno Electric & Engineering Co. Ltd. (Only)	2.50	1
41	NRGtech Services Pvt Ltd (CHEM)	2.58	2
42	KEC International Limited - Domestic	3.50	1
43	KEC International Limited - International	7.00	1
44	Nividyne Systems Pvt. Ltd (B.Tech - All Streams)	1.10	1
45	Kutchina (Kitchen Solutions) (AEIE, ECE, MECH - MALE)	1.80	1
46	Star Cement (Civil)	2.20	4
47	Tata Steel	4.92	1
48	Mendine Lifecare Products Pvt. Ltd. (CHEM)	2.50	1
49	Vikram Solar Pvt Ltd (MECH & AEIE)	2.50	2
50	Rajwada Group	2.16	2
51	Vikram India Limited	2.40	1
52	Amazon (All B.Tech.)	3.50	1
53	Sky Scrappers Pvt. Ltd. (CIVIL)	1.80	5
54.	HiTech Systems & Services Limited (MECH, ECE, AEIE)	2.50	3
55.	Proconmag (Civil)	2.50	1
56.	Focus Academy for Career Enhancement (All B.Tech.)	2.64	2
57.	Patton India Limited	2.00	2
58.	SHV Energy Pvt Ltd.	3.40	1
59.	Overtop Marketing Pvt.Ltd	1.80	1
60.	M/S Trans Residency Pvt Ltd	1.80	1
61.	ITD Cementation	3.00	1
62.	Mani Group	2.50	1
63.	Techno Scientific Co.	2.50	2
64.	Himadri Chemicals (Chem)	2.80	4
65.	Tata Consultancy Services	3.18	3
		Total	507

5.1.13. Does the College have a registered Alumni association? If yes, what are its activities and contributions to the development of the College?

Alumni Association is not a registered body

➢ The college has alumni association. All the outgoing students automatically become members of the association. The alumni association offers various facilities.
➢ The alumni are members of the BOS, and contribute their expertise in designing of course curriculum.
➢ They provide feedback to the college and gives suggestion for overall development of the college.

5.1.14 Does the College have a student grievance redressal cell? Give details of the nature of grievances reported and how they were redressed.

Yes.

➢ HIT-K college has a grievance redressal cell (GRC) exclusively for students both boys and girls separately.
➢ GRC comprises of the principal as the chairman, other senior faculty and student members.
➢ The GRC reviews the grievances of the students once in a month and takes action immediately.
➢ Grievance boxes is placed in front of the principal's office for students, parents and others

Based on complaints dropped in the GRC box, the following facilities are provided.

➢ General facilities are provided to the auditorium and the library.
➢ RO water is provided in the campus.
➢ To cope with the heavy demand for internet browsing, additional systems have been provided in the library.
➢ Printing mistakes in the question paper, questions from out of syllabus are brought to the notice of the grievance redressal cell and they are forwarded to the COE.
➢ Reprographic facility was established in the internet room for photocopying material for library.

5.1.15 Does the College have a cell and mechanism to resolve issues of sexual harassment?

Yes, the college has the anti-ragging committee and woman's cell as per Govt. norms. As per the vision, the college encourages senior students to extend support, encouragement and help to their juniors. There is a cell and mechanism to resolve

issues of sexual harassment. But no such incident has been recorded since inception of college.

5.1.16 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 college has an anti-ragging committee.
➢ The committee has been conducting meeting on ragging and its evil impact on youth by lawyers and police department.
➢ Not only last four years, but from the inception of the college (AY: 2001-02), no incidence of ragging has been recorded.

5.1.17 How does the College elicit the cooperation from all stakeholders to ensure overall development of the students considering the curricular and co-curricular activities, research, community orientation, etc?

➢ HIT-K takes effort in maintaining healthy relationship with stakeholders such as parents, alumni, industrialist by involving them, in B.O.S, A/C and B.O.G thereby eliciting their expertise in framing curricular and community oriented activities.
➢ All departments conduct parent teacher meetings every year to review the overall development of their children. Alumni association is actively involved in activities of the college.
➢ At the time of student admissions, undertakings from parents and students are taken as per AICTE norms to prevent ragging.
➢ Disciplinary action on violation of college / hostel rules is taken after discussion with the parents.
➢ Disciplinary action for malpractice in examination is taken as per college examination rules and informed to the parents.
➢ Feedbacks from the various stakeholders are collected in written questionnaire.

5.1.18 What special schemes/ mechanisms are in place to motivate students for participation in extracurricular activities such as sports, cultural events etc.?

➢ The college made certain unique and well intended efforts to motivate each of the students to involve in sports and cultural activities.
➢ Students have been provided special diet during the training period.
➢ The college offer scholarships for talented sports students, Sports students are provided with sports kit and uniforms.
➢ Special classes are taken to cover the syllabus.
➢ Students are deputed for participation in debate, seminars, and competitions in all over the state.
➢ Fine arts — Fine art association organizes various cultural programmes.
➢ Training facilities are provided to the students who are participating in cultural activities.

To participate outside the College

➢ Students are encouraged to participate in the youth festivals organized by MAKAUT every year.
➢ Display names of prize winners on the college notice board
➢ Honoring the winner in a college function
➢ Flexibility in attendance requirements to enhance participation in sports and cultural activities outside the college.

5.1.19 How does the College ensure participation of women in 'intra' and 'inter' institutional sports competitions and cultural activities? Provides details of sports and cultural activities in which such efforts were made?

➢ The college ensures the participation of girl students in 'inter' and 'intra' institutional sports competitions and other cultural activities on par with boys.
➢ The fine arts association organizes various cultural activities inside and outside the college like, folk dance classical dance during the college day competition and festival at MAKAUT

5.2 Student Progression

5.2.1 Provide details of programme-wise success rate of the College for the last four years. How does the College compare itself with the performance of other autonomous Colleges / universities (if available)

Yes, we have an autonomous exam department which works independently and is responsible for performing result analysis as well. HIT-K has the highest pass percentage among other colleges under MAKAUT, W.B. and has been displaying excellent pass percentage consistently across the years.

Academic Performance of the students admitted in AY's 2011-12 (1st Yr) 2012-13 (2nd yr), 2013-14 (3rd yr) and 2014-15 (4th yr) (wherever applicable)

Academic Performance of the Students for the Academic Year 2014-15

Department	HIT			University			Other College		
	Students appeared	Students Passed	% of success	Students appeared	Students Passed	% of success	Students appeared	Students Passed	% of success
EEE	-	-	-						
ECE	211	204	97						
AEIE	70	67	96						
CSE	117	110	97						
IT	68	66	97						
CE	66	62	94						

Department	HIT			University			Other College		
	Students appeared	Students Passed	% of success	Students appeared	Students Passed	% of success	Students appeared	Students Passed	% of success
ME	76	68	89						
CHE	70	68	97						
BT	68	64	94						
MBA	NA	NA	NA						
MCA	58	58	100						
MBA (Part Time)	NA	NA	NA						
AEIE- ME Degree	13	13	100						
CS- ME Degree	33	32	97						
BT- ME Degree	12	12	100						
CHE- ME Degree	NA	NA	NA						
ECE- ME Degree	11	11	100						
IT- ME Degree	9	6	67						
VLSI- ME Degree	16	16	100						

Academic Performance of the Students for the Academic Year 2013-14

Department	HIT			University			Other College		
	Students appeared	Students Passed	%age	Students appeared	Students Passed	%age	Students appeared	Students Passed	%age
EEE	-	-	-						
ECE	147	145	99						
AEIE	64	61	95						
CSE	104	100	96						
IT	65	63	97						
CE	-	-	-						
ME	-	-	-						
CHE	69	67	97						
BT	58	53	91						
MBA	107	97	91						
MCA	47	47	100						
MBA (Part Time)	08	06	75						
AEIE- ME Degree	18	18	100						
CS- ME Degree	34	33	97						
BT- ME Degree	15	15	100						
CHE- ME Degree	NA	NA	NA						

Department									
ECE- ME Degree	17	17	100						
IT- ME Degree	15	14	93						
VLSI- ME Degree	17	17	100						

Academic Performance of the Students for the Academic Year 2012-13

Department	HIT			University			Other College		
	Students appeared	Students Passed	% age	Students appeared	Students Passed	% age	Students appeared	Students Passed	% age
EEE	-	-	-						
ECE	103	103	100						
AEIE	64	64	100						
CSE	94	94	100						
IT	66	65	98						
CE	-	-	-						
ME	-	-	-						
CHE	58	58	100						
BT	57	57	100						
MBA	153	140	92						
MCA	56	55	98						
MBA (Part Time)	22	21	95						
AEIE- ME Degree	15	15	100						
CS- ME Degree	31	31	100						
BT- ME Degree	18	18	100						
CHE- ME Degree	01	01	100						
ECE- ME Degree	17	17	100						
IT- ME Degree	9	9	100						
VLSI- ME Degree	16	16	100						

Academic Performance of the Students for the Academic Year 2011-12

Department	HIT			University			Other College		
	Students appeared	Students Passed	% age	Students appeared	Students Passed	% age	Students appeared	Students Passed	% age
EEE	-	-	-						
ECE	115	115	100						
AEIE	70	70	100						
CSE	108	108	100						
IT	64	64	100						
CE	-	-	-						

ME	-	-	-
CHE	58	58	100
BT	67	66	99
MBA	119	99	83
MCA	55	54	98
MBA (Part Time)	32	29	91
AEIE- ME Degree	16	13	81
CS- ME Degree	17	17	100
BT- ME Degree	16	16	100
CHE- ME Degree	03	03	100
ECE- ME Degree	16	15	94
IT- ME Degree	-	-	-
VLSI- ME Degree	-	-	-

Academic Performance of the Students for the Academic Year 2010-11

Department	HIT			University			Other College		
	Students appeared	Students Passed	% age	Students appeared	Students Passed	% age	Students appeared	Students Passed	% age
EEE	-	-	-	-	-	-	-	-	-
ECE	101	101	100						
AEIE	63	63	100						
CSE	108	107	99						
IT	59	59	100						
CE	-	-	-						
ME	-	-	-						
CHE	59	59	100						
BT	64	64	100						
MBA	112	108	96						
MCA	54	53	98						
MBA (Part Time)	39	36	92						
AEIE- ME Degree	17	17	100						
CS- ME Degree	16	16	100						
BT- ME Degree	18	18	100						
CHE- ME Degree	02	02	100						

ECE- ME Degree	14	14	100					
IT- ME Degree	-	-	-					
VLSI- ME Degree	-	-	-					

5.2.2 Providing the percentage of students progressing to higher education or employment (for the last four batches) highlight the observed trends.

Department Name: Biotechnology

Name of the course		Year of Passout	Percentage against the enrollment
UG to PG (B.Tech. Biotechnology)		2015	23%
		2014	23%
		2013	30%
		2012	24%
PG to PhD (M.Tech. Biotechnology)		2015	25%
		2014	33%
		2013	29%
		2012	50%
PhD to Post Doctoral		2015	NIL
		2014	NIL
		2013	NIL
		2012	NIL
Employed	Campus Selection	2015	55%
		2014	58%
		2013	26%
		2012	68%
	Other than campus recruitment	2015	NIL
		2014	NIL
		2013	NIL
		2012	NIL
Entrepreneurs		2015	NIL
		2014	NIL
		2013	NIL
		2012	NIL

Department Name: Chemical Engineering

Name of the course	Year of Passout	Percentage against the enrollment
UG to PG	2015	10.0
	2014	13.0
	2013	18.9
	2012	27.2
PG to PhD	2015	57.1
	2014	22.3

Name of the course		Year of Passout	Percentage against the enrollment
		2013	20.0
		2012	16.7
PhD to Post Doctoral		2015	25.0
		2014	50.0
		2013	67.0
		2012	67.0
Employed	Campus Selection	2015	47%
		2014	51%
		2013	69%
		2012	89%
	Other than campus recruitment	2015	1.0%
		2014	4.3%
		2013	3.4%
		2012	1.7%
Entrepreneurs		2015	NIL
		2014	NIL
		2013	NIL
		2012	NIL

Department Name: Applied Electronics and Instrumentation Engineering

Name of the course		Year of Passout	Percentage against the enrollment
UG to PG		2015	10
		2014	10
		2013	5
		2012	2
PG to PhD		2015	2
		2014	2
		2013	5
		2012	2
PhD to Post Doctoral		2015	0
		2014	0
		2013	0
		2012	0
Employed	Campus Selection	2015	76
		2014	65
		2013	85
		2012	85
	Other than campus recruitment	2015	18
		2014	25

	2013	10
	2012	10
Entrepreneurs	2015	2
	2014	2
	2013	2
	2012	2

Department Name: Civil Engineering (1st Batch have passed out in 2015)

Name of the Course	Year of Passout	Percentage against enrolled
UG to PG	2015	NIL
PG to M.Phil.		NIL
PG to Ph.D.		NIL
Ph.D. to Post-Doctoral		NIL
Employed ● Campus selection ● Other than campus recruitment		81 19
Entrepreneurs		NIL

Department Name: Computer Science and Engineering

Name of the course	Year of Passout	Percentage against the enrollment
UG to PG	2015	11
	2014	11
	2013	12
	2012	10
PG to PhD	2015	NIL
	2014	NIL
	2013	NIL
	2012	NIL
PhD to Post Doctoral	2015	NIL
	2014	NIL
	2013	NIL

		2012	NIL
Employed	Campus Selection	2015	86
		2014	85
		2013	67
		2012	89
	Other than campus recruitment	2015	NIL
		2014	NIL
		2013	NIL
		2012	NIL
Entrepreneurs		2015	NIL
		2014	NIL
		2013	NIL
		2012	NIL

Department Name: Electrical Engineering (1st Batch will pass out in 2016)

Student progression	Percentage against enrolled
UG to PG	NA(New Department)
PG to M.Phil	NA
PG to Ph.D.	NA
Ph.D. to Post-Doctoral	NA
Employed • Campus selection • Other than campus recruitment	75 02
Entrepreneurs	NIL

Department Name: Electronics and Communication Engineeing

Name of the course		Percentage against the enrollment
UG to PG	2015	8
	2014	9
	2013	8
	2012	6
PG to PhD	2015	NIL

		2014	NIL
		2013	NIL
		2012	NIL
PhD to Post Doctoral		2015	NIL
		2014	NIL
		2013	NIL
		2012	NIL
Employed	Campus Selection	2015	84
		2014	71
		2013	58
		2012	92
	Other than campus recruitment	2015	NIL
		2014	NIL
		2013	NIL
		2012	NIL
Entrepreneurs		2015	NIL
		2014	NIL
		2013	NIL
		2012	NIL

Department Name: Information Technology

Name of the course	Year of Passout	Percentage against the enrollment
UG to PG	2015	NIL
	2014	NIL
	2013	NIL
	2012	NIL
PG to PhD	2015	NIL
	2014	NIL
	2013	NIL
	2012	NIL
PhD to Post Doctoral	2015	NIL
	2014	NIL

Name of the course		Year of Passout	Percentage against the enrollment
		2013	NIL
		2012	NIL
Employed	Campus Selection	2015	90.76
		2014	68.18
		2013	69.23
		2012	61.78
	Other than campus recruitment	2015	NIL
		2014	7.46
		2013	3.17
		2012	NIL
Entrepreneurs		2015	NIL
		2014	NIL
		2013	NIL
		2012	NIL

Department Name: Mechanical Engineering (1ˢᵗ Batch have passed out in 2015)

Student progression	Year of Passout	Percentage against enrolled
UG to PG	2015	0.26
PG to M.Phil		NA
PG to Ph.D.		NA
Ph.D. to Post-Doctoral		NA
Employed • Campus selection • Other than campus recruitment		67.1 Data not available
Entrepreneurs		NIL

5.2.3 What is the Programme-wise completion rate/dropout rate within the time span as stipulated by the College/University?

Department Name: Biotechnology

Name of the Course	Applications received	Selected			Pass percentage (Completion Rate)	
		Year	Male	Female	Male	Female
B.Tech in Biotechnology	66	2014-15	25	41	100%	100%
	55	2013-14	24	31	100%	100%
	57	2012-13	26	31	100%	100%
	67	2011-12	29	38	100%	100%
M.Tech in Biotechnology	12	2014-15	4	8	100%	100%
	15	2013-14	3	12	100%	100%
	17	2012-13	5	12	100%	100%
	16	2011-12	6	10	100%	100%

Department Name: Chemical Engineering

Name of the Course	Applications received	Selected			Pass percentage (Completion Rate)	
		Year of Passout	Male	Female	Male	Female
B.Tech in Chemical Engineering	71	2014-15	45	26	100%	100%
	73	2013-14	57	16	100%	100%
	73	2012-13	55	18	100%	100%
	72	2011-12	60	10	96.4%	100%

Department Name: Applied Electronics and Instrumentation Engineering

Name of the Course	Applications received	Selected			Pass percentage (Completion Rate)	
		Year of Passout	Male	Female	Male	Female
B.Tech in Applied Electronics and Instrumentation Engineering	63	2014-15	42	21	100%	100%
	61	2013-14	46	15	100%	100%
	63	2012-13	45	17	100%	100%
	62	2011-12	48	14	100%	100%

Name of the Course		17	2014-15	7	10	100%	100%
M.Tech in Applied Electronics and Instrumentation Engineering		14	2013-14	9	5	100%	100%
		18	2012-13	7	11	100%	100%
		17	2011-12	10	7	100%	100%

Department Name: Civil Engineering

Name of the Course	Applications received	Selected			Pass percentage	
		Year of Passout	Male	Female	Male	Female
B.Tech	60	2014-2015	58	07	93	100

Department Name: Computer Science and Engineering

Name of the Course	Applications received	Selected			Pass percentage (Completion Rate)	
		Year of Passout	Male	Female	Male	Female
B.Tech	117	2014-15	79	31	92.94%	96.87%
	104	2013-14	62	37	93.93%	97.36%
	94	2012-13	76	18	100%	100%
	108	2011-12	77	31	100%	100%
M.Tech	33	2014-15	18	13	100%	86.66%
	34	2013-14	21	12	95.45%	100%
	31	2012-13	16	15	100%	100%
	17	2011-12	11	6	100%	100%

Department Name: Electrical Engineering
New Department (1st Batch will pass out in 2016)

Department Name: Electronics and Communication Engineeing

Name of the Course	Applications received	Selected			Pass Percentage	
		Year of passout	Male	Female	Male	Female
B. Tech	231	2015	166	45	90.96	93.33
	149	2014	115	32	98.26	100
	104	2013	91	12	98.90	100
	117	2012	85	30	97.65	100
M. Tech (Communication)	16	2015	9	7	100	100
	17	2014	7	10	100	100
	17	2013	9	8	100	100
	17	2012	12	4	91.67	100
M. Tech (VLSI)	13	2015	7	6	100	100
	17	2014	12	5	100	100
	16	2013	9	7	100	100
		2012	-	-	-	-

Department Name: Information Technology

Name of the Course	Application received	Selected			Pass percentage	
		Year of Passout	Male	Female	Male	Female
B. Tech	71	2014-15	48	20	93.75	100
	67	2013-14	44	21	95.45	100
	67	2012-13	43	23	100	95.65
	66	2011-12	44	21	100	95.23
M. Tech	20	2014-15	6	5	50	60
	23	2013-14	7	11	71.4	81.8
	11	2012-13	5	5	80	100
		2011-12	--	--	--	--

Department Name: Mechanical Engineering

Name of the Course	Applications received	Selected			Pass percentage	
		Year	Male	Female	Male	Female
B.Tech	76	2014-2015	74	02	100%	100%

5.2.4 What is the number and percentage of students who appeared/qualified in Examinations like UGC-CSIR-NET, UGC-NET, SLET, ATE / CAT / GRE / TOFEL / GMAT / Central / State services, Defense, Civil Services, etc.

Department Name: Biotechnology

Academic Year	GATE	TOEFL	IELTS	GRE	CAT	MAT	Total	%Appeared	%Qualified	Batch Size
2014-2015	16	-	-	-	2	-	18	19	94.7	65
2013-2014	6	5	1	5	-	-	17	20	85	55
2012-2013	8	3	-	3	3	-	17	20	85	57
2011-2012	13	5	-	5	3	-	26	30	86.6	67

Department Name: Chemical Engineering

Academic Year	GATE	TOEFL	IELTS	GRE	CAT	MAT	Total	%Appeared	%Qualified	Batch Size
2014-2015	12	-	-	-	-	-	12	26.4	65	70
2013-2014	15	5	-	5	-	-	25	48.3	75	69
2012-2013	20	2	-	2	1	-	25	50.7	85	58
2011-2012	10	2	-	2	-	-	14	30.2	80	58

Department Name: Applied Electronics and Instrumentation Engineering

Academic Year	GATE	TOEFL	IELTS	GRE	CAT	MAT	Total	%Appeared	%Qualified	Batch Size
2011-2012	7	0	0	0	1		8	20%	13%	60
2012-2013	11	1	0	1	3		16	30%	26%	60
2013-2014	4	2	0	2	0		8	20%	13%	60
2014-2015	6	1	0	2	4		13	30%	22%	60

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Department Name: Civil Engineering

Academic Year	Govt. & other Competitive Examinations	GATE	TOEFL	IELTS	GRE	CAT	MAT	Total	%Appeared	%Qualified	Batch Size
2014-2015	5	8	0	0	0	0	0	13	38.46	20	65

Department Name: Computer Science and Engineering

Academic Year	GATE	TOEFL	IELTS	GRE	CAT	MAT	Total	%Appeared	%Qualified	Batch Size
2014-2015	10	1	-	1	8	-	20	30	66.67%	90
2013-2014	9	3	-	3	8	-	23	32	71.87%	90
2012-2013	9	3	-	3	4	-	19	28	67.85%	90
2011-2012	6	3	-	3	2	-	14	21	66.67%	90

Department Name: Electrical Engineering
New Department

Department Name: Electronics and Communication Engineeing

Academic Year	GATE	TOEFL	IELTS	GRE	CAT	MAT	Total	%Appeared	%Qualified	Batch Size
2014-2015	5	4		4	5		18	30	28	218
2013-2014	7	4		4	4		19	38	35	141
2012-2013	8	5		5	6		24	47	43	116
2011-2012	6	4		4	5		19	42	38	114

Department Name: Information Technology

Academic Year	GATE	TOEFL	IELTS	GRE	CAT	MAT	Total	%Appeared	%Qualified	Batch Size
2011-	3	-	-	1	15	-	19	44.61	29.23	65

2012										
2012-2013	4	-	-	2	10	-	16	42.42	24.24	66
2013-2014	2	1	-	3	5	-	11	41.53	16.92	65
2014-2015	2	1	-	3	1	-	7	35.29	10.29	68

Department Name: Mechanical Engineering

Academic Year	GATE	TOEFL	IELTS	GRE	CAT	MAT	Total	%Appeared	%Qualified	Batch Size
2014-2015	06 (qualified)	-	-	-	-	-	06	19.79	7.9	76

5.2.5 Provide details regarding the number of Ph.D/D.Sc./D.Litt. theses submitted, accepted, resubmitted and rejected in the last four years.

Department Name: Biotechnology

Name of the Degree	Number of faculty	
	Submitted	Awarded
Ph.D.	01	04

Department Name: Chemical Engineering

Name of the Degree	Number of faculty	
	Submitted	Awarded
Ph.D.	NIL	03 01 (2014-2015); 01 (2013-2014); 02 (2012-2013)

Department Name: Applied Electronics and Instrumentation Engineering

Name of the Degree	Number of faculty	
	Submitted	Awarded
Ph.D.	3	2

Department Name: Civil Engineering

Name of the Degree	Number of faculty	
	Submitted	Awarded
Ph.D.	01	01

Department Name: Computer Science and Engineering

Name of the Degree	Number of faculty	
	Submitted	Awarded
Ph.D.	0	3 1(2013) 2(2012)

Department Name: Electrical Engineering

Name of the Degree	Number of faculty	
	Submitted	Awarded
Ph.D.	0	1(2012)

Department Name: Electronics and Communication Engineering

Name of the Degree	Number of faculty	
	Submitted	Awarded
Ph.D.	11	7

Department Name: Information Technology
NA

Department Name: Mechanical Engineering

Department Name: Mechanical Engineering Name of the Degree	Number of faculty	
	Submitted	Awarded
Ph.D.	0	5

5.3 Student Participation and Activities

5.3.1 List the range of sports and games, cultural and extracurricular activities available to students. Provide details of participation and program calendar.

HIT-K has spacious play ground for boys and girls.

Outdoor Games:

➢ Archery

- ➢ Basketball
- ➢ Cricket
- ➢ Football
- ➢ Swimming
- ➢ Volleyball

HIT-K has well built infrastructure for indoor games.

Indoor Games:

- ➢ Carom
- ➢ Gymnasium
- ➢ Table Tennis

5.3.2 Provide details of the previous four years regarding the achievements of students in co-curricular, extracurricular activities and cultural activities at different levels:

University / State / Zonal / National / International, etc.

Details of winners in various Sports and Games for 4 years:

ACADEMIC YEAR 2015-16

Sl. No.	Name of the Sport	Name of the Event	Result
1	Football	Joga Bonito	Champion
2	Cricket & Football	Kalyani Govt. Engineering College Tournament	Semi final
3	Football	Elastico	Runner up
4	Football	RG Kar Tournament	Runner up
5	Table Tennis	Top Spin	Runner up
6	Archery	District Archery Meet	Second & Third
7	Archery	State Archery Meet	1st & 2nd
8	Rowing	Junior National Rowing Championship	Won Silver Medal

ACADEMIC YEAR 2014-15

Sl. No.	Name of the Sport	Name of the Event	Results
1	Basketball	BPL-IMG Reliance College Basketball League (Boys)	Quarter final
2	Basketball	Indian College Basketball League – Kolkata Zone	Quarter final

3	Table Tennis & Tennis	BIT Patna	Semi final Successfully participated
4	Football	Pailan Frontier	Runner up
5	Football	Kick Off	Champion
6	Football	BESU	Runner up
7	Football	Elastico	Champion

ACADEMIC YEAR 2013-14

Sl. No.	Name of the Sport	Name of the Event	Results
1	Cricket	Muqabla – 'Parakram'	Successfully participated
2	Football	Calcio – 'Parakram'	Successfully participated
3	Basketball	Re-bound – 'Parakram'	Successfully participated
4	Table Tennis, Tennis	'Parakram'	Successfully participated
5	Badminton	'Parakram'	Successfully participated
6	Football	BIT-Patna Inter College Football Tournament	Champion
7	Football	Poto Cup	Champion
8	Tennis	ISM Dhanbad	Semi Final
9	Football	'Elastico' – Inter College Football Tournament	Champion
10	Football	RCC-LIT Inter College Football Tournament	Champion
11	Football	Inter College Football Tournament organized by Meri	Champion
12	Table Tennis, Tennis	'Parakram' – ISM Dhanbad	Quarter-finals / Semi fianl
13	Football	'Spectrum' – NIFT	Champion
14	Football	BBIT tournament	Semi finalist
15	Table Tennis	JIS tournament	Runner up

ACADEMIC YEAR 2012-13

Sl. No.	Name of the Sports	Name of the Event	Result
1	Football	Parakram	League matches
2	Football	Heritage Champion Trophy	Semi-final
3	Football	BBIT	Runner up

| 4 | Football | EILM | League matches |
| 5 | Football | Inter College Football Tournament | Champion |

ACADEMIC YEAR 2011-12

Sl. No.	Name of the Sports	Name of the Event	Results
1	Cricket	Inter College Cricket Meet	Team became Champion
2	Football	Inter College Football Meet	Team became Champion
3	Table Tennis	Inter College Table Tennis Tournament	Became Champion
			Became Runner Up
4	Football	Joga Bonito	Became HIT-K Champion
5	Football	Parakram	Qualified to Semi-final
6	Football	BESU	Became Champion
7	Football	WBUT Cup	Qualified to Quarter Final
8	Football	EILM Cup	Qualified to Semi-final

The cultural, extracurricular and co-curricular activities of the college have been detailed below:

Year 2015:

➢ HIT-K were the Runners-up in IT Quiz organized at COMPASS Tech Fair from 13th Feb 2015 till 15th Feb 2015.

➢ HIT-K bagged the First Runners-up position in Economic Times Campus Quiz organized by Economic Times on 2nd Feb 2015.

➢ National Conference on Mathematical Trends in Physical Sciences 2014 (NCMTPS 2014) jointly organized by the Department of Mathematics and the Department of Physics, was held on 13th & 14th August at Heritage Institute of Technology, Kolkata under the aegis of TEQIP-II. Around 100 participants comprising of faculty members from different colleges and universities, research scholars and students attended the sessions. The Conference was inaugurated by Swami Atmapriyanandaji Maharaj, Vice Chancellor, Ramakrishna Mission Vivekananda University, Belur. There were six sessions in the conference, three each day, dedicated to the discussion of six thrust areas of the conference which are of contemporary interest in Mathematical and Physical Sciences.

➢ ECLECIA 2015- the Annual Cultural Fest witnessed participation of more than 20 colleges from the city. The fest included various activities like creative

writing, debate, tattoo painting, paintball, script writing, antakshari, music, fashion show and many more. The Fest was held from 4th till 6th April 2015 and on the last day a grand performance of popular singer Mohit Chauhan thrilled the audience.

➢ DAKSSH 2015- the Tech fest of HIT-K was organized on 18th & 19th March 2015. A fabulous Air Show organized by the Students Council in association with India's Hobby Centre on 19th March 2015.

➢ 8th batch of B.Tech students, HIT-K, with Dr. Durgamadhab Misra participated at the 6-week Summer Research Programme at NJIT, USA.

➢ "Prologue", the Parliamentary Debate, was organized by HIT-K in association with Presidency University on 11th and 12th April 2015 respectively.

➢ COMPASS 2015 – Freshers' Induction and Orientation Programme of the B.Tech and MCA Students was organized on 3rd August 2015.

➢ The 15th Foundation Day and the Teachers' Day Celebration Programme were organized on 4th September 2015.

➢ On 4th November 2015, Department of Biotechnology, HIT-K, Kolkata, organized a Seminar on "Science for Nation Building" sponsored by West Bengal State Council of Science and Technology and catalyzed by National Council for Science, Technology and Communication, DST, New Delhi.

➢ Rotaract Club of HIT-K was awarded the Best Club out of 30 Rotaract Clubs in Rotaract District 3291 at the Annual District Awards Event of Rotaract District 3291, for the term 2014-15, held on 28th June, 2015. A total of 16 awards were received by RC HIT-K (maximum that was ever received since 2009), details of which are as follows:

1. Best Club of Rotaract District 3291
2. Best President in Rotaract District 3291- Ramyani Mukherjee
3. Best Secretary in Rotaract District 3291-Swarnadeep Biswas
4. Best Club in Community Service
5. Best Project- Joga Bonito (Knock out Football Tournament for raising funds for Durbar Football Team – members comprising children of sex workers of Sonagachi: a red light area)
6. Best R-Idea of the year- Liter of Light (A 2-day project to demonstrate use of ordinary water bottles and bleach to illuminate the houses of the poor: it is an eco friendly and cost effective method of providing light to those places which are quite congested).

7. Best International Service Project- The great raffle for Nepal Earthquake victim.
8. Best Professional Development Project –Outliers (Women's Day Celebration)
9. Best Special Area Project- Project Teach.
10. Best Club in Basic Education and Literacy
11. Best Club that has complied to DRR's thrust areas (a total of 26 thrust area projects)
12. Club with best bulletin
13. Club with best social media presence
14. Most popular club
15. Most popular rotaractor- Sayantani Roy
16. Outstanding Rotaractor of Rotaract District 3291- Sayantani Roy

Year 2014:

➢ The Rotaract Club of HIT-K received the following Rotaract District Awards 2014 at RID 3291 "TRIONFO":

1. Best Club Membership Growth
2. Best work for Women Empowerment
3. Best Club in Community Service
4. Best Club in Professional Development and Leadership
5. Got a Presidential Citation from Rotary International DRR's Trophy
6. The project at Jharkhand made it to the top ten projects of the district
7. 'Outliers' was among the top three PD Projects of the district.

And the biggest achievement of the year, HIT-K Rotaract Club was adjudged the '*3rd Best Club in the Rotary International District 3291*'.

➢ Krishna Nath Dutta, a 3rd year student of B.Tech-Mechanical Engineering, received a Certificate of Excellence for having stood 1st in the Paper Presentation competition "PAPYRUS", held on 28th February, 2014 at the Annual Techno - Management Fest of Jadavpur University "SRIJAN 2014".

➢ Megha Nangia B.Tech Final year student of Department of CSE was selected as a participant in International Development Youth Forum (IDYF 2014) which was held in Tokyo, Japan for a week in March, 2014. She was selected as one of the five delegates from South Asia and she is the only one from India.

➢ The departments of ECE and AEIE, at HIT-K organized an International Conference on Electronics, Communication and Instrumentation 2014 sponsored by TEQIP-II and IEEE Kolkata Section. Prof. Alex Mason, Liverpool University, U.K., Prof. Samar Saha, Compact Modeling SuVolta, Inc, (USA) and Prof.

Shikharesh Majumdar, Carleton University, (Canada) deliberated in the conference.

➤ Department of CSE and IT, HIT-K organized the 1st International Conference on Applied Algorithms 2014 sponsored by TEQIP-II. It was a great opportunity to listen to the lectures of eminent scientists such as Prof. Christos Zaroliagis, University of Patras, (Greece); Prof. Assaf Schuster, Technion, Israel Institute of Technology, Haifa, (Israel); Prof. Rina Panigrahy, Microsoft Research, Mountain View, (USA); Prof. Dimitrios Gunopulos, University of Athens, (Greece); Prof. Gautam Das, University of Texas, Arlington, (USA) and Prof. Bhargab B. Bhattacharya, Indian Statistical Institute, Kolkata, (India). Research scholars and faculty members from eminent institutes made over 21Presentations at this Conference.

➤ Professor Siben Dasgupta, Wentworth Institute of Technology, USA conducted a Seminar on 'Linear and Nonlinear Discrete and Classical Control System Experiments' on 6th Jan 2014.

➤ Prof. Richard J. Cobley from Prifysgol Abertawe Swansea University, Prof. (Dr) Kevin S Paulson from University of Hull and Dr. Mihaela Anca Ciupala, from University of East London visited HIT-K and addressed the students on 'Career prospects in Research and Development in Nano-Technology,Electronics and Telecommunications and Computer Science and Engineering' on 18th Feb 2014.

➤ Mr. Ben Sakker Kelly First Secretary (Education & Science) Australian High Commission visited HIT-K and addressed the students and faculty members on Australian Government Fellowship Programmes on 20th May.

➤ The 7th Batch (13 B.Tech students), HIT-K successfully completed their Summer Research Programme at New Jersey Institute of Technology in June-July 2014. This year Mr. Clayton Moses, Academic Advisor also visited NJIT on invitation and conducted seminars for International students and faculty members of NJIT.

➤ A one day workshop on 'Disaster Management' was organized by Chemical Engineering Department with technical support from Disaster Management Department, Govt. of India on 4th April 2014. The speakers at the workshop were Shri Amit Chaudhuri, former Joint Secretary, Disaster Management Department, Govt. of West Bengal; Dr. Muzaffar Ahmad, Hon'ble Member, National Disaster Management Authority; Dr. Chandan Ghosh, Professor & Head, GeoHazards, National Institute of Disaster Management (NIDM) and Dr. Anish Banerjee, Lead Technical Expert, Hospital Disaster Management, NDMA.

➤ COMPASS 2014, Orientation Programme of new batch 2014-15 of B.Tech students was organized on 31st July 2014. It was inaugurated and addressed by

Swami Atmapriyanandaji, Vice-Chancellor, R.K. Mission Vivekananda University, Belur, as the Chief Guest.

➢ Pravasana Club of HIT-K organized the 4th Film Festival and a Photography and Painting exhibition on 7th and 8th February 2014.

➢ SINOFIA 2014, the 42nd Rotaract District Conference was organized on 1st March 2014 in the Campus.

➢ Dr. Debnath Chaudhuri, Professor & Head, Department of Biochemistry & Nutrition, All Indian Institute of Hygiene and Public Health, Kolkata, addressed the faculty members and students of Biotechnology on the topic 'Foods: Myths and Reality', on 7th March 2014. The distinguished lecture was organized by the Department of Biotechnology.

➢ Department of Electrical Engineering organized a National Conference on 'Recent Trends in Power Engineering' on 13th and 14th March 2014 in the campus under TEQIP-II. The Conference was inaugurated by Mr. A. Bose, Executive Director, Power Transmission, CESC Ltd as the Chief Guest. Mr. M. Majumdar, Former MD, Durgapur Projects Ltd was present as the Guest-of-Honour.

➢ Department of Humanities had arranged a panel discussion on 'Professional Ethics: Honesty is Still the Best Policy' on 20th of March, 2014. The speakers were Prof. Gopa Dutta (Professor of Lady Brabourne College), Prof. Timir Baran Chatterjee (Senior Executive Vice President, DIC India Ltd), Prof. Suman K. Mukherjee (Principal Dean, Bharatiya Vidya Bhavan Institute of Management Sciences, Kolkata) and Mr. Nilabhra Dasgupta (Dy. Commissioner, Income Tax Dept., Kolkata).

➢ A 7 Day workshop was organized by the Department of Electronics and Communication Engineering on "Android Application" from 23rd March till 1st April 2014 as a part of Finishing School Programme under TEQIP-II.

➢ On 5th April 2014, the CSE Department organized its 1st Annual Departmental Meet, 'CSE Rendezvous', which presented students a unique opportunity to interact with their seniors, professors as well as the alumni of the Department in an informal setting, unbound by the constraints often imposed by the four walls of the class rooms.

➢ Advantage Intercollege Lawn Tennis competition was organized by HIT-K on 9th April 2014.

- Professor Kaushik Roy, from School of Electrical and Computer Engineering, Purdue University visited HIT-K on 23rd April 2014 and delivered a talk on 'NANOELECTRONICS: A Bottom-up Approach'.

- Mr. Mrinal Das, Vice President of Sankalp Semiconductor Pvt. Ltd. addressed the students of ECE Department on 'Global trends in Electronics: Impact on India' on 15th May, 2014.

- CONFLUENCE-2014, the New Parents Orientation Programme for the New batch of B.Tech Students 2014-2018 had been organized on 2nd August 2014.

- DAKSHH 2014, the Tech Fest of HIT-K, organized from 2nd to 4th April 2014 witnessed participation of 16 colleges across the city.

- Eclecia 2014, the Annual Fest of HIT-K was organized from 10th to 12th April. 20 colleges from across the city took part in it. Eminent singer KK's fabulous performance mesmerized the youth at the end of the programme.

- A health camp was organized by Kalyan Bharti Trust (KBT) in association with Lion's Club Kolkata Adarsh in the campus on 23rd February 2014. Rotaract Club members of HIT-K actively participated in the health camp.

- Rotaract Club members of HIT-K also organized an educational trip to Science City Kolkata on 15th February 2014 for the kids of Socio Legal Aid Research and Training Centre (SLARTC).

- Rotaract Club members of HIT-K organized a programme "Rang Barse" for the unfortunate children of the Cancer Ward of S.S.C.C.R.I., Cancer Hospital at Thakurpukur on 15th March 2014 as a prelude to the colorful event of Holi.

- In collaboration with KHOLO ANKHI, an NGO, that runs KHOLO ANKHI Slum School in Beliaghata, Rotaract Club of HIT-K organized a workshop 'Project Koshis – Health & Hygiene' for the said slum school on 23rd March, 2014.

- Annual sports for the students of Suryakiran was organized by Rotaract Club of HIT-K on 28th March 2014 at The Heritage School Grounds.

- Paper presentation of B.Tech Final Year students of Department of Computer Science & Engineering under the guidance of Prof. Subhashis Majumder, won the 2014 Best Poster of Bigdata Science Award at Beijing.

- Prof. Stefano Curcio, Senior Researcher of Chemical Engg. from University of Calabria, Italy, Dr. Sudip Chakraborty, Senior Research Scientist, University of Calabria and Prof. Vincenza Calabro, University of Calabria, Italy visited HIT-K

for a Lecture Session on Membrane Technology organized on 26th Sept. 2014 jointly by Department of Chemical Engineering and Department of Chemistry under TEQIP-II.

➤ 14th Foundation Day was celebrated along with as Award Ceremony on 5th September 2014.

➤ Freshers' Welcome programme – NASCENT 2014, was organized from 17th October 2014 till 19th October 2014.

➤ Workshop on UNIX under TEQIP-II held on 28th October 2014.

➤ Dr. Narayan Banerjee, Professor, IISER Kolkata addressed the students on the Concept of "Black Hole" under Science Club on 7th November 2014.

➤ Rotaract Club Activities- Litter of Light Project, Swachh Bharat Abhiyaan, Rashtriya Ekta Diwas, Self-Defence Workshop, Donation of Clothes, Celebration of Children's Day with children of Thakurpukur Cancer Hospital, Bhai Phonta, Community Service at Ghatshila etc.

Year 2013:

➤ MDP by CSE Department, HIT organized on 24th and 25th January 2013 on Complex and Social Networks under TEQIP-II

➤ Rotaract Club of HIT-K, was officially presented the Charter of Rotary International, being next only to IIM Calcutta, IIT Kharagpur and Jadavpur University in the State of West Bengal.

➤ 'EKAKI' a short film made by Kaustav Debnath, B. Tech (Fourth Year), IT was screened in the Kolkata International Film Festival 2013.

➤ A debate was organized by The Bengal National Chamber of Commerce and Industries (BNCCI) on the motion "Renewable Energy meets Energy Security" where the Proposition team won the motion with Anuvab Bandyopadhyay (B. Tech student-Department of Computer Science Engineering, would be graduating in 2016) being adjudged the Best Speaker. Prize and Certificate was awarded by the President of India in the 160th AGM of BNCCI held on 14th September 2013

➤ Mr. Priya Ranjan, B. Tech- CSE 4th year won Nokia's Asha Innovation App Challenge Contest 2013 under the category "Speaking News" on July 3rd, 2013. He won a cash reward of 1000 Euros and a Nokia Asha 311 mobile phone.

➤ National Science Day was celebrated by the Department of Biotechnology on 1st October 2013. The programme was funded by the West Bengal State Council of

Science and Technology and the Department of Science and Technology, Govt. of India, New Delhi. Dr. Maitreye Banerjee, Senior Scientist, West Bengal State Council of Science and Technology, Kolkata addressed the students and faculty members during the programme.

➢ We are the World, a discussion presented by the Heritage Group of Institutions and Calcutta Debating Circle in association with The Telegraph, saw Harvard, Yale, Cambridge and Oxford universities share the stage on Thursday 19th December 2013 with students from St. Stephen's, Delhi, The Heritage School and the Heritage Institute of Technology. Judges present were Helen LaFave, the US Consul-General, Malabika Sarkar, the vice-chancellor of Presidency University, and Scott Furssedonn-Wood, the British Deputy High Commissioner.

➢ COMPASS 2013, Campus Orientation Programme, for new batch of B.Tech students 2013-14 was organized on 1st and 2nd August 2013. The programme was addressed by Rev. Fr. (Dr.) J. Felix Raj, SJ, Principal, St. Xaviers College (Autonomous) Kolkata, along with our Trustees, Shri H. P. Budhia, Chairman, HBS and Shri P. R. Agarwala, Vice Chairman, HIT-K

➢ CONFLUENCE 2013, Orientation Programme for parents of B.Tech students, was organized at HIT-K on 3rd August 2013.

➢ Foundation Day and Award ceremony was celebrated on 5th September in the campus. Prof. Ajoy Kr. Ray, Vice Chancellor, BESU, addressed the students and faculty members during the programme as the Chief Guest.

➢ HIT-K has established Microsoft Innovation lab in association with Microsoft Research centre for R & D for faculty members and students.

➢ Heritage Institute of Technology, Kolkata, organized a panel discussion on "Higher Education in India- Challenges ahead" on 9th November 2013 as a prelude to the National Education Day. Panelists present were renowned educationists Dr. Asis Banerjee (former Vice-Chancellor, Calcutta University), Dr. Amitava Bose (former Director, IIM Calcutta) and Dr. Sugata Marjit (former Chairman, West Bengal State Council of Higher Education). The panel discussion was moderated by Dr. Alok Ray, Professor, Heritage Business School.

➢ TEQIP-II sponsored workshop on "Computational Biology and Protein Structure Prediction" was organized by the Department of Biotechnology from 23rd September to 27th September 2013. The workshop was addressed by Dr. Chitra Dutta, Indian Institute of Chemical Biology, Dr. Pinakpani Chakraborty, Bose Institute, Dr. Dhananjay Bhattacharyya, Saha Institute of Nuclear Physics, Dr. Soumalee Basu, Calcutta University, Dr. Chhabinath Mondal, National Institute of Pharmaceutical Education and Research, Dr. Rajgopal Chattopadhyay, Bose

Institute, Dr. Rahul Banerjee, Saha Institute of Nuclear Physics, Dr. Saikat Chakrabarti, Indian Institute of Chemical Biology and Dr. Subhra Ghosh Dastidar, Bose Institute, Kolkata.

- National Science Day was celebrated by the Department of Biotechnology on 1st October 2013. The programme was funded by the West Bengal State Council of Science and Technology and the Department of Science and Technology, Govt. of India, New Delhi. Dr. Maitreye Banerjee, Senior Scientist, West Bengal State Council of Science and Technology, Kolkata addressed the students and faculty members during the programme.

- A distinguished Lecture on 'Nanoelectronics' was organized by the Dept. of Electronics and Communication Engineering on 12th August, 2013 in association with IEEE Students' Chapter. Dr. Durga M. Mishra from New Jersey Institute of Technology addressed the participants.

- Petroleum Conservation Research Association (PCRA) in association with Department of Chemical Engineering organized a workshop on "Energy saving techniques for industries" on 27th and 28th Sept. 2013. The workshop was addressed among others by Mr. Indrajit Bose, Executive Director, Marketing Division, Indian Oil Corporation Ltd, Mr. P.K. Raychaudhari, Director, PCRA, Mr. S. Mohanta, Addtl. Director, PCRA, Mr. A. Chakraborty, Addtl. Director, PCRA, Mr. A. Nayak, Asst. Director, National Productivity Council, Shri Joy Chakraborty, Divl. Engineer, WBREDA and Mr. Srijit Mukherjee, Schneider India Kolkata.

- Prof. Udayan Ganguly, Assistant Professor in the Department of Electrical Engineering, Indian Institute of Technology, Bombay addressed the faculty members and students on 18th December 2013, under 'Distinguished Lecture Programme' scheme. Department of Electronics and Communication Engineering in collaboration with IEEE EDS Students' Chapter organised the event.

- Prof. (Dr.) Amritesh Sengupta, IISc, addressed the students and faculty members during an interactive session on "Next Generation 2-D Channel Material based Mofsets: Overview and Simulations Tools" under IEEE students chapter on 4th Sept. 2013.

- Drawing competition organized by Rotaract Club HIT-K on 16th August 2013 for the students.

- Workshop organized at Department of Biotechnology on "Analytical techniques for characterisation of Macro molecules under TEQIP-II from 30th Jan to 1st February 2013.

- A group of 4 Students of Final Year B.Tech (ECE) won awards in "Texas Instruments India Analog Design Contest" on 5th April 2013 out of 350 participants from 102 colleges in India. HIT-K became the only institute in West Bengal to win such an award.

- Ayesha Khandekar, B.Tech (Biotech) student came 1st in technical Paper presentation at All India Inter Engg. College Meet 2013 held on 22nd & 23rd March organized by Forum of Scientists Engineers and Technologists.

- 12 B. Tech students participated in Summer Research Programme at New Jersey Institute of Technology on 21st June 2013.

- Prof. Victor Hruby from University of Arizona visited HIT-K on 7th Feb 2013 during an interactive seminar jointly organized by the Department of Chemical Engineering and the Department of Biotechnology under TEQIP-II.

- International Theatre Workshop organized by Bratyajon was held on 30th April 2013 in the campus. Prof. Bratya Basu, Hon'ble Minister-in-charge, Dept. of Education addressed the participants.

- NATCONIC (National Conference on Instrumentation and Control) 2013 was organized by Department of Applied Electronics and Instrumentation Engg. HIT-K during 26th and 27th Feb 2013. The inaugural function was adressed by Prof. (Dr.) Biswajit Ghosh from School of Energy Studies, Jadavpur University, and Prof. (Dr.) Kalyan Kumar Mallick from Department of Electronics and Telecommunication Engineering, Jadavpur University.

- National Science Day was celebrated at HIT-K on 26th Feb 2013 in association with National Environment Science, Academy West Bengal Chapter. Students participated in a lively debate on "Pricing of Drinking Water".

- Student Council of HIT-K organised Third Film Festival on 19th & 20th April 2013. The inaugural address was delivered by Ms. Aditi Roy, eminent Director of the Film "Aboshese", eminent Photographer Mr. Asis Sanyal & Prof. Shyamal Sengupta, Satyajit Ray Films & Television Institute (SRFTI) Kolkata.

- Eclecia 2013 HIT-K annual cultural fest was held during 4th May to 6th May 2013. There were 30 number of activities and 20 participant colleges. The closing ceremony of Eclecia witnessed a marvellous performance by Bombay Vikings which included Neeraj Sridhar and his team.

- To mark World Cancer Day on 4th Feb 2013, Dr. Vikas Agarwal, Chairman, Global Cancer Trust addressed the students and faculty of Heritage Institute of Technology (HIT-K).

012:

- Entrepreneurship Development Cell of Heritage Institute of Technology, Kolkata, organized a Colloquium on Entrepreneurship - 'KNOT' (Key Note on Technopreneurship) 2012 on 28th & 29th September. Students from various engineering colleges in Kolkata and Durgapur participated in the event. The colleges included were Bengal College of Engineering and Technology, Durgapur Institute of Advanced Technology, Pailan College of Management and Technology and Seacom Engineering College.

- IIT Entrepreneurship Awareness Drive was organized on 5th November 2012 at HIT.

- Stressing on the importance of sustainable development, Biotechnology Engineering Department, HIT organized a seminar which was addressed by Dr. A.K. Ghosh, Director, Centre for Environment and Development on 22nd September 2012.

- The Ex-Chairman, Centre for Applied Research in Electronics, IIT Delhi Prof. A. B. Bhattacharya was at the Heritage Campus for a session on VLSI design for the students on 16th October 2012. It was jointly organized by IEEE Electron devices society, IEEE EDS Students Chapter, HIT, Department of ECE, HIT and IC Design Lab. DST, Govt. of India

- Jyotirmoy Club organized a picnic on Sunday, 23rd December 2012 at The Heritage School for underprivileged children, which was attended by 1300 students.

- Students of Heritage Institute of Technology participated in the Summer Research Programme conducted by New Jersey Institute of Technology (NJIT), USA during July-August 2012.

- Prof. Bikash Sinha, Homi Bhaba Professor, Variable Energy Cyclotron Center (VECC), Department of Atomic Energy, Government of India, visited HIT for a lecture on Higgs Boson, the God Particle, on 8th August 2012.

- World Environment Day was celebrated on 5th June 2012 at the Heritage Campus.

- Blood Donation Camp organized by the HIT students for Kalyani, a charitable medical centre run by Kalyan Bharti Trust.

- Students of Heritage Institute of Technology organized a health camp for the underprivileged in association with Lion's Club on 22nd January 2012. Many patients were treated in Kalyani, a free charitable medical center run by KBT.

> ➤ The Campus Orientation Meeting for Professional, Academic and Social Success (COMPASS) 2012 (induction and orientation programme for the new B.Tech students) was inaugurated on 2nd August 2012 by Dr. Basab Chaudhuri, Registrar, Calcutta University as Chief Guest and Dr. Zahid Gangjee as Guest of Honour.

5.3.3 How often does the collect feedback from students for improving support service?   How is the feedback used?

Every year the college collects feedback from students of outgoing batch and studying student on various issues relating to academic and infrastructural development etc. These feedbacks are analyzed and suggestions are given for improvements of support services. The college principal discusses relevant issues with the respective faculty members and takes necessary action for improvement.

5.3.4 Does the College have a mechanism to seek and use data and feedback from its graduates and employers, to improve the growth and development of the College?

Yes, HIT-K has established a system to get regular feedback from graduate and employers for growth and development of the college.

5.3.5 How does the college involve and encourage students to publish materials like catalogues, wall magazines, College magazine, and other material? List the major publications/materials brought out by the students during the previous academic session.

The college encourages students to contribute articles to college magazine. These articles are edited and published in college magazine. Students are involved in various committee, such as college magazine committee, library committee, etc.

5.3.6 Does the college have a student council or any similar body? Give detail on its constitution, major activities and funding.

Yes, the institute has an elected Student Council. Each class section (consisting of 60 students) elects a Class Representative (CR). In the first meeting the CRs elect from among themselves Vice-President, General Secretary, Treasurer, and other office bearers. The President of the Student Counncil is a Member of Faculty nominated by the Principal.

The Student Council is responsible for organizing all technical, cultural and sporting events of the institute.

The Student Council collects funds from students at the rate of Rs 400 per year per student for organing these events and the institute provides an equal amount to the fund.

Composition of the last elected Student Council:

Post	*Name, year, stream*	*Mobile No.*
President	Prof. Krishanu Datta Assoc. Professor, Dept. of ECE	9830039964
Member (Ex-Officio)	Mr. Clayton M. Moses Academic Advisor & Head, Student Affairs Centre	9830078222
Vice President	Mr. Shankhadeep Sarkar, 4th yr ChE Roll No.: 115515	8335021794
General Secretary	Mr. Devjyoti Upadhaya, 3rd yr ME Roll No.: 125723	9775577077
Treasurer	Mr. Anand Priyadarshi, 3rd yr CSE-B Roll No.: 125174	674493562
Assistant Treasurer	Mr. Akash Dutta, 3rd yr ECE-D Roll No.: 1252188	9051300482
Convenor, ECLECIA	Mr. Srijan Kashyap, 3rd yr AEIE Roll No. : 125333	8583976153
Assistant General Secretary 1 (UG)	Kumar Anshuman, 3rd yr IT Roll No. : 125406	8334020051
Assistant General Secretary 2 (UG)	Mr. Vurikiti Prashant, 3rd yr ECE-B Roll No.: 125295	9641050010
Assistant General Secretary (PG)	Mr. Sourav Mitra, 1st yr M.Tech. VLSI Roll No.: 1496011	8972665115
Assistant Secretary-1 (Cultural)	Alhan Aziz Khan, 2nd yr ECE-A Roll No.: 1352026	9051440110
Assistant Secretary-2 (Cultural)	Mr. Prashant Parashar, 2nd yr CE Roll No.: 1358016	8100712901
Assistant Secretary-1 (Games & Sports)	Mr. Dipan Mondal, 3rd yr EE Roll No.: 125918	8017225927
Assistant Secretary-2 (Games & Sports)	Mr. Mrinmoy Dey, 3rd yr BT Roll No.: 125635	9903657203
Assistant Secretary (Literary)	Mr. Tanmoy Bagani, 2nd yr ChE Roll No.: 1355002	9051738337
Assistant Secretary (Club Co-ordination)	Mr. Aghadeep Saha, 2nd yr BT Roll No.: 1356033	9007953389

The constitution of the student's council is enclosed in **Annexure C.I**.

5.3.7 Give details of various academic and administrative bodies that have student representative on them. Provide details of their activities.

As a statutory requirement there are student members in the Anti-Ragging Committee of the institute. However, students are given opportunities to express their views on various academic and administrative matters when they meet Members of Faculty, HODs and the Principal.

5.3.8 Any Additional Information:

1) Wi-Fi connectivity throughout the campus.
2) Full-fledged branch of Punjab National Bank with ATM facility and having mobile banking facility on the campus.
3) Gym facilities are available.
4) Transport facility- Students from different areas of surrounding villages can make use of the college bus.
5) Canteen facility on the campus.

5.4 SWOC Ananlysis

Strengths:

- ➢ Strong motivations to students to organize and participate in various co-curricular and extra-curricular activities.
- ➢ Students are encouraged to participate in various games and sports.
- ➢ Student's involvement in all councils, committees, academics and administrative boards to discuss and provide help in their interests, performances and achievements.
- ➢ Excellent placement and training support for holistic development of the individual for personal enhancement and career growth
- ➢ Strong mentoring system to provide valuable advices to students by counselling and guiding them in their academic and non-academic needs.
- ➢ High students' success rate in GATE/ CAT/GRE / TOEFL
- ➢ Student workshops for softskill training as well as additional technical trainings are conducted regularly.
- ➢ Special tutorial classes are being held for weaker students and students admitted through lateral entry.
- ➢ Financial assistance is available for students from economically challenged background.
- ➢ Diverse student Diasporas ensure better social awareness.
- ➢ Complete ragging free campus has made studying here enjoyable.

Weaknesses

- Time constraint for academic, co- curricular and extra-curricular activities for few students due to long travlling time between home and institute
- Focused, and conceptualised reading is lacking in some students
- Communication skills among rural based students needs improvement.

Opportunities

- Execution of various programmes by planning and implementing developmental projects.
- Working in different awareness programmes thereby developing their character, social consciousness and commitment, discipline and healthy attitudes towards the society.
- Many of the neighbouring state students are opting for education in this state.
- Global demand for technical manpower is ever growing.

Challenges

- Effectively motivating the students in conducting and actively involving in most interdisciplinary activities
- To support the under-privileged / weak students

D.6 CRITERION VI: <u>Governance, Leadership and Management</u>

6.1 Institutional Vision and Leadership

6.1.1 State the Vision and Mission of the College:

Vision of the Institute:

To prepare dynamic and caring citizens to meet the challenges of global society while retaining their traditional values

Mission of the Institute:

➢ To prepare students with strong foundation in their disciplines and other areas of learning

➢ To provide an environment for critical and innovative thinking, and to encourage life-long learning

➢ To develop entrepreneurial and professional skills

➢ To promote research & developmental activities and interaction with industry

➢ To inculcate leadership qualities for serving the society

6.1.2 Does the mission statement define the College's distinctive characteristics in terms of addressing the needs of the society, the students it seeks to serve, College's traditions and value orientations, vision for the future, etc.?

The mission of the institute has been comprehensively designed with unique characteristic in terms of preparing students with strong foundation in their disciplines and other areas of learning. The mission of the Institute put forward 4 (four) significant characteristics that the student would acquire by undergoing the teaching-learning process as adopted by our Institute. It develops student's entrepreneurial and professional skills with strong focus on research and developmental activities and also provides an environment for critical and lateral thinking. Last but not the least, it also inculcate student's leadership qualities for serving the society at large.

6.1.3 How is the leadership involved in

➢ Ensuring the organization's management system development, implementation and continuous improvement
➢ Interaction with stakeholders
➢ Reinforcing culture of excellence
➢ Identifying needs and championing organizational development (OD)?

The Leadership hierarchy in our Institute is as follows:

Basic Organizational Structure (Organogram)
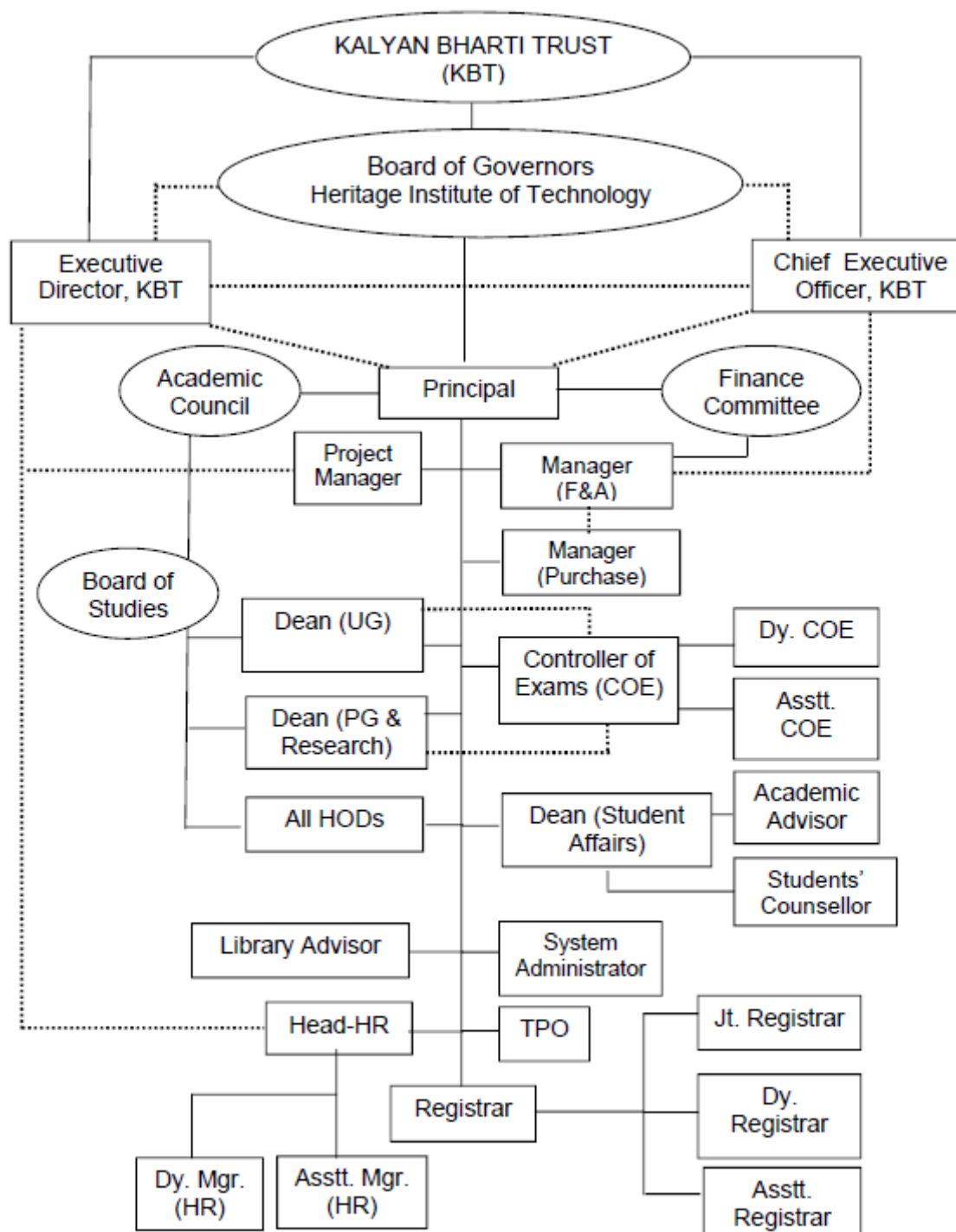
NB: Levels do not indicate positional status and hierarchy. Individual designations may change from time to time, with the approval of the competent authority, without disturbing the basic structure.

Ensuring the organization's management system development, implementation and continuous improvement:

The management of the Institute always looks for Vision and Mission of the Institution which are in tune with the objective of higher education policy of our country and aims to provide quality technical education to the satisfaction of our stake holders.

➤ **Interaction with stakeholders**

There is a mechanism in our Institute to obtain the feedback from the parents and this is analyzed by the Principal, Dean (UG), Dean (PG & Research), Dean (Student Affair) and HODs. After analysis a plan of action is prepared and forwarded to the Management for its approval.

There is also a regular feedback from students on all teachers at the end of each semester. The feedback is analyzed by the concerned HOD and appropriate course of action namely counseling of teachers, organizing faculty development program etc. is planned.

➤ **Reinforcing culture of excellence**

The management and the higher authorities of the Institute realize and encourage the fact that the vertical growth of the Institution in terms of transforming into a Centre of Excellence is necessary reinforcing research and innovation, well planned teaching – learning process etc. The Principal in consultation with Dean(s), the HOD prepares the action plan to bridge the knowledge gap by conducting seminars, workshops, industry oriented courses, guest lectures by leading academicians and industrialist and frequent visit of students to industries to develop their hands-on-training. The Principal, Dean(s), HODs and members of the faculty encourage the students to publish papers in National and International Conferences as well as to participate in workshops, Industry-Institute Interaction program.

6.1.4 Were any of the senior leadership positions of the College vacant for more than a year? If so, indicate the reasons.

None of the senior leadership position is vacant.

6.1.5 Does the College ensure that all positions in its various statutory bodies are filled and conduct of meetings at the stipulated intervals?

The statutory bodies such as Governing Body, Advisory Council, Academic Council, Board of Studies comprises of eminent personalities of institution of high repute as well as industries as per the guidelines framed by the UGC. The meetings of the

above statutory bodies are being conducted at stipulated intervals and minutes of the meeting are readily available. Any vacancy arising out, being taken care of immediately to fill up the vacancy.

6.1.6 Does the College promote a culture of participative management? If yes, indicate the levels of participative management.

The Institute promotes participative management. All major decisions are taken by the Principal in consultation with Dean(s), all HODs and senior members of faculty. Meetings with Dean(s), all HODs and senior members of faculty are being convened regularly.

6.1.7 Give details of the academic and administrative leadership provided by the University to the College?

The affiliating University nominates various eminent personalities for the Institute Governing Body, Academic Council and Faculties selection interviewes for giving various academic inputs which will improve the overall quality of education in the Institute in tune with the Vision and Mission of the Institute.

6.1.8 How does the College groom the leadership at various levels?

The main focus is on developing transformational leaders through giving freedom to do various activities independently at various levels. Professor, Associate Professor and Assistant Professors prepare plans in the departmental academic committee meeting for overall development of the department as well as development of various laboratories. Members of faculty also discharge additional duties like mentoring our students from 1st year to 4th year.

6.1.9 Has the College evolved any strategy for knowledge management? If yes, give details.

The Institute has a website where all up-to-date information is available. The Institute has an intranet facilities through which important information, document are shared. It may be noted that we are continuing to receive E-Journals & E-books through i) ASTM Digital Library, ii) IEEE (ASPP), iii) J-GATE (E&T, Mgmt), iv) RMIT, v) EPW and vi) SAGE Online. Besides, the Institute also subscribes for NPTEL, a joint initiative of IITs and IISc., Bangalore, funded by MHRD, GOI, thus allowing access to web courses and video courses, prepared by senior members of faculty of those institutes.

6.1.10 How are the following values reflected in various functions of the College?

➢ Contributing to national development
➢ Fostering global competencies among students

- Inculcating a value system among students
- Promoting use of technology
- Quest for excellence

Contributing to national development

- Establish themselves as professionals in industries/R&D laboratories/academic sectors, or engage in advanced studies.
- Demonstrate their ability to work successfully as a member of a professional team and function effectively as responsible professionals.
- Service to mankind through various activities namely organizing Blood Donation Camp, NSS Service, visit to village to provide education to underprivileged children.

Fostering global competencies among students

- Special emphasis is given to the development of soft skill in order to sustain in global competition.
- Subject experts from institution of repute and industry are invited to deliver special lectures on new trends in technology and development.
- Students are encouraged to get involved in different R&D and Industry oriented projects.
- The Institute has an Entrepreneurship Development Cell to encourage our students to do innovative research and to become entrepreneurs.

Inculcating a value system among students

- The Institute organize cultural and spiritual programs for the students
- The Institute offers a course on human values and professional ethics of credit: 2 to develop human values amongst the student community
- Rotaract Club of the Institute organize many social activities namely Blood Donation Camp, NSS Service, visit to village to provide education to underprivileged children.

Promoting use of technology

- Organizing number of workshops, seminars for the faculties of upcoming technologies
- Organizing International Conferences for the members of the faculty on cutting edge technology.
- Specialized training programs are conducted for technical staff, library staff etc.

Quest for excellence

- The Institute obtained NBA for all 6 eligible B.Tech. programs w.e.f. 18.09.2013 for a period of 2 years except CSE Department. CSE Department obtained NBA accreditation for a period of 5 years w.e.f. 04.02.2014.
- UGC has conferred fresh autonomous status to Heritage Institute of Technology, Kolkata under the "UGC autonomous colleges scheme" initially for a period of six years w.e.f the academic year i.e. 2014-2015 to 2019-2020.
- We follow well developed teaching-learning methodology

6.1.11 Give details of the UGC autonomous review committee's recommendations and its compliance.

UGC has conferred fresh autonomous status to Heritage Institute of Technology, Kolkata under the "**UGC autonomous colleges scheme**" initially for a period of six years w.e.f the academic year i.e. 2014-2015 to 2019-2020. The Institute has started functioning as autonomous institute from July 2014 and review will be taken up subsequently in due course of time.

6.2 Strategy Development and Deployment

6.2.1 Does the College have a Perspective Plan for development? If so, give the aspects considered in development of policy and strategy.

Yes. Institute has a Perspective Plan for development.
Aspects considered are given below:

Quality policy

- To compete with global benchmarking of excellence through efforts to prepare dynamic and caring citizens.
- To encourage and foster quality in daily practices in different areas of activity.
- To imbibe self-evaluation and continuous correction.

Teaching and learning

- Institute recruits well qualified, skilled and experienced faculty.
- Special lectures, seminars and workshops are arranged by inviting Elite personalities to present lecture on recent research topics for the students and faculties to enhance their knowledge.
- Encouraging faculty to go for higher studies.
- Institute encourages the students for participation through project work, research paper presentation, attending seminars and workshop in recent technologies.
- The academic progress of the students is continuously monitored by the continuous performance assessment in theory and practical tests.

Research and development

- ➢ Faculties are encouraged to pursue research by providing them individual system with internet facility and digital library.
- ➢ Supporting to publish technical papers in conferences and national and international journals in Local financial assistance for registration and travel.
- ➢ Students are encouraged to present papers in seminars and conferences in Local and outstation institutes.
- ➢ Encouraging faculty members to submit research proposals to various funding Organizations.

Community engagement

- ➢ To fulfill societal commitment, Rotaract Club of the Institute (Udaan) under the parent body Rotary Club of Mahanagar has been established, which is very active.
- ➢ Rotaract Club conducts programs like blood donation camps, tree plantation, relief and rehabilitation to disaster struck areas etc.
- ➢ Kalyan Bharti Trust, parent body behind Heritage Group of Institutions had received the third prize in the category of Best Communication Campaign (External Public) for the Heritage Calender in the All India Public Relations Society of India Award Ceremony 2015 held at Ahmedabad.
- ➢ The Institute has a a Social Awareness & Community Service Club (SPARSH).

Human resource planning and development

- ➢ The institution recruits faculty members and administrative staff members based on the guidelines provided by the university.
- ➢ The institution appoints qualified faculties and staffs through open advertisement and interview by expert committee.
- ➢ The recruited faculties are encouraged to attend faculty development program to enhance the teaching learning process.

Industry interaction

- ➢ The institute facilitates the experts from industry to interact with students by arranging guest lecturers to enrich them with the latest updates and its technicalities.
- ➢ Involvement of industry experts in academic activities like course planning for autonomy.
- ➢ A Memorandum Of Understanding (MOU) was signed between Heritage Institute of Technology, Kolkata (HIT-K) and Centre of Excellence for Green Energy and Sensor System (CEGESS), Indian Institute of Engineering Science and Technology, Shibpur (IIEST) with the objective of collaborative Research and Development activities on efficient solar cells development utilizing the

state-of-the-art laboratory facilities of CEGESS, IIEST, Shibpur and other relevant academic programmes such as conducting an M.Tech. course on 'Renewable Energy' at HIT-K .

Internationalization

➢ Various faculty members of the Institution have collaborative and joint research projects and have also jointly published their research work with their international partners.

6.2.2 Enunciate the internal organizational structure of the College for decision making processes and their effectiveness.

The Institute has various statutory committees where decision for handling several academic and administrative issues is taken under the chairmanship of Directors and Principal. Representatives from all communities of the institution even the representatives of the local bodies and other stakeholders participate in the meetings/programmes organized by such statutory committees.

Functions of Board of Governors

Board of Governors: Composition & Functions

S.No	Name of Member of BoG	Qualifications and position in the current engagements	Position in the BoG	Nominated by
Chairperson				
1	Shri P. R. Agarwala	B.Com., LLB, Chairman, Rupa & Co. Ltd.	Chairman	Kalyan Bharti Trust
Members of the ✓Trust/Society/Management				
2	Shri Vikram Swarup	B.M.E.(H), MD, Paharpur Cooling Towers	Vice-Chairman	Kalyan Bharti Trust
3	Shri Vishambhar Saran	B. E., Mining, Chairman, Visa Steel Ltd.	Member	Kalyan Bharti Trust
4	Shri H.P. Budhia	B.Com., Chairman, Patton International Ltd.	Member	Kalyan Bharti Trust
5	Shri N. P. Dalmia	B.Com, Director, Dalmia Securities Pvt. Ltd.	Member	Kalyan Bharti Trust
6	Shri Siddharth Swarup	PGDBM, BE, GM (Works) Paharpur Cooling Towers Ltd	Member	Kalyan Bharti Trust
Two faculty members of the Institution				
7	Prof. (Dr) N. P. Nayak	Ph.D., Professor & HOD, Dept. of Physica	Member	Principal, HIT-K
8	Ms. Satarupa Bagchi Biswas	M. Tech, Asstt. Professor & DC, Dept. of Information Technology	Member	Principal, HIT-K

One nominee of the AICTE				
9.		Regional Officer, ERO AICTE, Kolkata		
One nominee of the UGC				
10	Swami Atmapriyananda	Vice Chancellor, Ramkrishna Mission Vivekananda University	Member	UGC (Ex-Officio)
One nominee of the State Government				
11	Smt. Madhumita Roy	Additional Secy. Dept. of Higher Education Bikash Bhawan, 6th Floor	Member	Govt. of West Bengal
One nominee of the University to which the Institution is affiliated.				
12	Prof. Parameswar De	Ph.D., Ex-Professor, Ex. Professor & Head Dept. of Chemical Engg.	Member	MAKAUT
Head of the Institution, Ex-officio				
13	Prof.(Dr.) Pranay Chaudhuri	Ph.D., Principal, Heritage Institute of Technology	Member-Secretary	Kalyan Bharti Trust

Permanent Invitees

1. Shri H.K. Chaudhary, Chairman, Kalyan Bharti Trust
2. Shri Sajjan Bhajanka, Chairman, Century Ply Boards (I) Ltd.

Special Invitees

3. Shri Jaydeep Chitlangia, Chairman, Sarda Plywood Industries Ltd.
4. Prof. (Dr.) Sajal Dasgupta, Director of Technical Education, Govt. of West Bengal
5. Shri Probir Roy, Director, Kalyan Bharti Trust
6. Shri P.K. Agarwal, Chief Executive Officer, Kalyan Bharti Trust
7. Prof. B.B. Paira, Advisor – Higher Education, Kalyan Bharti Trust
8. Prof. K. K. Chaudhuri, Advisor, HBS
9. Prof. (Dr.) D.C. Ray, TEQIP – II Co-ordinator, HIT
10. Prof. Bimalendu B. Bhattacharya, TEQIP, nominee
11. Prof. (Dr.) S. Biswas, Deputy Director, HIT-K
12. Prof. B.R.Saha, Registrar, HIT-K
13. Dr. R. P. Sinha, Head – H.R
14. Shri Manoj Saraogi, Manager – Chief Finance Officer
15. Prof. (Dr.) Sidharta Roy, Dean UG & Controller of Examinations
16. Shri Arvind Srivastava, Joint Registrar

- To create teaching, administrative, technical and other posts under the Institute and to ratify appointments thereto for the efficient management of the affairs of the Institute and to regulate their recruitment and conditions of service, in accordance with the Statutes, Rules & Regulations of the Institute and the relevant provisions made by other competent authorities like AICTE, UGC, MAKAUT and the Govt. of West Bengal.

- To provide necessary guidance for effective execution of the instructional programmes and maintenance of proper academic atmosphere and discipline.

- To review the results of examinations and to suggest for academic improvements on the recommendations of the Academic Council

- To ensure that all information returns, reports and other materials as required by AICTE / UGC / MAKAUT or the Govt. of West Bengal are made available promptly to make sure that directions issued by MAKAUT are carried out expeditiously

- To hold, control and administer the properties and funds of the Institute

- To approve the Annual Budget on the recommendations of the Finance Committee and sanction expenditure as may be required

- To provide for promotion of welfare of students, their residences, health, recreation and sports and to exercise such supervision and control as will secure discipline, health and well being of the students

- To enter into agreements for and on behalf of the Institute which will be signed by the Principal as the Member Secretary of the Board of Governors.

- To appoint Committee(s) or Sub-Committee(s) for disposal of any business of the Institute or for rendering advice in any matter pertaining to the Institute.

- To delegate to such extent, as it may deem necessary, any of its powers to any senior member of faculty or Committee or Sub-committee constituted by the Board of Governors

- To perform such other additional functions and to carry such duties as may, from time to time, be assigned to it by the Kalyan Bharti Trust.

Copy of the Governing body minutes of 43rd meeting enclosed as Annexure C.3

Functions of Academic Council

Academic Council Members:

Chairman

    1.   Prof. (Dr.) Pranay Chaudhuri

Members

    2.   Prof. (Dr.) Madhurima Chattopadhyay (AEIE)
    3.   Prof. (Dr.) Srabanti Basu (BT)
    4.   Prof. (Dr.) Pinaki Bhattacharya (ChE)
    5.   Prof.(Dr.) Debarati De (Chem)
    6.   Prof. (Dr.) Tapas Sadhu (CE)
    7.   Prof. (Dr.) Subhashis Majumder (CSE)
    8.   Prof. (Dr.) Satadal Mal (EE)
    9.   Prof. (Dr.) Prabir Banerjee (ECE)
    10.   Prof. (Dr.) Suparna Chakraborty (Hum)
    11.   Prof. (Dr.) Tapan Chakrabarti (IT)
    12.   Prof.(Dr.) Anindita M. Bhattacharya (Maths)
    13.   Prof. (Dr.) Sukanta Sarkar (ME)
    14.   Prof. (Dr.) N.P. Nayak (Phy)
    15.   Prof. (Dr.) Siddhartha Ray, Dean (UG)
    16.   Prof. (Dr.) Subhabrata Sengupta, Dean (PG & Research)
    17.   Prof. (Dr.) A.M. Ghosh, Nominee BOG
    18.   Prof. Manoj Kumar Mitra, Nominee BOG
    19.   Mr. Ivan Saha, Nominee BOG
    20.   Prof. B.B. Paira, Nominee BOG

21.   Dr. Syed Rafikul Islam, Nominee WBUT
22.   Prof. (Dr.) Prasid Syam, Nominee WBUT
23.   Prof. (Dr.) Raja Datta, Nominee WBUT
24.   Prof. Krishanu Datta, Faculty Representative
25.   Prof. Kalarab Ray, Faculty Representative
26.   Prof. Sreeparna Dasgupta, Faculty Representative
27.   Prof. Nirman Ganguly, Faculty Representative
28.   Prof. Kalarab Roy, Member Secretary

➢ Scrutinize and approve the proposals of the Board of Studies with regard to courses of study, academic regulations, curricula, syllabi and modifications thereof, instructional and evaluation arrangements, methods, procedures relevant thereto, panel of examiners etc., provided that where the Academic Council differs on any proposal, it will have the right to return the matter for reconsideration to the Boards of Studies or reject it, after giving reasons to do so.

➢ Make regulations regarding the admission of students to different programmes of study in the Institute.

➢ Make regulations for sports, extra-curricular activities, and proper maintenance and functioning of the playgrounds and hostels.

➢ Make proposals to the Board of Governors for establishment of a new department / centre for study and research.

➢ Recommend to the Board of Governors proposals for institution of new programmes of study.

➢ Recommend to the Board of Governors institution of scholarships, studentships, fellowships, prizes and medals, and to frame regulations for the award of the same.

➢ Submit each year its Annual Report to the Board of Governors.

➢ Perform such other functions as may be assigned by the Board of Governors.

Functions of Boards of Studies

Composition:

Department-wise Boards of Studies (BOS) will have the following composition :

HOD concerned ………………………………………………… Chairman
All regular members of faculty of the department……………… Members

Two experts in the subject from outside the Institute ………..... Members
to be nominated by the Academic Council

One expert to be nominated by the Vice Chancellor …………… Member
from a panel of six recommended by the Institute Principal

One representative from industry / corporate sector / allied……. Member
area relating to placement

One meritorious alumnus to be nominated by the Principal……. Member
The term of nominated members shall be 2 (two) years

N.B.:
The Chairman, Boards of Studies may, with the approval of the Principal, specially invite:

a. Experts from outside the Institute whenever special courses of study are to be formulated

b. One Member of Faculty from each of the supporting departments

c. Other member(s) of staff of the same department.

➢ Prepare syllabi for various courses keeping in view the objectives of the Institute, interest of the stakeholders and national requirement for consideration and approval of the Academic Council.

➢ Suggest methodologies for innovative teaching and evaluation techniques.

➢ Suggest panel of names to the Academic Council for appointment of examiners.

➢ Co-ordinate research, teaching, extension and other academic activities in the department / Institute.

Functions of Finance Committee

Finance Committee Members:

1.	Prof. (Dr.) Pranay Chaudhuri -		Chairman
2.	Prof. (Dr.) S. Biswas	-	Member
3.	Shri Manoj Saraogi	-	Member

The Finance Committee will be an Advisory Body to the Board of Governors and will meet at least twice a year to:

➢ Prepare budget estimates before the commencement of the financial year.
➢ Shall maintain a watch over the progress of income and expenditure provided for in the Budget.
➢ Prepare revised estimate after the 2nd quarter of a financial year.

> ➢ Make necessary arrangement for auditing the accounts at the close of a financial year.

Functional areas of Deans :
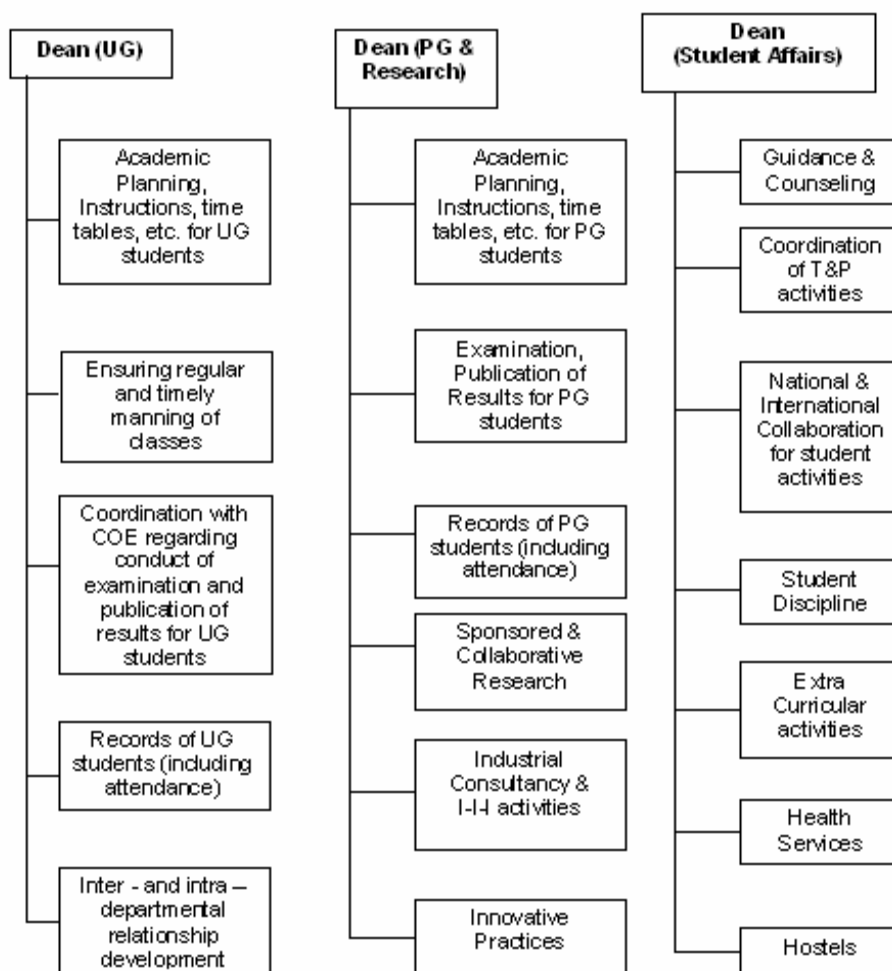
6.2.3 Specify how many planned proposals were initiated/implemented, during the last four years. Give details.

Title of the Project	Funding Agency	PI	Amount	Remarks
Post-Disaster Situation Analysis & Resource Mgmt.	ITRA	Dr. Pranay Chaudhuri, Principal	Rs. 43.55 lakh (out of Rs. 4.28 crore)	A multi - institutional research project jointly with IIT Kgp, IIMC, BESU, NIT Dgp & Kalyani GEC.
Development of capacitive type MEMS based bio-pressure sensor for assessing various physiological activities	SERB, DST	Dr. Madhurima Chattopadhyay, Dept. of AEIE	Rs. 14,34,000/-	Approved under FAST TRACK SCHEME FOR YOUNG SCIENTIST

Title of the Project	Funding Agency	PI	Amount	Remarks
Search for New Physics beyond Standard Model : Insights from LHC and neutrino experiments	SERB, DST	Dr. Abhijit Samanta, Dept. of Phy	Rs. 14,64,000/-	
Development of Process for the Production of Lactic Acid for Biodegradable Plastics	RPS, AICTE	Dr. S. Sengupta (BT) & Dr. R. Chatterjee (BT)	Rs. 10,50,000/-	AICTE funded projects
Computerized Control of Industrial Process by Developing Som based Self Tuning Fuzzy & Neuro-Fuzzy Controller	RPS, AICTE	Prof. Arabinda Kr. Pal (AEIE)	Rs. 8,75,000/-	AICTE funded projects
Conversion of De-proteinated whey to ethanol	RPS, AICTE	Prof. Sangita Bhattacharjee (ChE)	Rs. 13,67,000/-	AICTE funded projects
Study of Channel model and Non-Linear Effects in High Speed free space optical Local Area Network Link	RPS, AICTE	Prof. Siladitya Sen (ECE)	Rs. 19,00,000/-	AICTE funded projects
MODROBS	AICTE	Dept. of AEIE	Rs. 15,00,000/-	AICTE funded
MODROBS	AICTE	Dept. of ECE	Rs. 15,00,000/-	AICTE funded
MODROBS	AICTE	Dept. of ChE	Rs. 12,10,000/-	AICTE funded
MODROBS	AICTE	Dept. of IT	Rs. 11,00,000/-	AICTE funded
MODROBS	AICTE	Dept. of CSE	Rs. 9,35,000/-	AICTE funded
MODROBS	AICTE	Dept. of BT	Rs. 7,70,000/-	AICTE funded
MODROBS	AICTE	Dept. of Chemistry	Rs. 4,00,000/-	AICTE funded
Entrepreneurship Development Cell	AICTE		Rs. 7,50,000/-	AICTE funded
Industry Institute Partnership Cell	AICTE		Rs. 7,00,000/-	AICTE funded
Technology development of liquid phase adsorption of	NIT & DST	Dr. S. Basu (BT) with Co-investigators	Rs. 7,50,000/-	NIT & DST funded

Title of the Project	Funding Agency	PI	Amount	Remarks
mercury using low-cost adsorbent for better management of industrial wastes		from NIT, Dgp & Dept. of Ch.E., CU		
Isolation of mercury resistant microbes from industrial wasters and their application for heavy metal removal	UGC	Dr. S. Basu (BT) with Co-investigator	Rs. 85,000/-	UGC funded from Scottish Church College
Study of biochemical changes in aquatic algae due to heavy metals stress and their potentiality for bioremediation of heavy metals	US Govt. & GOI	Dr. S. Basu (BT)	12000 USD	(under Fullbright-Nehru Environmental Leadership Programme sponsored by US Govt. & GOI)

Proposals	Action Taken
Apply for Autonomous status under affiliating University	Achieved autonomous status under affiliating university.
Increase of intake in B.Tech(CSE) from 120 to 180	Intake increased from 120 to 180.
Increase of intake in M.Tech(CSE) from 18 to 36	Intake increased from 18 to 36.
Increase of intake in B.Tech(ECE) from 120 to 180.	Intake increased from 120 to 180.
Increase of intake in B.Tech (Civil Engg) from 60 to 120.	Intake increased from 60 to 120.
Increase of intake in B.Tech (Mechanical Engg) from 60 to 120.	Intake increased from 60 to 120.

6.2.4 Does the institution have a formal policy to ensure quality? How is it designed, driven, deployed and reviewed?

Yes, the quality policy of the institute is

- *To compete with global benchmarking of excellence through efforts to prepare dynamic and caring citizens.*

- *To encourage and foster quality in daily practices in different areas of activity.*

- *To imbibe self-evaluation and continuous correction.*

The quality is ensured and maintained through different bodies such as Executive Council, Academic Council, Academic Planning and Evaluation Board, Board of Studies, Examination Committee and Internal Quality Assurance Cell (IQAC).

Deployment   Website - http://www.heritageit.edu

➢ Brochures
➢ Display Boards
➢ Inauguration day of 1st year students
➢ Interaction meetings with parent, alumni and Industry Experts.

6.2.5 How does the College 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?

➢ Institute has a cell under the guidance of the Dean of Students Welfare where grievances/complaints related with students are taken care of.

➢ For rest of the stakeholders, all such grievances/complaints are taken care of by the Office of the Registrar.

➢ Anti-Ragging Committee and Anti-Ragging Squad are constituted for ensuring the directions of Hon'ble Supreme Court of India and Raghavan Committee Recommendation.

➢ The Grievance Redressal Committee having the following composition:

  - Prof. (Dr.) Pranay Chaudhuri, Principal
  - Prof. (Dr.) D.C. Ray, Former Jt. Director & Emeritus Professor
  - Prof. (Dr.) S. Biswas, Dy. Director
  - Prof. B.R.Saha, Registrar
  - Prof. Siladitya Sen (ECE)
  - Prof. (Dr.) Sulagna Chatterjee (ChE)
  - Prof. (Dr.) Madhurima Chattopadhyay, (AEIE)

➢ Internal Complaints Committee (against sexual harassment)- A policy against sexual harassment, as defined under The Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013, has been framed and duly approved by the Board of Governors, in terms of which there shall be an Internal Complaints Committee with at least 4 (four) lady members as under

- Dr. Sulagna Chatterjee, Professor & HOD, Dept. of ChE , Chairperson
- Dr. Siuli Roy, Professor & Director, CAC, Member (Faculty)
- Dr. Prabir Banerjee, Professor & HOD, Dept. of ECE, Member (Faculty)
- Dr. Sukanta Sarkar, Assoc. Professor & HOD, Dept. of ME, Member (Faculty)
- Dr. N. P. Nayak, Assoc. Professor & HOD, Dept. of Physics, Member (Faculty)
- Ms. Madhubanti Dutta, Dy. Manager – HR, Member (Admn.)
- Rtn. Mrs. Gomathy Venkateswar, Centre for Ecological Movement, Member (NGO Representative)

6.2.6 Does the college have a mechanism for analyzing student feedback on institutional performance? If yes, what was the institutional response?

Yes.

College obtains feedback from students.

➢ Alumni feedback.
➢ Exit feedback.
➢ Students feedback

Alumni feedback

➢ Alumni feedback is collected every year. It includes students experience in the institute along with what sort of improvements are required in syllabi, teaching and learning process, industry oriented programmes, seminars and workshops, Computer Facilities, Internet & Wi-Fi, Sports and Cultural facilities, Classrooms etc.

Exit feedback

➢ Exit feedback is taken to accommodate overall experience of a student in the institute. It includes attributes like library facility, guidance and support from the college, faculty availability and how quality of the academic programs can be enhanced.

Student's feedback

➢ Student's feedback is collected at the end of each semester.
➢ It includes attributes like course content and coverage, Presentation skill, regularity and punctuality, Interactive Teaching methodology, motivation skill, availability and approachability of each faculty.

> Principal and HODs check the performance of each faculty, if it is not satisfactory appropriate measures are taken by counseling, guidance from senior faculty, attending faculty development programs etc.

> Appreciation letters are issued for excellent teaching.

6.2.7 In what way the affiliating University helped the College to identify the developmental needs of the College?

> The affiliating University helps the Institute in its functioning by nominating its representatives on various bodies like Board of Governors, Academic Council, Board of Studies of various departments.

> The University maintains a software CWMS to update infrastructural facilities available to the Institute as well as the information for Faculty and Staff. After analysis of the Information given to the University Portal, the University sends the feedback to the concerned Institute. After receiving this feedback the Institute takes the corrective actions.

6.2.8 Does the affiliating university have a functional College Development Council (CDC) or Board of College and University Development (BCUD)?

If yes, in what way College is benefitted.

> The affiliating University has a full time Inspector of Colleges, who is available for consultation as and when necessary.

> The Institute benefits from the suggestion offered by the inspection team while introducing a new academic program, increase in intake, closure of course, and extension of approval of all existing courses.

> University nominates various educationists in various bodies like Board of Governors, Academic Council, Board of Studies, who provide suggestion about various academic matters which are in tune with the developments taking place in the University.

6.2.9 How does the College get feedback from non-teaching, teaching, parents and alumni on its functioning and how it is utilized?

> The feedback received from the students concerning the academic activities is reviewed regularly.

> The feedback received from the parents and industries in which our institution students are employed through placements is collected with the Management regularly.

> ➤ The feedback receive from alumni is considered while reviewing the teaching learning process.

The feedbacks concerned to academic activities are discussed in the College Academic Committee meeting and are taken into account with regard to the following:

- ➤ Budgetary allocations
- ➤ Infrastructure improvement
- ➤ Class Routine for the Academic Year

6.2.10 Does the College encourage autonomy to its academic departments and how does it ensure accountability?

Yes, the college encourages autonomy to its academic departments. Academic independence and autonomy is under the overall control of Board of Studies, Academic Council and Executive Council. The institute ensures accountability by following process:

- ➤ The head of the departments controls the department and departmental matters.

- ➤ Student's appraisal ensures they are satisfied or not regarding courses taught, faculty, library and laboratories.

- ➤ Annual Report is collected from each faculty at the end of academic year which includes records of publications, participation or organize conferences/workshop/seminars/special lectures, subjects taught, result analysis etc. This ensures responsibility of each faculty towards self-improvement as well as departmental improvement.

6.2.11 Does the College conduct performance auditing of its various departments?

Yes. The Institute has academic committee constituted as per guidelines of the UGC. The academic committee prepares the overall norms to be maintained in academic as well as administrative matter for every department. The performance of the students in internal examinations, mid semester examination as well as the end semester examinations are analysed across the departments and plan of actions is taken up for further improvement in this regard.

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?

The Institute has an active and efficient cell which assists the faculty members to apply for Faculty Development / Improvement Programs, research projects, seminars, workshop, refresher courses etc.
The Institute continually conducts Faculty Development Programs which help in improving the teaching methods and develop new teaching methodologies.

The Institute promotes participation of the faculty members in various technical and research Program organized by the institutions like IITs, J.U, NITs etc.

Eminent experts from India and abroad are invited to deliver talks for the enrichment of the faculty members.

The Management also provides as per need financial assistance both for the conduct of Seminars, Workshop etc. and for the participation of the faculty members irrespective of the fact whether they are in the aided-stream or unaided stream.

Each department conducts workshop, seminars, orientation programs for faculty members and non-teaching staff. The newly appointed staff is exposed to interact with the senior staff and Heads of the Department frequently in preparing the lesson plans, teaching notes, teaching methodology and class room control etc.

The faculty is also empowered through membership in various academic and professional Committees at national and international levels.

For the year 2016

Sl. No	Date	Program	Category	Guest	Fund
1	1/15/2016	Faculty Development Programme	Faculty Development	Dr.Harish Chaudhry of Management Edication Dept -IIT Delhi	12769

For the year 2015

Sl. No	Date	Program	Category	Guest	Fund
1	10th February, 2015	Industry Oriented Project Development	Workshop organised by IT Dept, HIT	1) Sandip Sadhukhan, Employed with Tech Mahendra.	Funded by TEQIP - II

2	17th march, 2015	Industrial Safety & HAZOP analysis	Workshop organised by ChE Dept, HIT	1) Mr Dipak Pahari, an eminent chemical engineer & industrial safety & HAZOP analyst.	Funded by TEQIP - II
3	18th -20th March, 2015	Workshop on operation and maintenance of Sophisticated Instruments for Technical Assistants	Workshop organised by BT Dept, HIT	1) Dr. Amit Kr De,from Dey's Medical	Funded by TEQIP - II
				2) Dr. Prabal Chakraborty, From Towa Optics(India) pvt. Ltd.	
				3) Dr. Sagarmoy Ghosh, Assistant Professor, Dept. of Microbiology. CU	
4	19th & 20th March, 2015	Workshop on Solitary waste management	Workshop organised by ChE Dept, HIT	1) Dr. R.N.Singh, CSIR Emeritus Professor & Formar Director, NEERI	Funded by TEQIP - II
				2) Dr. Kalyan Rudra, Chairman, Westbengal Pollution Control Board & Internationally acclaimed river expert.	
				3) Arunava Majumdar, Emeritus	

				fluride task force, WB.	
				4) Arun Kanti Biswas, Ministry of Environment & Forest Expert in West Bengal Pollution Control Board & Former Deputy Director , National Environmental Engineering Research Institute.	
				5) Somnath Narayan, Superintending Engineer, West Bengal Pollution Control Board.	
5	29th March, 2015	Distinguished Lectures on Chemical Engineering	Workshop organised by ChE Dept, HIT	1) Asit Kumar Das, Senior Vice President & Head, Reliance Technology Group, Jamnagar	Funded by TEQIP - II
				2) Mr. Ramachandra Dutta, Chief Inspector of Factories, Govt. of WB	
6	6th – 10th July, 2015	Embedded Systems and PCB Design	Workshop organised by AEIE Dept, HIT	1) Anup Kr. Sarkar, Asst, professor in Dream	Funded by TEQIP - II

				Baid Power Services Pvt. Ltd, Kolkata.	
				2) Arindam Sarkar,Expert of Baid Power Services Pvt. Ltd, Kolkata.	
				3) Sujoy Mukherjee, Research Scholar, Dept of Electronics and Telecommunication Engineering & Guest faculty of JU.	
7	7/20/2015	Faculty Development Programme on Presentation Skill	Faculty Development	British Council	32200
	7/21/2015	Faculty Development Programme on Presentation Skill			
	7/23/2015	Faculty Development Programme on Presentation Skill			
	7/24/2015	Faculty Development Programme on Presentation Skill			
8	6th – 12th August, 2015	Faculty Development Programme on "Image Processing and data mining using open source tools.	Workshop organised by IT Dept, HIT	1) Prof. M. Nordin Zakaria, Head, High Performance Computing Centre (HPCC) RIO.	Funded by TEQIP - II
				2) Mr. Mohammad Fazil Ahamat Jalauddin,	
				3) Prof. Amitava Chatterjee	

For the year 2014

Sl. No	Date	Program	Category	Guest	Fund
1	1/7/2014	Faculty Develpoment Programme	Faculty Development		
2	1/8/2014	Faculty Develpoment Programme	Faculty Development	By NITTTR	66012
3	1/9/2014	Faculty Develpoment Programme	Faculty Development		
4	13th – 15th January, 2014	International Conference on Applied Algorithm, (ICAA)	CSE & IT	1) Christos Zaroliagis', Professor, Department of Computer Engineering & Informatics, University of Paris. 2) Susanne Albers', Humboldt Universitat zu Berlin, Germany 3) Prof. Dimitrios Gunopulos', Professor, Department of Informatics and Telecommunication National and Kapodistrian University of Athens. 4) Rina Panigrahy,Microsoft Research, Mountain View, CA, USA 5) Prof. Bhargab B Bhattacharya, Indian Statistical Institute, Kolkata.	Funded by TEQIP - II
5	16th – 17th January, 2014	International Conference on Electronics Communication and Instrumentation (ICECI)	ECE & AEIE	1) Samar K Saha, Compact Modeling Suvolta, Inc, Usa Director 2) Prof. Shikharesh Majumdar ,Director Real Time and Distributed Systems Group & Associate Chair of Graduate Studies, Systems and Computer Engineering 3) Alex Mason, Reader in Smart Technologies at Liverpool John Moores University.	Funded by TEQIP - II
6	13th – 14th March, 2014	National Conference on Recent Trends in Power Engineering's	Workshop organised by EE Dept, HIT	1) Prof. (Dr.) D.P.Kothari, Ex. Director of School of Energy Studies, IIT Delhi 2) Prof. M.U.Deshpande, Mentor of TEQIP	Funded by TEQIP - II

Sl. No	Date	Program	Category	Guest	Fund
		(Electrical Engineering Department)		3) Mr. Arup Roy Choudhury, MD, NTPC	
				4) Prof. (Dr.) Swapan Goswami, EE, Jadavpur University.	
				5) Prof. (Dr.) Abhijit Chakravorti, EE, BESUS	
7	20th March, 2014	Professional Ethics : Honesty is still the beat policy	Workshop organised by Humanities Dept, HIT	1) Prof. Gopa Dutta, Lady Brabourne College also ex-VC Gour Bangla Univ, Malda	Funded by TEQIP - II
				2) Mr. Kunal Sarkar, Medical Practitioner	
				3) Mr, Samir Datta, Lawyer	
				4) Mr. Timir Baran Chatterjee, Senior Vice President DIC India LTD.	
8	27th March, 2014	Workshop on 'Occupational Health & Safety with related Environmental Issues'	Workshop organised by ME Dept, HIT	1) Dr. Amitava Mustafi, EX HOD & Prof. of Electrical Engineering-BESU & Ex Director NITTTR	Funded by TEQIP - II
				2) Dr. Tapas Kr. Gupta, Chief Engineer, West Bengal Pollution Control Board	
				3) Mr. Saroj Kumar Sarkar, Ex Superintending Engineer, West Bengal State Electricity Board.	
				4) Dr. P.K. Gangopadhyay An MBBS & Doctorate in Occupational & Environmental Health	
				5) Mr. Sujoy Ghosh, Consultant- Environmental Pollution.	
				6) Mr. Amar Nath Bhadra, Consultant-Boiler Safety	
9	4th April, 2014	Disaster Risk Reduction	Workshop organised by ChE Dept, HIT	1) Chandan Ghosh, Professor & Head, NDMA,	Funded by TEQIP - II
				2) Amit Chaudhuri, Former Joint Secretary, Disaster Management Department.	
				3) Anish Banerjee, Lead Technical expert, NDMA	
10	24th April, 2014	Foundry Equipmeny	Workshop organised by ME Dept, HIT	1) Mr. Bimal Kumar Basak, Director, The Wesman Engineering Co.	Funded by TEQIP - II

Sl. No	Date	Program	Category	Guest	Fund
11	7/9/2014	Computer Training	Staff Development	Mr.Somenath Sengupta - AP	4840
12	13th – 14th August, 2014	National Conference on Mathematical Traends in Physical Science(NCMTPS 2014)	Workshop organised by Mathematics & Physics Dept, HIT	1) Prof. Suman Chakraborty, IIT KGP 2) Prof. Tanuka chattopadhyay, CU, Astrophysics 3) Prof.R.N.Mukherjee, 4) Prof.Narayan Banerjee, IISER, Kolkata 5) Prof.Archan S. Majumdar, SNBNCBS, Kolkata 6) Prof.G.P.Rajasekhar, Fluid Mechanics, IIT KGP 7) Prof.Anjan Ananda Sen, Professor of Jamila Milia Islamia University 8) Prof.Sirshendu De, Fluid Mechanics, IIT KGP	Funded by TEQIP - II
13	1st September, 2014	How many is too many Quest for the sweet spot of collaboration in software development & Research	Workshop organised by CSE Dept, HIT	1) Dr. Subhajit Datta, Singapore Universitu of Technology and Design.	Funded by TEQIP - II
14	26th Sept. 2014	Faculty Development programme on Biotechnology and membrane science	Workshop organised by ChE Dept, HIT	1) Prof. Vincenza Calabro, University of Calabria, Italy. 2) Prof. Stefano Curcio, University of Calabria, Italy. 3)Dr. Sudip Chakraborty, Senior Research Scientist, University of Calabria, Italy.	Funded by TEQIP - II

For the year 2013

Sl. No	Date	Program	Category	Guest	Fund
1	1/4/2013	Encouragement of Faculty and Staff Development	For Faculty & Staff Development	Noble Laureate - Dr. Ei-ichi Negishi	Funded by TEQIP - II
2	1/6/2013	Encouragement of Faculty and Staff Development	For Faculty & Staff Development	Noble Laureate - Dr. Yuan T Lee	Funded by TEQIP - II

Sl. No	Date	Program	Category	Guest	Fund
3	24-01-2013 to 25-01-2013	Complex & Social Network	Workshop organised by CSE Dept, HIT	1) Dr. Niloy Ganguly, Associate Professor, IIT Kharagpur, 2) Dr. Anmimesh Mukherjee, Assistant Professor, IIT, Kharagpur, 3) Dr. Amit A.Nanvati, Senior Researcher, IBM 4) Dr. Sitabhara Sinha, Professor, Institute of Mathematical Sciences	Funded by TEQIP - II
4	2/1/2013	"Academic Excellence through CAQI"	Enhancement of Managerial Capacity - For Faculty Development (HOD & Faculty Members)	Prof.Manoj Das	24530
5	30th January to 1st February, 2013	Analytical Techniques for Characterization of Biological Macromolecules	Workshop organised by CSE Dept, HIT	1) Dr. Debi Prasad Sarkar, Professor, Department of Biotechnology, University of Delhi, 2) Dr. Debashish Mitra, Scientist 'G', National Centre for Cell Sciences (NCCS), Pune 3) Dr. Rabindranath Mukhopadhyaya, Former Scientist, Advanced centre for Treatment, Research and Education in Cancer	Funded by TEQIP – II
6	2/22/2013	"Computer Literacy"	Staff Development - Class -IV Staff	Mr.Arijit Chakraborty- TA CSE Dept	1272
7	2/22/2013	"From Instructor – led teaching to student – centric learning"	Faculty Development	Dr.Harish Chaudhry of Management Edication Dept - IIT Delhi	7764
8	6/27/2013	Motivation, Attitudinal Change & Personality Development"	Staff Development	Dr.Chandrima Banerjee, PhD (IIT Mumbai), an experienced trainer & Head - DSL.	22515
	6/28/2013	Motivation, Attitudinal Change & Personality Development"			
9	15th to 19th July 2013	Continuing Education Programme on " Machine Intelligence"	Workshop organised by IT Dept, HIT	1)Prof.Malay Kumar Kundu.(ISI Institute kolkata) 2)Prof C.A Murthy. ((ISI Institute kolkata)	Funded by TEQIP – II

Sl. No	Date	Program	Category	Guest	Fund
				3)Dr. Rajat Kr. Dey. ((ISI Institute kolkata) 4)Dr. Pradipta Majhi. (ISI Institute kolkata) 5)Prof. Mandar Mitra (CVPR ,ISI Institute kolkata) 6)Prof.Paramartha Dutta,Department of Computer and System Sciences,Visva Bharati University	
10	22nd -26th July 2013	Workshop on refresher course on algorithm organized by "Computer Science Engineering	Workshop organised by CSE Dept, HIT	1) Prof. Chandan Mazumdar.(Department of CSE of Jadavpur University) 2) Prof. Sarbani Mukhopadhyaya.(Department of CSE,BIT, Kolkata) 3) Prof Arijit Basu.(ACMU, ISI Kolkata) 4) Prof. Sudebkumar Prasant Pal.(Department of CSE , IIT Kharagpur) 5) Prof. Subhasish Majumder.(Department of CSE, Heritage Institute) 6) Prof. Subhas Chandra Nandy.(ACMU, ISI Kolkata) 7) Prof. Krishnendu Mukhopadhyaya.(ACMU, ISI Kolkata) 8) Prof. Prosenjit Gupta.(Department of CSE, Heritage Institute) 9) Prof.Arindam Biswas(Department of IT, BESU, Shibpur, Howrah) 10) Prof. Susmita Sur-Koley(ACMU, ISI Kolkata)	Funded by TEQIP – II
11	23rd to 24th July,2013	Conducting Education Programme For Teaching Assistants of ECE Department	Workshop organised by ECE Dept, HIT	National Small Industries Corporation LTD	Funded by TEQIP – II
12	7/25/2013	Orientation Programme	Faculty Development	Prof.Manoj Das	22830
	8/25/2013	Orientation Programme			
13	29th July to	Workshop on	Workshop	1) Jaya Sil.(Prof. CSE BESU)	Funded

Sl. No	Date	Program	Category	Guest	Fund
	31st July,2013	"Research Methodology" organised by Mechanical Engineering	organised by ME Dept, HIT	2) Dr. Bijan Sarkar.(Prof & former head of Production engg. Dept of Jadavpur University)	by TEQIP – II
				3) Dr. T.K Ghoshal.(Honorary Emeritus Professor of E.E dept of Jadavpur University)	
				4) S.P. Mukherjee. (EX proff. Of C.U)	
14	23rd to 27th September 2013	Workshop on Computational Biology & Protin Structure Prediction Organized by Biotechnology Dept	Workshop organised by BT Dept, HIT	1)Dr.Dhananjay Bhattacharyya, Saha Institute of Nuclear Physics,kolkata 2)Dr.Soumalee Basu, University of Calcutta 3)Dr. Rajgopal Chattopadhyaya, Bose Institute, kolkata	Funded by TEQIP – II
				4) Dr.Chhabinath Mondal, NIPER,Kolkata 5) Dr.Saikat Chakrabarti, Indian Institute of Chemical Biology, kolkata	
				6)Dr.Debnath Pal, IISc, Bangalore 7)Chitra Dutta, Indian institute of Chemical Biology, kolkata	
				8)Dr.Pinakpani Chakrabarti. Senior Professor & head, Centre of Excellence in Bioinformatics, Bose Institute,Kolkata	
				9)Rahul Banerjee, Professor,Saha institute of Nuclear Physics	
15	27th -28th September 2013	Workshop on "Energy Conservation Techniques in Industries	Workshop organised by ChE Dept, HIT	1)Joy Chakraborty, Divisional Engineer, WBREDA, Department of power and NES Govt. of W.B	Funded by TEQIP – II
				2)Amitava Chakraborty, Additional Director PCRA	
				3)S.Mohanta , Additional Director PCRA, ER	
				4) Abhijit Nayak, Assistant Director, National Productivity Council	
				6) P.K. Raychaudhuri, CRC and Director, PCRA, ER	

Sl. No	Date	Program	Category	Guest	Fund
16	24th - 25th October 2013	Workshop on Mobile computer & Wireless Sensor Network organized by "Computer Science Engineerings"	Workshop organised by CSE Dept, HIT	1) Prof.Iti Saha Misra, Professor, Department of Electronics & Telecommunication Engineering, Jadavpur University,Kolkata	Funded by TEQIP – II
				2) Prof.Debashis Saha, Professor, MIS & Computer Science Group, Indian Indtitute of Management, Kolkata	
				3) Prof.Krishnendu Mukhopadhyaya, Professor, Advanced Computing & Microelectronic Unit, Indian Statistical Institute, Kolkata	
				4) Mr.Debi Prasad Pati, CoE Lead, EntSol-NTDC	
				5) Prof. Nitul Dutta, Senior Associate Professor, Dept of Computer Science Engineering, Rajkot, Gujrat	
17	8th November, 2013	Higher Education in India Challenge Ahead	Workshop organised by ME Dept, HIT	1) Dr. Amitava Bose, Former Director, IIMC, Joka.	Funded by TEQIP – II
				2) Dr. Asis Banerjee, Former Vice Chancellor, CU	
				3) Dr. Sugata Marjit, Former Chairman, Westbengal State Council of Higher Education	
18	11/9/2013	Student Centric Learning	Faculty Development	Dr.Harish Chaudhry of Management Edication Dept - IIT Delhi	23667
19	12th-13th November, 2013	Workshop on VLSI Design and Technology	Workshop organised by ECE Dept, HIT	1) Prof. Susmita Sur Kolay.	Funded by TEQIP – II
				2) Prof. Chandan Kumar Sarkar.	
				3) Prof. Susanta Sen.	
				4) Prof. Madhav P.Deshai, from IIT Bombay	

For the year 2012

Sl. No	Date	Program	Category	Guest	Fund
1	29.06.2012	Prog 1- "Budgeting & Financial Management"	For Faculty & Staff Development (Principal;Director;Dy.Director;Jt.Director, Registrar, HOD-Non Academic & HOD & DC - Academic)	Dr. Gagan Pareek – Assistant Professor – MEC Dept.	Rs. 5500/-
		Prog 2- "Motivation"	For Faculty & Staff Development (HOD-Non Academic & HOD & DC - Academic)		
2	12.07.2012 13.07.2012	Selected Research Topics in Computer Science: Sate-of-the-art Perspectives	Workshop organised by CSE Dept, HIT	1) Dr. Sandeep Shukla, Professor, Bradley Department of Electrical and Computer Engg, Virgina Tech, USA,	Funded by TEQIP - II
				2) Dr. Prosenjit Gupta, Professor Heritage Institute of Technology,	
				3) Dr. Vishwani D. Agarwal, Professor, Department of Electrical and Computer Engineering, Auburn University, USA,	
				4) Dr. Partha Pratim Das, Professor, Department of Computer Science and Engineering, IIT, Kharagpur.	
3	17.07.2012 - 19.07.2012	Wireless Networking	Workshop organised by IT Dept, HIT	1) Prof.(Dr.) Bhabani P. Sinha, ISI, Kolkata	Funded by TEQIP - II
				2) Prof. (Dr.) Arobinda Gupta, IIT, Kharagpur	
				3) Prof. (Dr.) Sipra Das Bit, BESU	
				4) Prof. (Dr.) Krishnendu Mukhopadhyay, ISI, Kolkata	
				5) Prof.(Dr.) Nabanita Das, ISI, Kolkata	
				6) Prof. (Dr.) Bhaskar Sardar of Jadavpur University.	
4	21/07/2012	"Changing Role of Teachers"	Faculty Development	Dr.Harish Chaudhry of Management Edication Dept - IIT Delhi	39010

Sl. No	Date	Program	Category	Guest	Fund
5	21.08.2012 22.08.2012	Reliable Microwave Communication	Workshop organised by CSE Dept, HIT	1) Prof(Dr.)Kankar Subhra Dasgupta Director ,Indian Institute of Space Science Technology.	Funded by TEQIP - II
				2) Prof.(Dr.) Salil Kr Sanyal.ETCE Department,Jadavpur University.	
				3) Dr. Rajeswari Chattopadhyay, CEO , New Technology Application, Bangalore.	
				4) Shri Aloknath Chattopadhyay,MD, New Technology Application, Bangalore	

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?

➢ Various strategies adopted by the Institute include :

▪ Periodical Academic Audit
▪ Continuous Appraisal
▪ Presentation and Reporting before the Planning and Evaluation Committee
▪ Staff development programs for the skill up-gradation and training of the staff.
▪ Invitation of professional trainers to motivate the faculty members for self-evaluation and to find solutions for their strengths and weaknesses.

➢ The review of the performance appraisal reports has helped in understanding the strength and weakness of faculty members. The basic purpose of the appraisal is to motivate the staff.

➢ All the staff is encouraged to attend seminars and workshops and keep in touch with latest theories and concepts on their subjects.

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.

There are two appraisal methods adopted by the Institute. One is submission of Self Appraisal Report (SAR) and other is UGC prescribed Performa Based Assessment

(PBAS) Performa for Assessment Performance Indicator (API). Each faculty fills the SAR every year.

The benefits of the SAR and PBAS-API have lead to increase their aptitude in research performance, interest in seminar participation, and motivations for undertaking the University activities.

For non-teaching staff, the annual confidential reports are normally used for promotions and also to identify quality work among the staff and give promotions based on merit.

Every year for encouraging the faculty members the institute gives prize for faculty of the year based on teaching, research and other activities.

6.3.4 What are the welfare schemes available for teaching and non-teaching staff? What percentage of staff have benefitted from these schemes in the last four years? Give details.

The following are the welfare schemes available for teaching and non-teaching staff:
Free Bus facility at regular intervals is provided for the employees from Ruby Hospital Junction to college and back.

Maternity Leave: 120 Days

Medical Leave / Casual Leave / Earn leave: 10 Days/ 12Days/ 10 Days.

Duty Leave facility wherever applicable.

Provident Fund: 12% of (Basic + DA).
i) Facilitation of faculty participation in programs for professional development, organized by the College and also other agencies, through grant of leave and providing financial incentives.
ii) Organizing sports and cultural activities in which all staff can participate.
iii) Canteen facilities for students and staff.
iv) Outdoor activities including recreational picnic for staff.

6.3.5 What are the measures taken by the Institution for attracting and retaining eminent faculty?

The Institution has the following provisions to attract and retain eminent and talented faculties :

➢ Teachers have free access to Institutional facilities to carry out research work.

➢ The Institution meets all expenditures incurred by the teachers in presenting papers at National and International seminars, registration fees, TA, DA and other expenses including on-duty leave.

➢ The College funds seed money to short-term and long-term teacher-led student projects.

➢ Institutional support is provided to teachers who undertake funded projects.

➢ The institution encourages students and faculty to take up summer programmes in research institutes such NJ University, USA etc so that they get wider exposure.

➢ The faculty is deputed to undergo advanced training in National and Inter-National Research laboratories.

➢ Professors from reputed universities are invited to give guest lectures to enhance the research capabilities of faculty members and PG students.

6.3.6 Has the university conducted a gender audit during the last four years? If yes, mention a few salient findings.

Although there is no formal Gender Audit, however, gender data for faculty, technical staff and administrative staff are collected from the HR department. The enrolment data are documented and analyzed.

The male female ratio of Faculty: 151 : 91 (1.66 : 1)

The male female ratio of technical staff : 60 : 39 (1.54 :1)

The male female ratio of administrative staff : 38 : 9 (4.22 :1)

6.3.7 Does the university conduct any gender sensitization programmes for its faculty?

The college has an active "Sexual Harassment Against Women" Cell. Apart from members from different departments an NGO representative is included as a member of the cell. The various programs include conduct of seminars, workshops, lectures of eminent scholars and activists or a combination of these in the field of gender issues. University conducts gender sensitization programs for its faculty. Dr. Chandrima Banerjee, Head: DSL conducted a seminar and talk on "Women Empowerment and Gender Sensitization" for students as well as faculty members.

6.3.8 What is the impact of the University's Academic Staff College Programmes in enhancing the competencies of the university faculty?

The Academic Staff College has yet to be established in the University.

6.4 Financial Management & Resource Mobilization

6.4.1 What is the institutional mechanism to monitor effective and efficient use of financial resources?

a. Preparation of institutional & departmental budget and quarterly review.

b. Effective procurement system for various non-recurring & recurring expenditures

6.4.2 Does the college have a mechanism for internal & external audit? Give details

Yes, Internal Audit is assigned to a practicing Chartered Accountant firm and audit is conducted on quarterly basis for all the systems involved in various areas of operations. The report is submitted to the management on a quarterly basis and reviewed regularly for improvements. Further as required by the law Statutory Audit is also carried out every year.

6.4.3 Provide audited income & expenditure statement of academic and administrative activities of the previous for years.

Audited Annual Accounts for the financial year 2011-12, 2012-13, 2013-14 & 2014-15 enclosed (vide **Annexure C.2**)

6.4.4 Have the accounts been audited regularly? What are the major audit objections and how are they complied with?

Yes, the accounts have been audited regularly. No major objection has been raised so far.

6.4.5 Narrate the efforts taken by the College for resource mobilization.

a. Effective system of realization of fee, wherein there are no defaulting students.
b. Efforts are taken to ensure that there is no vacancy.
c. Sanction of grants by AICTE, TEQIP & various government authorities
d. Financial support from the Trust, whenever required

6.4.6 Is there any provision for the College to maintain the "Corpus Fund"? If yes, give details

The institution does maintain Corpus Fund namely the Development Fund & the Reserve Fund.

The balance as on 31st March 2015 is these accounts are as follows:

Development Fund- 274.09 lacs
Reserve Fund   - 336.36 lacs

6.5 Internal Quality Assurance System (IQAS)

6.5.1 Does the college conduct an academic audit of its departments? If yes, give details.

The college conducts in-depth academic audit of the respective departments by collecting information pertaining to various academic activities. Information is sought on the various courses offered by the departments, the curricula, the number of faculty members, the research activities carried out by the faculty members, the various conferences / workshops attended and invited lectures delivered by the faculty members, their publications in books, journals and conference proceedings, the performance of the students in semester examinations. Such information from all concerned departments is compiled in an annual report, which enables analysis of the performance during the year.

6.5.2 Based on the recommendations of academic audit what specific measures have been taken by the college to improve teaching, learning and evaluation?

Based on the academic activities of the respective departments compiled in the annual report, the college decides on the course offerings, the revision of the syllabi / curricula, the faculty strength, the evaluation process for students, the nature of conferences / workshops to organize / attend. Accordingly, the syllabi / curricula are revised, new faculty members are appointed, the examination rules are amended, the conference / workshop calendars are planned.

6.5.3 Is there a central body within the college to continuously review the teaching learning process? Give details of its structure, methodologies of operations and outcome?

The Board of Studies (BOS) of each department meets regularly during a year to review the teaching-learning process. Each BOS, chaired by the respective Head of the Department (HOD), consists of all faculties of that department, some faculties from other departments, and a few external subject matter experts from the academia and the industry. The recommendations of each BOS are placed before the Academic Council, chaired by the Principal, for final ratification and approval.

6.5.4 How has IQAC contributed to institutionalizing quality assurance strategies and processes?

The IQAC committee, chaired by the Principal, and consisting of various HOD's, some faculty members, senior officials and senior management of the college, deliberates on the various quality related issues involving the college. Recommendations / Suggestions from the IQAC are referred to the relevant statutory bodies of the college, like the Academic Council or the BOS, for further discussion / consideration and subsequent implementation.

6.5.5 Does the IQAC have external members on its committees? If so, mention any significant contribution made by such members.

No

6.5.6 Has the IQAC conducted any study on the incremental academic growth of students from disadvantaged sections of society?

No

6.5.7 What policies are in place for the periodic review of administrative and academic departments, subject areas, research centres, etc.?

The relevant statutory bodies of the college, like the Academic Council or the BOS, IQAC committee, carry out regular reviews of the manner in which these bodies function to identify opportunities for improvement. Necessary measures at appropriate levels are taken to ensure effective functioning of the constituent parts of the college.

Any other relevant information if any:

6.6 SWOC ANALYSIS

Strengths:

➢ By laws include service rules, admissions, programme regulations and financial & administrative delegation of authority and other important areas.

➢ Complete transparency in budgeting, incurring of expenditure, monthly expenditure and budget utilization reviews and finalization of external audited balance sheet.

➢ Adopted the ICAI standards of accounting as per UGC.

➢ The Finance is managed by the Finance Committee. Periodical review conducted by the Finance Committee and the Utilization of funds is subject to internal and external audits.

➢ Monitoring of Admission, Affiliation and academic programmes, Research and Development, Examination and Sports activities by highly qualified and experienced of the Institute.

Weakness:

➢ The Institute mostly relies on its own resources to support its academics and research and developmental activities.

➢ Limitation in government funding for research activities.

> Cadre ratio imbalance due to acute shortage of adequately qualified and experienced faculty.

Opportunities:

> The administrative process of the Institute is fully transparent, which enable the administrator to work with motivation for the benefit of the Institution.

> Partnership with more Industries and International organizations, which helps in faculty and student exchange, semester abroad programmes and internship at abroad universities.

> The Institution fulfils the major demand of the Country through technical education. In present scenario, our country requires ten times more engineering graduates for global need and this unprecedented demand opens new opportunities for developing administrative and management models to match quality with quantity and achieve inclusiveness, thus providing leadership to rest of India.

Challenges:

> Retention of senior faculty members and academic administrator.

> Quickly building robust infrastructure facilities as per growing demands of the Institution.

CRITERION VII: <u>INNOVATION AND BEST PRACTICES</u>

7.1 Environment Consciousness

7.1.1 Does the Institute conduct a Green Audit of its campus and facilities?

College has a committee headed by G.M. project, which monitors the various environmental activities in the campus. Since inception, the college has given importance to the growth of eco-friendly atmosphere in the campus. Thus the College has adopted various actions to retain the greenery of the campus and it has been observed that it produces a positive impact on the beholder and helps in developing an eco-friendly attitude in all.

7.1.2 What are the initiatives taken by the college to make the campus eco-friendly?

Following initiatives have been taken by the college to make the campus eco-friendly

➢ Upgrading of existing lighting system from conventional light to LED light to save power.
➢ All taps, flusher are monitored periodically, to minimize the water wastage.
➢ Paints and polish have been changed to eco-friendly paints and polish.
➢ To enable proper waste reduction, sewage treatment plant is installed in the campus where the waste water is recycled and used for campus irrigation.
➢ Solar power plants are installed with local utilization without battery backup.
➢ No Smoking Campus

Energy conservation:

➢ The light and fans are switched off by the security guard or staff after the completion of the last lecture of the day. Fans and light in the staff rooms are switched off when faculty moves out.
➢ Single switch is used to switch off room power supply of fans and light points.
➢ Created consciousness among the staff and students on energy conservation.
➢ Class rooms are constructed with sufficient ventilation and light so that the use of electricity can be minimized.
➢ Intimating staff and students to turn off lights and fans in hostel and college whenever not needed.
➢ There are large numbers of computers in different labs. LCD monitors are used in the labs to consume less energy. Most of the computers are modernized and updated.
➢ The UPS Batteries are maintained in good condition which reduces charging of current of batteries.
➢ Conservation & up keep of all existing plumbing system to prevent water loss in the form of leakages.

- Upkeep of all electrical equipment to prevent excess energy loss & short circuits.
- Installation, monitoring & upkeep of energy management system.
- Installation, monitoring & upkeep of automated water level controllers with solenoid valves to prevent excessive water loss due to overflow in water tanks.
- All the maintenance activities are controlled by computerised Maintenance System (CMMS).

Use of renewable energy:

- Two solar power plants are installed in the roof of the A-building and B-building and operating now to produce 100 KW capacities with local utilization without battery backup.
- 2 x 50 KW units with 2 string inverters are installed to generate the required power. Number of parts are 405 each @50 KW. The cost of the project is 2.0 crore, 1.0 crore, subsidy was received from the Jawaharlal Nehru National Solar Mission from the Ministry of New and Renewable Energies and State Government.
- The plant generates approximately 1.0 lacs unit every year to relieve the electricity board to some extent.

Check dam construction: NA

Efforts for Carbon neutrality:

- College provides bus and sumo facilities to the faculty and staff from Ruby to college and from college to Ruby with an aim to avoid the use of individual vehicles and thus reducing the carbon emission.
- More saplings are planted every year in various locations to reduce the carbon load.
- College campus is on its way to become 100% LED campus in country. Next to it, a 40W tube-light is being replaced with 12W with LED with same lumens and no loss of light. Moreover, a street lamp of 250W will be changed with 85W LED to save large number electrical units annually. Not only it will save electricity but it will also compress the carbon emissions that emits from tube light chokes.
- Electricity will be generated from solar energy that is being installed, with electricity as its backup.
- All the vehicles are regularly checked for pollution control to restrict carbon emission.
- The dead leaves and waste paper are not burnt in the campus and instead they are put into compost pits. The campus is totally plastic free.

Plantation:

- ➢ The campus is filled with greenery, in and around, with conscious efforts of the Institution. Approximately 2900 plants and trees are grown all over the campus.
- ➢ Well-trained team of 15 gardeners daily maintain the plantation within the Campus.
- ➢ 45% of the total open area is covered with trees.
- ➢ Water from recycled waste water from sewage treatment plant used for gardening.
- ➢ Regular plantation of new types of trees and plants to enhance beautification.

Hazardous waste management: The College does not generate any hazardous or radioactive wastes.

E-waste management: The College does not generate any e-waste. Computers, UPS and Printing systems are sent to specalised scrap dealers for safe disposal.

7.2 INNOVATIONS

7.2.1 Has the institution adopted any mechanism/ process for internal quality checks?

The college has adopted mechanism/process for internal quality checks through departmental and institutional administration, which supervise and monitor the conduct of academic and administrative activity regularly. The mechanisms/ processes are as follows:

    I.   Ensuring effectiveness in teaching
    II.   Uninterrupted teaching-learning
    III.   Effective learning
    IV.   Daily attendance monitoring of students
    V.   Ensuring uniform course coverage
    VI.   Effective evaluation
    VII.   Encouragement for R&D

These points are elaborately described as follows:

Ensuring effectiveness in teaching:

There are facilities of projectors and laptops in every department which the faculty can use whenever necessary during teaching.

Online faculty appraisal by students are conducted once at the end of each semester. These feedbacks are conveyed to each of the respective faculty. The

faculty with feedback scores that are not up to the mark are counselled. This innovative process increases the effectiveness in teaching and hence the quality.

Every department provides the following materials to the students to make them self-learners:

a. **Course materials:** This contain the syllabus and rudiments of each of the units in the respective subject, which provide the overall idea and depth up to which the study is to be carried out. Assignments are given to the students which contain questions and problems to be solved by the students which develops their learning and problem-solving ability.

b. **Laboratory manuals:** For every experiment and/or fieldwork manuals are provided. It contains Objective, theory, procedure, equipment or materials used, glimpses of analysis and results. This helps the student in performing the required job, extract the results and analyse them to draw conclusions.

c. **Visual aid:** Presentation of the subject topic in the classrooms and laboratories with visual aids such as projectors make learning the learning interesting and long lasting.

Uninterrupted teaching-learning:

Entrepreneur Resource Planning (ERP) system ensures uninterrupted teaching-learning process. Daily faculty attendance is linked innovatively to the attendance of the students during their allotted class as per timetable. This ensures that no class remains free without a teacher any day. If any faculty is on a leave then the concerned teacher or the HOD is required to make an alternative arrangement for taking his/her scheduled classes. This maintains the discipline and continuity of the course.

Effective learning:

In both the autonomous and affiliated modes of Heritage Institute of Technology, Kolkata (HIT-K), class tests are conducted twice in a semester which is leading to effective learning and self-assessment of the students. In addition, assignments are given in each semester per subject so that students develop the habit of self-study and solving problems. Weightage is given to class attendance as well. In the U.G. level the total marks for class test is 30 out of which 5, 10 and 15 marks are allotted to attendance, assignments and test scores respectively. This is promoting the student attendance and improving the academic environment.

Daily attendance monitoring of students:

In all the departments faculty mentors are assigned to individual students who monitor the attendance of each student under their mentorship. Problems of irregular and/or continuous absenteeism are reported to the parents of respective students. As per WBUT rules a minimum of 75% attendance is mandatory for being eligible to sit for the University Examination and Campus Interview. But students are advised to make attendance 100%.

Ensuring uniform course coverage:

HoDs and Departmental Coordinators (DCs) constantly monitor the progress of course coverage on both theory and sessional classes. This ensures uniform course coverage matching the mid-test requirements. They also ensure that the tutorials and assignments are regularly conducted as per time schedules. The college ensures maintenance of schedules for mid-tests and semesters.

Effective evaluation:

Evaluation in theory subjects are as follows:

> Class test marks: 30
> Semester exam marks: 70
> Total: 100

Encouragement for R&D:

The College aspires for excellence. This aim promotes research and development alongside quality teaching

7.2.2. BEST PRACTICE -1

i) **Title of the Practice:** Encouraging Faculty of the Institute through the Annual Award Program.

ii) **Objective of the Practice:**

- To create an environment of encouragement, motivation and recognition

- To boost satisfaction level of teachers that directly impacts the teaching – learning environment of the institute.

"Everyone inside them has a piece of good news. The good news is you don't know how great you can be...What you can accomplish! And what your potential is."

iii) The Context

In times, when quality seems a myth, it is a challenge to uphold the integrity of the work that we do. One's sense of engagement and satisfaction at work goes a long way in determining the output, both quantitatively and qualitatively. It is therefore important for an academic institution to develop such practices through which it can encourage, acknowledge and appreciate the efforts of those people who are steadily contributing and are quintessential to its growth. Such practices lead to a better academic environment in the institute.

iv) The Practice

On September 5 each year, the institute celebrates its Foundation day and it is on this day that the **Annual Awards of Excellence** are handed over to members of the faculty and staff.**Annual Award of Excellence** to deserving members of faculty and staff, are presented in the following five categories:

➢ outstanding teaching
➢ outstanding research accomplishments
➢ outstanding service to the HIT(Heritage Institute of Technology) Community
➢ outstanding contribution to public service
➢ to include the private sector and the non-government community and
➢ all-round excellent performance in a combination of two or more of the above areas

v) Evidence of Success

The Institute boasts of well qualified faculty and staff.

➢ With every passing year, the selection committee is finding it more and more challenging to select one out of many nominations for the awards. This is testimony of the increasing level of motivation, not merely for the sake of winning the award, but more for the sake of their research or teaching getting recognition.

➢ While they pursue their efforts to achieve knowledge and excellence in their respective fields of expertise, faculty members are sometimes required to associate with other institutes (national / international) for carrying out

research activities. During such time, the faculty at times has opportunity to take up more lucrative offers. However, a strong sense of attachment and belongingness is the reason for them not to break their ties with this institute. It can be said with much confidence that mutual recognition and admiration of one's contribution leads to a positive bonding between the college management and the faculty.

vi) Problem encountered and Resources required

No problems in particular had to be encountered to kick-start this practice as the college management was more than keen to do its bit to encourage and motivate their faculty and staff.

Regarding requirement of resources, a committee is formed to look into details such as budget approvals, inviting nominations, setting up jury etc.

7.2.3 BEST PRACTICE 2

i) **Title of the Practice:** Holistic education of students to enhance their employability and ensure inculcation of other professional and personal skills.

ii) **Objective of the Practice:**

➢ To not only aim at making them employable but also ensure inculcation of emotional, cognitive, corporal, and social values.

➢ To achieve high placement records.

iii) **The Context:**

Students, in these era of globalization, are immersed in thoughts of fulfilling their professional and material aspirations. In this process, they at times do not adhere to certain basic dos and don'ts of professional as well as personal life. The institute considers this its responsibility to groom the students to face challenges in life in the right manner and spirit.

iv) **The Practice:**

Along with courses in English language, Language Laboratory (since First year of B.Tech),which aim at improving English Language skills, students are offered a variety of other Humanities courses such as Values and Ethics in Profession, Organization Behaviour, Economics for Engineers, Principles of Management etc. These courses cover a wide gamut of preparation that one must have to succeed in all endeavours in life. A new course titled 'Personality Development' will be introduced in the Third year

B.Tech curriculum of 2016-2017 that will expose students to several key aspects of psychic grooming.

v)   Evidence of Success:

A well placed alumni is clear evidence of the success of this endeavour. Moreover, high placements records and feedback about students from placement companies adds further to the conviction.

7.3 SWOC ANALYSIS

STRENGTHS:

➢ Eco-friendly campus.
➢ Autonomous Institution
➢ Entrepreneur Resource Planning (ERP) system ensures uninterrupted teaching-learning process.
➢ TEQIP Phase II is supporting the institute.
➢ New Examination System under autonomy ensuring timely examination and declaration of results.
➢ Two language labs, equipped with state-of-art facilities, are the assets of the Institute. Courses involving language lab provide students with sample Opportunities to develop their communication skills and overall personalities.

WEAKNESSES:

➢ Lack of consultancy projects funded by industries and Government.
➢ Limited number of senior faculty with industry experience.
➢ Large number of students from vernacular medium.

OPPORTUNITIES:

➢ To setupa well-equipped sewage water treatment to treat waste water.
➢ Use of valuable inputs from alumni to improve in academics, research and placements in industries and institutes.

CHALLENGES:

➢ Install more solar power plants to fulfil 100% electricity requirement of the campus.
➢ Encouragement of R&D by proper funding
➢ Conducting smooth examination in parallel systems under 1) autonomy and 2) under MAKAUT (formerly WBUT).
➢ Introduced flexible competency based curriculam.