Basavarajeswari Group of Institutions

BALLARI INSTITUTE OF TECHNOLOGY & MANAGEMENT

(A Unit of T.E.H.R.D. Trust®)
(Recognized by Govt. of Karnataka, approved by AICTE, New Delhi,
Affiliated to Visveswaraya Technological University, Belgaum)

"Jnana Gangotri" Campus, No.873/2, Bellary-Hospet Road,
Near Allipur, Bellary – 583 104 (Karnataka)

Self-Study Report (SSR)

-: Submitted to :-
National Assessment and Accreditation Council (NAAC)
PO Box No. 1075, Nagarabhavi, Bangalore – 560072

August 2014

NAAC - Self Study Report

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Basavarajeswari Group of Institutions

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BALLARI INSTITUTE OF TECHNOLOGY & MANAGEMENT

NBA Accredited Institution*

(Recognised by Govt. of Karnataka, approved by AICTE, New Delhi & Affiliated to Visvesvaraya Technological University, Belgaum)

"Jnana Gangothri" Campus, # 873/2, Bellary-Hospet Road, Near Allipur, Bellary-583104. Karnataka State, India.

Ph: 08392-237100 / 190, Fax : 237197, Principal - 99024-99388, e-mail : bitmbly@gmail.com, web : www.bitm.edu.in

CERTIFICATE OF COMPLIANCE

(Affiliated / Constituent / Autonomous Colleges and Recognized Institutions)

This is to certify that **Ballari Institute of Technology & Management, Bellary** fulfills all norms.

1. Stipulated by the affiliating University - VTU, Belgaum
2. Regulatory Council / Body - AICTE
3. The affiliation and recognition is valid as on date.
4. In case the affiliation / recognition is withdrawn by the authority concerned the same will be informed to NAAC immediately.

In case the affiliation / recognition is conditional, then a detailed enclosure with regard to compliance of conditions by the institution will be sent.

It is noted that NAAC's accreditation, if granted, shall stand cancelled automatically, once the institution loses its University affiliation or Recognition by the Regulatory Council, as the case may be.

In case the undertaking submitted by the institution is found to be false then the accreditation given by NAAC is liable to be withdrawn. It is also agreeable that the undertaking given to NAAC will be displayed on the college website.

Date: 26.08.2014
Place: Bellary

Dr. U.Eranna
Principal

A Unit of T. E. H. R. D. Trust ®, Bellary. An ISO 9001 : 2008 Certified Institution

BASSU/ BITM LETTER – APRIL 2014.docx

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A. PREFACE

Background of the Institution

Ballari Institute of Technology & Management (BITM) is a self-financing Institute established in the year 1997 by *Late Smt Basavarajeswari,* Founder Chairperson & Former Union Minister under Tungabhadra Education Health & Rural Development Trust (R), Bellary (T.E.H.R.D. Trust). The trust also runs other institutions offering KG to PG. The **Mission** statement of the trust is *"To provide quality education, human service, uplifting of rural people, which enables them to become citizens of the country"* and the **Vision** is *"To be in the forefront of development in education at the level of medical, technical, both at primary and secondary school, degree, post graduation and to reach the higher standards in par with other trusts, with a social, economical uplift, in this backward region of Karnataka".*

This institution established with the purpose of providing quality higher technical education to the youths, with the ambience of absolute calm and tranquility along with its comprehensive infrastructure facilities of an urban centre and experienced staff, attracting many parents and wards from all over the country.

BITM was founded in the year 1997. The institute is affiliated to Visveswaraya Technological University, Belgaum (Karnataka) and is recognized by the All India Council for Technical Education (AICTE), New Delhi.

This campus is located on NH-63 and is well connected to road and railway facilities from Bangalore, Hubli, Raichur, etc.

BITM has an ISO 9001:2008 certification from Intertek. CSE, ECE and ME Departments offering Bachelor degree programmes have been accredited by NBA.

BITM is one of the few institutes with faculty- student ratio of 1 : 15 and a track record of excellent academic results.

The institute is a participant of the Technical Education Quality Improvement Programme (TEQIP), an initiative of the Government of India.

All the departments have qualified and experienced faculty, over 95% of them being postgraduates or Ph.D., holders. Some of the distinguished features of BITM are: State-of-the-Art Laboratories, Individual computing facility to all faculty members, Campus-wide networking connecting more than 900 computing systems to the net.

All research departments are active with sponsored projects and more than 20 faculty members are pursuing Ph.D.

The Centre for Advanced Training and Continuing Education, Centre for Research and Industrial Consultancy, and Entrepreneurship Development Cell have been set up on campus.

BITM has a strong Placement and Training Department with a committed team, a fully equipped Sports Department, Large Air-conditioned Library with over 79,000 books with subscription to more than 105 International and National Journals. The Digital Library subscribes to several online e-journals like IEEE, JET etc.

BITM has a modern auditorium, several hi-tech conference halls, Board Rooms, all air-conditioned with video-conferencing facilities. It has excellent hostel facilities separately for boys and girls.

BITM Alumni have distinguished themselves by occupying high positions in India as well as abroad and are in touch with the Institute through an active Alumni Association.

BITM is ranked 96th position in all India ranking of Engineering Colleges by Outlook Survey 2013.

As per June 2011, "CAREERS 360" Magazine India's Best Engineering Colleges 2011
BITM is RATED as 'A+' in the State, the only college in Gulbarga Region.

Courses:
BITM is one of the premier institutions in the country imparting quality education in the field of Engineering, Technology and Management.

BITM offers 05 UG Programs (4 years, B.E program), 05 PG Programs (2 years M.Tech., program), M.B.A. (2 year program) and M.C.A. (3 year program). All the programs offered by our institution are approved by AICTE and CSE, ECE and ME are accredited by National Board of Accreditation and affiliated to Visveswaraya Technological University (V.T.U.).

The following courses are Permanently Affiliated to VTU, Belgaum, subject to Government approval.
1. ECE, 2. CSE, 3. ME and 4. MBA

The institute has grown by leaps and bounds and at present it offers Under Graduate Programmes and a Post Graduate Programme in Engineering.

Courses	Intake	I Year	II Year	III Year	IV Year	Total
Under Graduate						
Electronics & Comm. Engg.	180+9	139+9	151	134	143	576
Computer Science & Engg.	120+6	118+6	135	123	57	439
Mechanical Engg.	240+12	203+12	151	67	68	501
Information Science & Engg.	60+3	32+3	52	49	48	184
Electrical & Electronics Engg.	120+6	86+6	151	76	66	385
Total	**720+36**	**578+36**	**640**	**449**	**382**	**2085**

Post Graduate						
Computer Network Engg	18	15	18	--	--	33
Computer Science Engg.	24	22	0	--	--	22
Digital Electronics	24	24	18	--	--	42
VLSI Design & Embedded Sys.	18	18	18	--	--	36
Design Engg.	18	18	13	--	--	31
MBA	180	87	91	--	--	178
MCA	60	32	22	41	--	95
Total	**342**	**216**	**180**	**41**	**--**	**437**

Research Centers recognized by VTU leading to Ph.D. / M.Sc. (Engg.) are offered in:
1. Mechanical Engineering
2. Computer Science & Engineering
3. Electronics & Communication Engineering
4. Chemistry
5. Physics
6. Mathematics
7. MBA

Research Strengths of BITM: Both faculty and students of BITM are very actively involved in research and published Research Papers in International and National Journals also Papers in International and National Conferences. Faculty members have also participated in Research and Consultancy Projects.

BITM has very good industry interaction and has signed around 03 MoUs with various Industries and other Research Organizations.

Undergraduate and Postgraduate students have participated with faculty in many research projects and have published research papers in Journals and Conferences. Faculty of BITM has applied for patents and expected to get the same at the earliest.

The Placement record of BITM is more than 75% for last 5 Years. Top companies visited BITM every year.

MoUs with Research Organizations and Industries: BITM has signed MOUs with Industries which include Infosys, Wipro, Reliance, Texas Institute and MOUs have been signed with research organizations.

International / National Conferences Conducted:
As a part of Decade Celebrations of BITM, national / international events are organized by BITM. Every year national level conference / workshops / MDP's / FDP are conducted to provide the platform for exchange of ideas among the students.

The student population of the college for the year 2013-14 is over 2522 and about 4000 technocrats graduated from the institute during the last 17 years. Our students have secured a few top ranks in the University examinations competing with the students from other established institutes.

Academic Faculty:

The institute has an excellent team of well-qualified, experienced, young and competent faculty as per AICTE and VTU Norms. Human Resource Development is a high priority at BITM. In addition to conducting annual orientation Programmes, the institute actively encourages its staff to pursue higher studies and engage in research. The highly motivated staff members are actively involved in teaching, research, training and continuing education Programmes. The final year undergraduate students undertake different project work utilizing the extensive facilities available in departmental workshops and laboratories and nearby industries, which enable them to develop models / processes or to conduct simulation studies. Some of their project works are industry oriented and several public sector and private sector industries and organizations have offered support in projects of our students, who did successfully with a lot of appreciation from the organizations.

The Details of the Faculty:

SN	Department / Course	Prof	Asso. Prof	Asst. Prof	Total No. of Full Time faculty in position
01	Computer Science & Engg.	04	03	24	31
02	Mechanical Engg	03	03	28	34
03	Electronics & Comm. Engg.	04	02	24	30
04	Electrical & Electronics Engg	01	01	18	20
05	Physics	01	00	05	06
06	Chemistry	01	00	05	06
07	Mathematics	01	02	07	10
08	MBA	01	0	17	18
09	MCA	0	01	11	12
10	Applied Science	0	0	12	12
	GRAND TOTAL	**16**	**12**	**151**	**179**

Library: The institute has a separate Library with Digital Library Service System and this is upgraded by about 2000–5000 new volumes every year. In addition, the library subscribes to over 100 technical journals, online journals as per VTU e-consortium / AICTE both national and international, other than general and popular magazines, weeklies, monthlies, newspapers, etc., Library is opened from 9.00 am to 10.00 pm on all working days.

A. Total area of the library — 1640 Sqm.
B. Seating capacity of the library — 500 Students
C. Reprographic facility (yes / No) — Yes
D. Working hours of library — 9 am to 6 pm
E. Library Networking facility (yes / No) — Yes
F. Usage data of the library (in terms of books issued to the faculty and students etc.) — Faculty : 10 Books Students: Under Book Bank Scheme - 06 + 02 Books.
G. Annual library budget (% of annual student fee collected) — 3.3% (i.e., Rs.10 Lakhs)

Executive Summary

(a) Curricular Aspects:
> BITM adopted Outcome based Education into practice and the OBE based curriculum development is implemented. The curriculum of the University of our Programmes is frequently fine-tuned /upgraded to meet the needs of Industry and current research. Further, our Industry tie-ups, and Co-curricular activities makes the students more competitive and Industry ready. Good number of events / programs on soft skills and professional development are conducted within the campus to enrich the skills of our students.

(b) Teaching-Learning Evaluation:
> The Teaching-Learning methodology is strictly followed as per our documented ISO practice and an outcome based education. The continuous evaluation of teaching-learning process is carried out through the Internal / External audits. The typical teaching practice is divided into Theory: Tutorial: Practical: Self-study components / assignments.

> The teaching-learning process involves traditional black board teaching, usage of PPTs in the class rooms, facilitating online learning, and project/game/activity based learning, design based experiments. The evaluation consists of Internal Evaluation (IE - 20% weightage of total marks).

(c) Research, Consultancy and Extension:
> Around 20% of our faculty members are participating in Enhancement of R&D and Institutional Consultancy activities.
> 75% of our faculty members are participating in many of the Faculty Development Programmes for improved competency. BITM has conducted faculty development programmes in the specialized areas of Engineering.
> BITM has R&D centers with students guided by our professors.
> Both faculty and students of BITM are very active in research. To facilitate the R&D / Consultancy activities, BITM has set up the Centre for Advanced Training and Consultancy (CATCE), Entrepreneurship Development Cell and Centre for Research and Industrial Consultancy. The students and staff are actively participating in the extension activities through NSS/Cultural/Sports.
> As access to online journals to facilitate research.

(d) Infrastructure and Learning Resources:
> The physical infrastructure includes more than 66 class / tutorial rooms of 4502.7 Sq. mts, spacious laboratories of around 5,250 Sq. mts, and library of around 1644 Sq. mts.

> Further, separate Boys common room, Girls Common room, Sports and Gym facilities and adequate Hostel facilities are available in the campus. The library has more than 75000 volumes, 7900 titles of books, 106 International / National Journals, e-Journals as per AICTE norms, Digital

library with more than 15 computers, reading rooms and other facilities. Also e-Books are subscribed by BITM.

(e) Student Support and Progression:

> An efficient mentoring system headed by the Mentor at the Department level is in practice. Every faculty is assigned with 25 students and they are continuously monitoring the academic / personal activities of the students. The progress reports are sent to the parents periodically. Further, a good support for Sports, Extra-Curricular activities and Co-curricular activities is given to the students. The vertical progression of students from one year to another year is strictly followed.

(f) Governance, Leadership and Management:

> A progressive, forward looking and enthusiastic management of BITM is leveraging to the academicians to carry out the academic activities of the Institution. The Governing Body of our institution comprises among others, viz.,

SN	Nominated Position in Governing Council	Name of the Member	Date of App.
1	Chairman	Dr.Yashvanth Bhupal, MS, Ph.D., MIE, Chairman & Director, BITM, Bellary	31.05.2008/ 15.02.2010
2	Member	DR. S.J.V.MAHIPAL, MBBS,MD, No.35, 3rd Cross, Gandhinagar, Bellary – 583 103.	01.01.1998 Reappointed on 31.05.2008
3	Member	Sri. S.B. Ashok Bhupal, BA Dhadesugur – Post, Sindhanur - Tq., Raichur-Dist.	01.01.1998 Reappointed on 31.05.2008
4	Member	Prof. Prithviraj.Y.J, B.E., M.Tech. Dy. Director, BITM, Bellary	31.05.2008
5	Member	Sri. N. Srinivasan, CA Chartered Accountant, 132, 2nd Floor, Kantha Court, Lalbagh Road, Bangalore.	02.04.2005
6	Nominee of AICTE – Regional Office (Ex-Officio)	The Regional Officer/ Dy. Director & Member Secretary, All India Council for Technical Education, (SWRO), Bangalore.	05.02.2004
7	An industrialist/ Technologist/ Educationalist from the Region to be nominated by the concerned Regional Committee as nominee of the Council, out of the panel approved by the Chairman of the Council.	Prof. E.S. Rao, BE, DIIT, M.Tech. 302, Sai Mansion, 191/B, B.K. Guda Park, S.R. Nagar, Hyderabad – 500 038	25.06.2002
8	Nominee of the Affiliating Body/ University/ State Board of Technical Education.	Dr.Mohan Kumar, Principal, SDMCE, Dharwad	01.03.2014
9	Nominee of State Government – Director of Technical Education/ Director of Medical Education/ Drugs Controller (Ex-Officio)	The Director of Technical Education Board, Govt. of Karnataka, Palace Road, Bangalore.	04.12.2003/ 31.01.2007

10	An Industrialist Technologist/ Educationalist from the Region nominated by the State Government.	Prof. A. Jayakara Hegde, B.E., M.Tech. D.No.2-112, Bantwady Post, Via Trasi – 576235, Senapur Village, Kundapur-Tq., Udupi Dist.,	23.01.2003
11	Principal/ Director of the Concerned Technical Institution (as nominee of the Society/ Trust). Member Secretary.	Dr. U.Eranna, B.Tech., M.E, Ph.D., Principal – Member Secretary, BITM, Bellary	15.02.2010

The Industry Advisory Board:

1	Dr. Yashvanth Bhupal Chairman & Director	Chairman
2	Prof. Prithviraj. Y.J Dy. Director, BITM	Member
3	Dr. Ramesh Gopal, Managing Director, Krishna Stone Tech. Bellary	Member
4	Mr.S.N. Rao, Director Shatavahana Ispat Limited, Hyderabad	Member
5	Mr. Nisar Ahmed Vice President, IBM India Limited, Bangalore	Member
6	Mr. P.K. Sarkar Vice President, TQM & Innovation JSW Steel Limited, Bellary	Member
7	Mrs. Seema Sali, Sr. HR Professional and Alumnus of IIMC	Member
8	Mr. Bapuji Chikkanagappa Head HR, Reliance Digital, Mumbai an Alumnus of XLRI	Member
9	Mr. Sriram Iyer, Principal Consultant, Retail Enablers, Reliance Retail, Bangalore	Member
10	Dr. G.P. Dinesh Dean, BITM-DMS	Member Secretary

The delegation of powers at all levels is clearly defined and strictly followed.

(g) Innovation and Best Practices:

    (i)   Web based Student Information System
    (ii)   Mentor System
    (iii)   Digital Classrooms for PG
    (iv)   Remedial Teaching

A detailed SWOT analysis was carried out in a structured manner involving all the faculty and staff members and this analysis together with the core values of BITM formed the basis for developing a strategic plan to evolve the Vision of our Institution. Further, the industrial / economical development plans of the state were also taken into consideration in developing the SWOT analysis. As with the SWOT analysis all the faculty and staff members played a constructive role and some of the expected results in the next five years are;
> Enhancement of enrolment to PG/Ph.D programmes
> Substantially increasing R&D and academic output (publications, books, patents, etc.)
> Improving student credentials, their research output and employability and salary.

> To further improve collaborative programmes, industry interaction, funded research projects, networking with industry, premier educational institutes in India and abroad.

> Increasing further the help to weaker students, improving their skills and employability, equity assurance to all faculty, staff and students.

Details of SWOT Analysis

Strengths:
1. Enlightened and forward looking Management with over 17 years of experience and with a vision for bringing up the institution to the highest level of quality.
2. Effective, Efficient, and collective academic leadership.
3. Highly transparent Governance and Administration with well-defined decentralization of authority.
4. Highly qualified, experienced, stable, committed, research-oriented, and students-caring faculty.
5. Modern infrastructure with massive campus redevelopment (including facilities like modern hi-tech seminar halls, auditoria, digital class rooms).
7. Extremely sound financial position of the trust managing the institute.
8. Strategically located in Bellary, the mining hub of India. The institute is located in close proximity to organizations like JSW, BTPS, MSPL, etc.
9. Faculty who are alumni of premier institutes like ISRO, Indian Institute of Science, Indian Institutes of Technology, National Institutes of Technology, etc.
10. Ultra-modern laboratories with latest equipments, legal software packages, etc.
11. Students from all over the country and abroad leading to a cosmopolitan and progressive culture.
12. Very active Alumni Association with large membership and several alumni who are in very senior executive positions.
13. Innovative facilities like Entrepreneurship development cell, Technology incubation centre, Centre for advanced training and continuing education, Centre for research and industrial consultancy, etc.
14. PG programmes and Research programmes in majority of the departments, and a strong and active research ecosystem.
15. ISO Compliance Quality Management System with more than 07 years of implementation experience.
16. The management constantly upgrades through workshops and bring best practices.

Weaknesses:
1. Industrial consultancy is to be strengthened considerably.
2. Potential of networking with other institutions is not yet fully exploited.
3. Awareness of IPR among faculty needs to be enhanced to accelerate effective conversion of research activities into viable / commercialisable projects.
4. Industry-Institute Interaction needs to be strengthened.
5. R&D in cutting-edge technologies needs to be enhanced.

Opportunities:
1. Possibility for substantial increase in the number of high quality PG and Research programmes being offered at the Institute to meet the rapidly increasing demand.
2. Inter-disciplinary research and collaboration with sister institutes to develop effective engineering solutions for the problems in the fields of medical, dental, pharmacy, etc.
3. Possibility of offering electives in the emerging areas in collaboration with industries.
4. Industry that is looking forward to partner in research projects, outsourcing their training programs, and extending consultancy projects to larger number of academic institutes.
5. Networking and sharing of facilities with other institutions and industries.
6. Directed applied research projects with potential for patenting and possibility of collaborating with industry.
7. Starting new diploma and certificate programmes to meet the increasing demand for skilled personnel.
8. Leveraging the strong links with distinguished alumni to increase the engagements with industry for development projects, consultancy works etc.
9. Collaboration with foreign Universities for possible exchange programmes.

Threats:
1. Migration of faculty in high-demand areas to industry / other institutes / foreign universities.
2. Competition from other institutions and foreign universities that may setup their operations in India in near future.
3. Fast changing technologies, and educational ecosystem that is certain to place huge demands on the efforts to mobilize resources for upgrading human resources and physical infrastructure.
4. Decreasing availability of committed and quality faculty with passion for teaching.

The results of the SWOT analysis together with the core values, vision and mission of the institute as well as the institute's perceptions about its social responsibilities formed the basis for developing the strategic plan.

*** *** ***

SECTION B:

PREPARATION OF SELF-STUDY REPORT

1. Profile of the Affiliated / Constituent College

1. Name and Address of the College:

Name :	**BALLARI INSTITUTE OF TECHNOLOGY & MANAGEMENT, BELLARY.**
Address :	**"Jnana Gangotri" Campus, No.873/2, Bellary-Hospet Road, Near Allipur, Bellary**
City : **Bellary**	Pin : **583 104** · State : **Karnataka**
Website :	**www.bitm.edu.in**

2. For Communication:

Designation	Name	Telephone with STD code	Mobile	Fax	Email
Principal	Dr. U. Eranna	O:08392-237150	9902499388	08392-237197	jayaveer_88@yahoo.com
Vice Principal	Dr. K.S.R. Sridhar	O:08392-237160 R:08392-240707	9741153239	08392-237197	srimanugo@yahoo.com
Steering Committee Co-ordinator	Dr. N. Gururaj	O:08392-237187 R:08392-260232	9448695476	08392-237197	n.amogh@yahoo.co.in

3. Status of the Institution:
    Affiliated College   ✓
    Constituent College
    Any other (specify)

4. Type of Institution:
  a. By Gender
    i.   For Men
    ii.   For Women
    iii.   Co-education   ✓

  b. By Shift
    i.   Regular   ✓
    ii.   Day
    iii.   Evening

5. It is a recognized minority institution?
    Yes   No   ✓

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

6. Sources of funding:
Government
Grant-in-aid
Self-financing ✓
Any other

7. a. Date of establishment of the college: **01/08/1997 (dd/mm/yyyy)**
b. University to which the college is affiliated /or which governs the college (If it is a constituent college)
Visveswaraya Technological University, Belgaum.
c. Details of UGC recognition:

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

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

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

Under Section/ clause	Recognition/ Approval details Institution/ Department Programme	Day, Month and Year (dd-mm-yyyy)	Validity	Remarks
i. AICTE Act	All programmes	26/06/2013	EoA for one year	The institution is recognized by AICTE, since 1997.

(Enclose the recognition/approval letter)   **ENCLOSED**

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

Yes ☐   No ☑

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

Yes ☐   No ☑

9. Is the college recognized.

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

Yes ☐   No ☑

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

b. for its performance by any other governmental agency?

Yes ☐   No ☑

If yes, Name of the agency …………………… and

Date of recognition: …………………… (dd/mm/yyyy)

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

Location *	URBAN
Campus area in sq. mts.	44,515.35 Sq. Mtrs
Built up area in sq. mts.	42,386.41 Sq.Mts.

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

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

> Auditorium / seminar complex with infrastructural facilities ✓
> Sports Facilities
> Play Ground   ✓
> Swimming Pool   ✓
> Gymnasium   ✓

> Hostel
> Boys' hostel   ✓
   i.   Number of Hostels   02
   ii.   Number of Inmates   450
   iii.   Facilities (mention available facilities)

> Girls' hostel
   i.   Number of Hostels   01
   ii.   Number of Inmates   450
   iii.   Facilities (mention available facilities)

> Working Women's Hostel   NO
   i.   Number of Inmates
   ii.   Facilities (mention available facilities)
> Residential facilities for teaching and non-teaching staff (give numbers available — cadre wise):   Principal, Vice-Principal and Warden ✓
> Cafeteria   ✓
> Health centre   ✓
> First aid,   ✓
> Inpatient   -
> Outpatient   -
> Emergency care facility   ✓
> Ambulance   ✓

> Health centre staff -
  Qualified Doctor Full time [-] Part-time [✓]

  Qualified Nurse Full time [✓] Part-time [-]

> Facilities like banking, post office, book shops ✓
> Transport facilities to cater to the needs of students and staff ✓
> Animal house -
> Biological waste disposal -
> Generator or other facility for management / regulation of electricity and voltage ✓
> Solid waste management facility -
> Waste water management -
> Water harvesting -

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

Sl. No.	Programme Level	Name of the Programme/ Course	Duration	Entry Qualification	Medium of instruction	Sanctioned/ approved Student strength	No. of students admitted
1	Under-Graduate	CSE	4 Years	10+2	English	120	118
		ECE	4 Years	10+2	English	180	139
		ME	4 Years	10+2	English	240	203
		EEE	4 Years	10+2	English	120	86
		ISE	4 Years	10+2	English	60	32
						720	**578**
2	Post-Graduate	CNE	2 Years	Degree in Engg	English	18	15
		CSE	2 Years	Do	English	24	22
		DE	2 Years	Do	English	24	24
		VLSI DES	2 Years	Do	English	18	18
		D.E.	2 Years	Do	English	18	18
		MBA	2 Years	Degree	English	180	87
		MCA	3 Years	Do	English	60	32
						342	**216**
	Integrated Programmes PG	--	--	--	--	--	--
3	Ph.D.	Physics	--	PG	English	--	--
		Chemistry	--	PG	English	--	02
		Mathematics	--	PG	English	--	01
		CSE	--	PG	English	--	03
		ECE	--	PG	English	--	13
		ME	--	PG	English	--	05
		MBA	--	PG	English	--	02
							26
	M. Phil.	--	--	--	--	--	--
	Ph.D.,	--	--	--	--	--	--
	Certificate courses	--	--	--	--	--	--
	UG Diploma	--	--	--	--	--	--
	PG Diploma	--	--	--	--	--	--
	Any Other (specify & provide details)	--	--	--	--	--	--

13. Does the college offer self-financed Programmes?

Yes ☐ No ☑

If yes, how many? N.A.

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

Yes	✓	No		Number	3

15. List the departments: (respond if applicable only and do not list facilities like Library, Physical Education as departments, unless they are also offering academic degree awarding programmes. Similarly, do not list the departments offering common compulsory subjects for all the programmes like English, regional languages etc.)

Faculty	Departments (Eg. Physics, Botany, History etc.)	UG	PG	Research
Science	Not Applicable	N.A.	N.A.	N.A.
Arts	Not Applicable	N.A.	N.A.	N.A.
Commerce	Not Applicable	N.A.	N.A.	N.A.
Any Other (Specify)				
Engg. & Technology				
	CSE, ECE, ME, ISE, EEE	05	--	--
	CNE, CSE, DE, VLSI, DE	--	05	--
	Chem. Phy. Maths, ECE, CSE, ME, MBA	--	--	07

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

a. annual system ☐

b. semester system ☑

c. trimester system ☐

17. Number of Programmes with

a. Choice Based Credit System NIL

b. Inter/Multidisciplinary Approach NIL

c. Any other (specify and provide details) NIL

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

Yes ☐   No ☑

If yes,

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

and number of batches that completed the programme ☐

b. NCTE recognition details (if applicable)
Notification No.: ……………………………………
Date: …………………………… (dd/mm/yyyy)
Validity:………………………..

c. Is the institution opting for assessment and accreditation of Teacher Education Programme separately? Yes   No

Yes ☐   No ☑

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

Yes ☐   No ☑

If yes,
a. Year of Introduction of the programme(s)……………….
(dd/mm/yyyy)
and number of batches that completed the programme ☐

b. NCTE recognition details (if applicable)
Notification No.: …………………………………… Date: …
(dd/mm/yyyy) Validity:……………………

c. Is the institution opting for assessment and accreditation of Physical Education Programme separately?
Yes ☐   No ☑

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

Positions	Teaching faculty						Non-teaching staff		Technical staff	
	Prof.		Asso. Prof.		Asst. Prof.					
	*M	*F	*M	*F	*M	*F	*M	*F	*M	*F
Sanctioned by the UGC / University / State Government Recruited	NA									
Yet to recruit	NA									
Sanctioned by the Management / society or other authorized bodies Recruited	16	2	10	01	105	48	45	01	51	7
Yet to recruit										

*M-Male *F-Female

21. Qualifications of the teaching staff:

Highest Qualification	Professor		Associate Professor		Assistant Professor		Total
	Male	Female	Male	Female	Male	Female	
Permanent Teachers							
D.Sc./D.Litt.	--	--	--	--	--	--	--
Ph.D.	12	02	02	--	01	01	18
M.Phil.	--	--	--	--	01	--	01
PG	04	--	08	01	89	41	143
UG	--	--	--	--	11	06	17
	16	02	10	01	102	48	**179**
Temporary Teachers							
Ph.D.	--	--	--	--	--	--	--
M.Phil.	--	--	--	--	--	--	--
PG	--	--	--	--	--	--	--
Part-time Teachers							
Ph.D.	--	--	--	--	--	--	--
M.Phil.	--	--	--	--	--	--	--
PG	--	--	--	--	--	--	--

22. Number of Visiting Faculty / Guest Faculty engaged with the College.

NIL

23. Furnish the number of the students admitted to the college during the last four academic years.

Categories	Year 1 (2013-14)				Year 2 (2012-13)				Year 3 (2011-12)				Year 4 (2010-11)			
	Male		Female		Male		Female		Male		Female		Male		Female	
	UG	PG	UG	PG	UG	PG	UG	PG	UG	PG	UG	PG	UG	PG	UG	PG
SC	26	8	18	8	18	15	15	11	19	5	5	5	12	6	11	3
ST	8	4	6	5	10	8	10	7	3	1	8	1	5	1	4	0
OBC	178	87	149	66	134	30	134	20	88	4	79	17	39	11	39	4
General	136	22	90	11	124	63	106	48	94	62	102	61	144	67	118	48
Others	2	1	1	4	0	0	1	1	0	0	1	0	0	1	0	2

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

Type of students	UG	PG	M. Phil.	Ph.D.	Total
Students from the same state where the college is located	551	201	0	5	757
Students from other states of India	63	15	0	1	79
NRI students	NA	NA	NA	NA	NA
Foreign students	NA	NA	NA	NA	NA
Total	614	226	0	6	836

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

UG | 00 | PG | 00 |

26. Unit Cost of Education
(Unit cost = total annual recurring expenditure (actual) divided by total number of students enrolled)
(a) Including the salary component Rs.11,48,52,991/- ÷2522 = Rs.46,540/-
(b) Excluding the salary component Rs.3,43,32,453/- ÷ 2522 = Rs.13,614/-

27. Does the college offer any programme/s in distance education mode (DEP)?

Yes [ ]   No [✓]

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

Yes [ ]   No [✓]

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

N.A.

c) Number of programmes offered   [N.A.]

d) Programmes carry the recognition of the Distance Education Council.
Yes [ ]   No [✓]

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

29. Is the college applying for
Accreditation: Cycle 1 [✓] Cycle 2 [ ] Cycle 3 [ ] Cycle 4 [ ]

Re-Assessment: [ ]
(Cycle 1refers to first accreditation and Cycle 2, Cycle 3 and Cycle 4 refers to re- accreditation)

30. Date of accreditation* (applicable for Cycle 2, Cycle 3, Cycle 4 and re-assessment only)
Cycle 1: ………… (dd/mm/yyyy) Accreditation Outcome/Result………...
Cycle 2: ………… (dd/mm/yyyy) Accreditation Outcome/Result………....
Cycle 3: ………… (dd/mm/yyyy) Accreditation Outcome/Result………....
* Kindly enclose a copy of accreditation certificate(s) and peer team report(s) as an annexure.

31. Number of working days during the last academic year. (2012-13)

220

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

156

33. Date of establishment of Internal Quality Assurance Cell (IQAC)
IQAC <u>15.11.2003</u> (dd/mm/yyyy).

34. Details regarding submission of Annual Quality Assurance Reports (AQAR) to NAAC.
AQAR (i) ……………… (dd/mm/yyyy)
AQAR (ii) ……………… (dd/mm/yyyy)
AQAR (iii) ……………… (dd/mm/yyyy)
AQAR (iv) ……………… (dd/mm/yyyy)

35. Any other relevant data (not covered above) the college would like to include. (Do not include explanatory/descriptive information)
> For teaching faculty, AICTE Scale of Pay (6th Pay Commission) and allowances
> For non-teaching staff, state government scale of pay with allowances
> Financial assistance to teaching faculty for attending and presenting papers in International and National Conferences, to attend seminars, workshops, faculty development programmes, skill development programmes, etc.
> Provision of sabbatical leave to teaching faculty.
> Medical insurance for both teaching and non-teaching staff members
> Facility for provident fund, gratuity, LIC.
> Fee concession for the children of teaching and non-teaching staff
> Vehicle loan facility for staff.
> Contingency allowance for faculty pursuing Ph.D.,
> Faculty remuneration for additional responsibility taken with respect to process.

*** *** ***

2. Criteria - wise Inputs

CRITERION I

CURRICULAR ASPECTS

1.1   Curriculum Planning and Implementation

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

Vision:
To be a Top Notch Educational Institution that Provides best of breed Educational Services by leveraging technology and delivered by best in class People in line with the Globalized world.

Mission:
To empower the Students with Technical and Managerial Skills, professional ethics and values, and an appreciation of Human Creativity and Innovation for an inquisitive mind.

QUALITY POLICY
Ballari Institute of Technology and Management is committed to impart Quality Education as per AICTE, VTU and Govt. of Karnataka Norms. It aims at grooming talents and turning its students into top quality professionals with deep knowledge and strong ethics.
Ballari Institute of Technology and Management is committed to comply with the Quality Management Systems and Progress continually.

Objectives
> Our institution is committed to its motto of excellence, variety, and perfection in education and also to the nation's three-tier approach to higher education through expansion, excellence and equity for achieving rapid and inclusive growth.
> To foster value based education to the students through mentoring, counseling, guiding and developing them to be recognized as good personalities.
> To nurture students through various modes of learning.
> To enhance the students' employability skills and social opportunities by improving their understanding and command over the English language and soft skills training.
> To create an exposure in developing the competencies of the students in order to prepare them to face the challenges of the changing world.
> To focus on full-fledged research center and to encourage industry-academia interactions.

Communication to stakeholders
The following criteria have been used to communicate the Vision, Mission and the Objectives of the college to the stakeholders:

> The vision and mission is displayed in the main reception area of the college, Administrative cabins, office rooms and laboratories, Department notice boards, HOD and faculty cabins,
> It is also communicated through prospectus, college handbook, IA books, and college magazine "Bhoomika" and day-wise cards.
> Awareness workshops to students and faculty periodically
> It is also displayed on college websites, and advertisements of the college.
> It is also highlighted in the orientation programmes, conferences, workshops and intercollegiate fests, parent-teacher meet and other important gatherings.

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

The college systematically designs and develops action plans for effective implementation of the curriculum. At the outset, the Principal of the college conducts meetings regularly with the Heads of Departments to develop various strategies for effective implementation of the curriculum. Based on deliberation and action ITEMs are identified and strategized to implement it.

The academic calendar issued by the affiliating university forms the basis for designing the college semester plan. The college semester plan consists of commencement date and last working date, dates for conduction of the internal assessment tests and others planned events and workshops.

College calendar of events is prepared. Thereafter, the faculty members of various departments conduct their internal meetings and develop academic plans such as timetables, lesson plans, and course files for the coming academic year.

Teachers are encouraged to plan in advance to impart the curriculum following OBE (Outcome Based Education) through innovative teaching methods such as presentations, assignments, discussions, workshops, seminars, industrial visits apart from regular lecture sessions and the same is taken for approval from their Head of Department and the Principal.

Thereafter the lesson plans are prepared by the respective faculty in accordance with the curriculum. Lesson plans and subject course files are maintained by each faculty for their respective subjects allotted, which is reviewed on continuous basis by the review committee.

The following criteria have been followed in effective implementation of the curriculum:
> We have a predefined college calendar following the university dates regarding the schedule of the semester (a copy of the academic calendar will be available for inspection during Peer Committee visit).
> Lesson plan is made according to the college calendar for each semester.
> As part of our plan in implementing the curriculum, we have scheduled internal assessment tests (minimum of three tests per semester) for all the students.

> Apart from regular classes, we have case study/ presentation, guest lecturers/ workshop hours to enhance the capability of students in presenting the topics related to the curriculum.
> Identification of above-average students and motivating them towards excelling in their academic performance.
> Identification of academically weak students and conducting the remedial classes so as to raise their academic performance.
> Organizing expert lecture series, workshops, and guest lectures' to encourage industry-academia interface among students and faculty members on a regular basis.
> Industrial visits are arranged for the students to be familiar with the industry process to study in the curriculum.
> Curriculum and academic calendar are prescribed by the University.
> Each student is provided with a copy of the curriculum.
> Students are also provided with the academic calendar and the same is followed with some required changes to cater to the local situations if needed.
> Allocation of the subjects to the faculty is done taking into consideration, the faculty qualifications, subjects' specialization, experience and their willingness.
> Lesson plans are prepared by individual teachers for the subjects they are handling, including the labs within the ambit of the academic schedule. The academic schedule is strictly followed as per the academic calendar.
> Detailed course files are prepared by the faculty which includes comprehensive class notes, teaching material and OHP transparencies, PPT slides.
> The progress of syllabus coverage is monitored periodically at various levels.
> In addition to the curriculum, students are educated about the latest developments in their respective fields by arranging for guest lectures by industry experts, industrial and field visits etc.,
> For example, students of all the departments have gone on at least one industrial visit during the third year of their course.
> Periodical feedback is obtained from the students on aspects of teaching-learning.
> Regular Class mentors meetings are held by the Head of the Department to review the teaching learning process, academic progress of the students, grievances if any, and suitable remedial measures are taken as and when necessary.
> Standard evaluation methods are followed by all the staff members of all the departments uniformly while allowing individual innovations.
> Evaluation schedules are prepared by the Academic and Examination section of the college keeping in view the calendar of events of the University for Different Courses.
> The institution has an Academic coordinator who ensures regular Academic audit of Attendance Registers, Internal Examination Question papers and answer sheets at the end of each semester.
> Design based experiments are also conducted.

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

The institution follows the curriculum prescribed by the affiliating university, Visveswaraya Technological University, Belgaum. The curriculum is well transacted to the students after serious preparation as well as critical thought by the teachers concerned. Being an affiliated institution, we are always updated with the latest norms and guidelines laid down by the affiliating university.

The institution encourages the faculty to keep themselves updated by enrolling for the refresher courses, orientation programs and workshops to keep the knowledge and teaching aptitude of the teachers updated. The faculties of the college are also encouraged to come up with suggestions, remedies etc., to improve the curriculum and teaching–learning methods during the meetings of the College Academic Council.

The College also encourages the teachers to participate in the Orientation/ Refresher Courses / Workshops / Seminars organized by the affiliating university to update the knowledge and to improve the teaching practices. The college bears all the expenditures of travelling including registration/ participation fee etc.
The new staff members are taken through teaching and learning process methodology.

The college provides ample books and other teaching and reference material like Journals, Magazines, Teaching Models and software to enable its teachers to ensure effective delivery of curriculum. The Institution supports the process of enhancing the ability of the teachers to effectively translate the curriculum in the following manner.

> The faculty is encouraged to apply for projects for research grants to different funding agencies such as AICTE, VGST, DIC, etc., which help to enhance professional competence.
> Supporting the growth of programmes, particularly at postgraduate level, that focuses on identified areas of academic strength, and which will include provision for employer-led, work-based learning and continuing professional development.
> In order to cater to needs of the research activities by different departments the management has established R&D facilities in all departments with all the necessary infrastructure and latest equipments. This in itself is a huge encouragement for the faculty to pursue their research activities within the institution. These facilities would also help in Institutional-Industry interaction in research and development in engineering and sciences.
> The institution sponsors the faculty by reimbursing the travel expenses and registration fee for workshops, MDP, FDP and Conferences.

Note: Research papers and publications are shown in individual departmental profiles.

The University prescribed syllabus includes subject lesson plan hours for both theory and practical stating reference and recommended books along with practical component hours. (University Syllabus is available at www.vtu.ac.in/index.php/scheme-and-syllabus.html)

> Based on the guidelines of the University required lecture, laboratory/ practical and tutorial hours are allotted for each subject.
> For effective teaching, the college provides OHP, LCD projectors. Each department has seminar room for conduction of guest lectures, workshops and student presentations.
> Support facilities available to the faculty for improving their teaching efficiency includes: access to books in the department and central library and e-resources. Various E-journal downloading facilities are made available in the college library based on the prescribed curriculum by the university.
> Many faculty development programmes/ train the trainers programmes are organized so as to increase subject know-how of the faculty.
> Wi-Fi internet facility is available.
> Senior faculty in the department are motivated towards conduction of conferences, symposia, writing research papers, research projects, registration for Ph D, publication of books, etc.
> Faculty members are encouraged to attend Faculty Development Programme / Seminars / Workshops / Conferences conducted by other universities/ institutions for enriching their subject knowledge every year.
> Faculty members are encouraged and given incentives to publish papers in reputed national/international journals.
> Faculty are provided with Casual Leave (15 Days per year), Earned Leave (10 Days per year), Maternity Leave (90 Days) and Leave for higher studies.
> Faculty members have attended MISSION 10X, Faculty Empowerment programme conducted by Wipro Technologies for effectively delivering the curriculum to the students.
> Design based experiments.

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

Given below are the contributions and initiatives given by the institution for effective curriculum delivery and transaction on the curriculum provided by the affiliating university:
> Good ambience and well ventilated class rooms are provided for the students.
> Wi-Fi connection is provided.
> Adequate number of OHPs and LCD projectors are available in each department for effective curriculum delivery.
> Above-average students are encouraged and motivated towards excelling in their academic performance.

> Academically weak students are identified and remedial classes are conducted to improve their academic performance.
> College buses ply in and around the city to cater to the transport needs of the students and staff.
> A well equipped auditorium with 500 seating capacity is available for the conduction of Faculty Development Programme / Seminars/ Workshops/ Conferences.
> Department-wise seminar halls with a seating capacity of 100 to 120 are available for conducting expert lectures/ guest lectures/ student presentation.
> Keeping in view the increasing importance of English for career purpose, we have a well equipped English Language Lab with multimedia computers. The software consists of interactive learning kits which help student enhance their verbal and written communication in English and thereby their employability. The software has English Lab, Career Lab and Aptitude Lab.
> The laboratory facilities are as per AICTE / VTU norms. The experiments are conducted as per the university syllabus and additional experiments are conducted for the benefit of the students. This is also available in the laboratory manual.
> Our Library / Knowledge centre is well equipped with rich database catering to the needs of students and faculty-Access to e-book and e-journals; IP base 12 online databases.
> The library is open for the students from 9 am to 8 pm for the day scholars and hostellers.
> In addition interactive board in all departments is an added facility for Information & Communication Technology (ICT) integration in the curriculum. Thus the students are technologically enabled to compete in the global employment market.
> Uninterrupted power supply and Generator is provided by the institution during working hours - 370 KVA electricity back-up facility is available.
> Identifying the right faculty for subject.
> Staff trained by OBE. Mention lesson plan.
> Extra hours for problematic subjects.
> Feedback for corrective actions.
> Remedial Classes
> Videos / PPT's
> Industrial visits
> Deputation to workshops / FDP's / Sabbaticals
> Financial Support for paper presentations and conferences.
> Contingency for all PhD work.
> Wipro Mission 10X certified.

The institution is taking special efforts for the professional development of its faculty to facilitate effective curriculum delivery.
> Detailed course schedules and course material are prepared by the faculty for the subject allotted to them.
> Lesson plans are prepared by the faculty.
> Appropriate numbers of hours are allocated for tutorial work.

> The attendance registers are scrutinized by the Head of the department and the Principal once in a month to ensure coverage of topics as per syllabus and teaching schedules.
> Regular Class Committee meetings are held by the Head of the Department to review the teaching learning process, academic progress of the students, grievances if any, and suitable remedial measures are taken as and when necessary.

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

The networking and interactions with industry
> To enrich the knowledge of students, to meet the content beyond the syllabus and to gain knowledge on the recent trends regular guest lectures and seminars by eminent industry personalities are conducted.
> The institution has Placement cell which networks and interacts with the representatives of industry. The HR managers and industry professionals are regularly invited to the campus to interact with the students on career challenges and opportunities.
> As part of industry academia interface regular industrial visits and educational tours are organized for the students to bridge the gap between academia and corporate.
> As an affiliated college to Visveswaraya Technological University, we follow the syllabus prescribed by the university. However, timely modifications are made to meet the global trends through curriculum update, Projects, Value-added courses, industrial visits, Guest Lectures, Workshops, Faculty Development Programmes, participation in Seminars, Symposia, Technical fests, National and International conferences by students and faculty. Certificate courses and add-on courses are efforts to supplement the gap in learning and to add value to existing courses. Some of the Value-added certified courses such as
> CISCO certification and JAVA certification courses.
> Intel Embedded systems Certification.
> CAD, STAAD Certification.
> SkillWiz certification.
> Campus Connect programme
> MTLC Lab
> Sabbaticals are encouraged.
These value added courses helps students in gaining an upper hand in procuring jobs.

The networking and interactions with research bodies:
> The institution has approved Research center by the VTU for ECE, CSE, ME, MBA, and Physics, Chemistry and Mathematics departments.
> The Institution organizes technical symposium / Series lectures on latest cutting edge technologies by inviting eminent Scientists from various Research Institutes and organizations and provides a solid platform to interact with them for collaborative activities.

> Students and faculty actively participate in institutional chapter activities such as IEEE and ISTE, etc.

The networking and interactions with University

The college is affiliated to Visveswaraya Technological University; we follow the syllabus prescribed by the university that has been designed by the Board of Studies consisting of representatives from various departments and colleges affiliated to the University.

> The faculty of various departments is encouraged to attend workshops organized by the University regarding syllabi revisions: to facilitate the discussion regarding the necessary changes in the syllabus, and to provide their inputs to the forum regarding the same. This also includes regular communication between Board of Studies and the Department faculty for continuous improvement in the teaching-learning process.
> Professors and Doctorates of our college have been members of Board of Studies and Board of Examiners.
> Some of our senior faculty is part of the syllabus / text book committee of the university, in charge of framing the syllabus and writing text books etc.
> Composition of teaching faculty of our college also has people with considerable industry experience and they also contribute through feedback mechanism to the Board of Studies whenever the syllabus is due for revision.
> Many of the faculty members of our college are regularly involved in question paper setting for BE, M.Tech., MBA, MCA and PhD semester examinations. The faculty members are also deputed for paper valuation, external examiner, external Deputy Chief Superintendent (DCS) and also as flying squad members.

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

Number of faculty members represented on the Board of Studies

Table 1.1: Board of Studies Members

No.	Name of the Faculty	Department
1	Dr. Rajashree Biradar	CSE

Students' feedback:
> Feedback is obtained from students at the middle of the semester in standard written format.
> Feedback is taken during HOD / class committee meetings.
> Feedback is collected by Heads of the department with details of the syllabus covered.
> Feedback is taken directly by Principal from the students department-wise.
> Feedback is also being collected by the respective mentors.

Alumni Feedback:

The feedback of the alumni members is collected by using the Alumni registration forms, whenever the Alumni Association Meetings are held. This feedback plays a valuable role in planning the Add-on courses and training to be given to the budding engineers in the third and fourth year.

Parents feedback:

> Feedback is being taken during their visit to the college / parent's meet.
> Formal and informal parent teacher meetings
> Feedback of the parents is collected, from the parents, whenever they attend the Parent – Teacher Meeting, to find the academic progress of their ward, to convey their grievances regarding the infra-structure, curriculum, methodology of teaching, attendance of their ward, discipline of the student etc.

Employers / industries

> The feedback is collected from the employers and industries during the placement interviews, visit of faculty to industries for evaluation of student projects and project interactions.

Academic peers feedback:

> The feedback is collected from the external examiners, experts invited for Guest lectures and industry experts, also during BOE meetings.

Community feedback:

> As parents form a major chunk of community who are intended in the overall growth of the institution their feedback is also taken during the regular meetings conducted with them.

> Thus the college has its value based mechanism to obtain feedback on curriculum from academic peers, outgoing students, alumni, industry experts and parents.

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

NO

The scope is limited as the college is an affiliated college to Visveswaraya Technological University; we adhere to the syllabus prescribed by the university. Certificate courses and Value Added courses are efforts to supplement the gap in learning and to add value to existing courses.

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

The objectives of the curriculum are achieved by the following practices:

> Implementation of well framed feedback mechanism.
> Organization of and participation in national/international level symposia.

> Organization of national / international conferences and guest lectures.
> Development of technical skills through workshops / certificate courses.
> Introduction of certificate courses and value added courses.
> Outreach programmes for social and environmental awareness.
> Integration of VTU- VSAT in the curriculum for enhancing teaching.
> In-house projects as orientation towards research.
> Development of soft skills through workshops, seminar, and paper presentations
> Launching of in-house magazines/newsletter which help students explore and assimilate technical writing skills.
> Organizing industrial visits to various public and private sector companies.
> Encouraging co-curricular and extra-curricular activities of students through organizing annual event of the college, etc.,
> Active participation of students / faculty in institutional chapter activities such as IEEE, CSI, ACM, BMA, GBC, IETE and ISTE etc.

Analysis:
- Feedback
- Alumni's Feedback
- Review with respect to lesson plan
- Number of publications made by staff and students
- Ranking of the College.
- Placement performance

All the above are in addition to strict adherence to academic calendar and teaching plans.

Some of the best practices in curricular aspects that has been planned and implemented by the institution are as below:
> Introduction of certification courses for UG and PG students.
> Emphasis to hard and soft skill development.
> Emphasis to global competencies.
> MoU with core companies

The college encourages and trains students to participate in various competitions at inter collegiate and national levels that have resulted in their winning many prizes and exposure to recent developments in their chosen disciplines.

1.2 Academic Flexibility

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

The Goals set by the Institution are: Long term goals
> To provide high quality technical education on par with international standards.
> To become the top ranked technical institution in Karnataka.
> To introduce various professional programs in collaboration with global institutions of repute.
> To introduce industry relevant programmes in association with leading industries and corporate.

Intellectual

(i) Providing quality higher education to students by offering relevant programmes and courses facilitating the creation of knowledge capital, knowledgeable and skilled human resource to accept the social, scientific and industry challenges and responsibilities at regional, national and global level.

(ii) Facilitating production of intellectual capital and property in terms of research output, publications, applied research, transfer of knowledge, skills, strategies and technology from laboratory to industry/society in the field of Science, Technology, Arts, Management, Medical, Dental and allied sciences.

> Excel in tapping human resources through innovative learning across disciplines so as to develop integral thinking;
> Generate new ideas and perspectives relevant to human empowerment;
> Sow scientific temper through critical thinking and logical reasoning that can trigger creativity and analytical skills;
> Nurture proficiency for individual excellence through exposure to field experience, case study, and skill-based learning, and expand and enrich it by research and critical enquiry;

Academic

> Ensuring broad base of curricula while developing relevant, challenging and well-taught programmes that engage with theory and practice and with teaching supported by research.
> Responding swiftly to new learning opportunities and lead the development of new areas within the curricula.
> Supporting the growth of programmes, particularly at postgraduate level, that focus on identified areas of academic strength, and which will include provision for employer-led, work-based learning and continuing professional development.
> Ensuring that the curriculum takes full account of the challenges of our age
> Developing learning spaces and the social environment on our campuses to meet the needs and rising expectations of a diverse student body.
> Expanding and adapting systems, where possible, by building upon our network of partners in the local and international markets.
> Facilitate the teaching fraternity to cultivate capacity building with moral leadership among students so as to address global and local needs, and provide solutions to problems afflicting mankind;

Training and Self Development

> Organizing orientation/refresher Programmes, workshops on effective curriculum implementation, research activities and quality initiatives.
> Organizing in–house guest lectures, conferences, seminars/workshops to facilitate interaction with the top scientists, corporate, academicians, eminent researchers and world renowned personalities.
> Encouraging faculty and students to participate in workshops, seminars, conferences etc.

> Designing the curriculum specifically in a manner that ensures a unique intellectual adventure to meet the academic and personal goals of the students
> Encouraging the faculty to pursue higher education
> Develop the spirit of team-building and knowledge sharing through outreaching, collaboration, student exchange programmes, and networking with knowledge- societies and institutions of higher learning across the globe;
> Harvest an inclusive social vision with a praxis towards ushering in an egalitarian and humane society, and
> Garner a win-win situation for all, ensuring a compassionate worldview.

Community and National Development and Value Orientation
> Striving to develop the overall personality of students by making them not only "excellent professionals", but also good individuals, with understanding and regards for "human values", pride in their heritage and culture, a sense of right and wrong, and a yearning for perfection.
> Organizing events like poster making, street plays, essay writing etc. on value based themes.
> Celebrating Human Value Quarter, where students organize and participate in events with value based themes.
> "BITM" an inter – institution Annual Sports Event is organized that provides an opportunity to all our students to exhibit their talents in various sports events thus building strong bondages of friendship, togetherness amongst them all. It teaches real world skills that encourage life-long interests, volunteer work, teamwork, leadership skills, dealing with success and failure, sense of responsibility and disciplinary approach.
> Organizing Blood Donation Camps and Visit to NGOs
> Teaching value based courses like Professional Ethics, Behavioral Science, Environment studies as part of the curriculum.
> Encourage to become social entrepreneurs.

Ecology and Environment
BITM is an eco-friendly (green and clean) campus, with environment friendly efficient technology. The institution is a "Zero Water Discharge" Campus with a "No Smoking Zone". We have installed solar lights, presence sensor, etc.,

The micro environmental processes are regularly reviewed and monitored by Civil Engineer (Maintenance Department) to maintain the ecological balance for keeping the air, water, soil and noise level within the safe limit and also to realize that BITM Campus is a healthy, workable and livable one. Plantation are taken up.

Environmental Studies is taught to all the Under Graduate students as a compulsory course. The course helps in enlightening the students about the importance of the protection and conservation of our environment and control of human activities which has an adverse effect on the environment.

Short term goals:
> Strive for attracting quality faculty and provide incentives for existing faculty to acquire higher qualifications.
> To adopt innovative teaching methodologies to optimize the teaching learning processes and to bridge the gap between theory and practice.
> To become an autonomous institution under VTU.

Program Educational Objectives
1. To produce engineering graduates with a strong foundation in basic sciences, mathematics and strong basic knowledge in the field of their parent branch of Engineering.
2. To produce engineering graduates for successful and productive engineering careers, with emphasis on technical competency so that they are readily accepted by the industry with minimal orientation.
3. The engineering graduates should be capable of identifying, formulating, analyzing, and creating Engineering solutions using appropriate modern engineering techniques, designing skills and tools to develop novel products, solutions and simulation for the real life problems in their parent branch of Engineering.
4. To imbibe professional and social ethics and to develop the confidence for independent working and/ or team sprit to work cohesively with group.
5. To develop their ability to purse higher studies globally.
6. Design based experiments / courses.
7. Other than syllabus, MTLC- Projects by Wipro / Internship for PG's.

1.2.2 Does the institution offer programmes that facilitate twinning /dual degree? If 'yes', give details.
<div align="center">No</div>

1.2.3 Give details on the various institutional provisions with reference to academic flexibility and how it has been helpful to students in terms of skills development, academic mobility, progression to higher studies and improved potential for employability. Issues may cover the following and beyond:
> Range of Core / Elective options offered by the University and those opted by the college
   a. Core options:
   Under the Four Year Degree Program, a student can specialize in any one of the following courses:
   i.   Computer Science and Engineering
   ii.   Information Science and Engineering
   iii. Electrical and Electronics Engineering
   iv.   Electronics & Communication Engineering
   v.   Mechanical Engineering

   Masters of Technology (M. Tech) programmes
   i.   Computer Network Engineering
   ii.   Computer Science and Engineering
   iii. Digital Electronics

iv. VLSI and Embedded Systems Design.
v. Design Engg.

Masters Degree programmes offered in the semester pattern
i. Master of Computer Applications (MCA)
ii. Masters in Business Administration (MBA)

Core and Elective Options:

Programme	Semester	Core and Elective papers
4 year B.E	Sem-1 to 5	6 Core + 2 Labs
	Sem-6	5 Core + 1 Elective + 2 Labs
	Sem-7	4 Core + 2 Elective + 2 Labs
	Sem-8	2 Core + 2 Elective + 1 Project + 1 Seminar
2 Year M.Tech	Sem-1	4 Core + 1 Elective
	Sem-2	4 Core + 1 Elective
	Sem-3	1 Core + 2 Elective
	Sem-4	Project
3 Year MCA	Sem-1	5 Core + 3Labs
	Sem-2	5 Core + 3Labs
	Sem-3	5 Core + 3Labs
	Sem-4	4 Core + 1 Elective
	Sem-5	3 Core + 2 Elective
	Sem-6	Project
2 Year MBA	Sem-1	6 Core
	Sem-2	6 Core
	Sem-3	6 Electives + Project
	Sem-4	6 Electives

In addition to the elective subjects, the students also do project work during the final semester that provides an opportunity for them to prove their technical skills.

b. Options: The Elective options available to students enrolled in the four Year Degree Program are as follows:

All the students have the choice of selecting their own elective Subjects from the list of the subjects offered by the affiliating University.

> Choice Based Credit System and range of subject options: **NO**
> Courses offered in modular form: **NO**
> Credit transfer and accumulation facility: **NO**
> Lateral and vertical mobility within and across programmes and courses: **NO**
> Enrichment courses: **NO**

(a) Add on courses:-
The following Add-on / value added courses offered to the students to augment their skills and enhance their employee opportunities.
> Bridge courses to academically weaker students.
> Personality Development Programmes
> Communication Skill Development Programmes
> Specialized Soft Skill Training to students in Aptitude and Attitude to enable them to perform well on the campus recruitments.
> CISCO Certification
> JAVA Certification
> Embedded systems Certification
> CAD, STAAD Certifications
> SkillWiz Certification.
> Infosys campus connect programme
> MTLC

The feedback from the students for the add-on courses is very much encouraging.

(b) Interdisciplinary courses:
All the undergraduate courses are inter-disciplinary courses. While Physics, Chemistry, English, Mathematics and IT Courses are common to all the courses offered, depending on the combinations of courses, some courses in Engineering Drawing, Workshop, Electronics, Thermodynamics and Heat transfer are inbuilt in the syllabus and are being handled by different departments in the college. MTLC-WIPRO-PROJECTS-INTERDISCIPLINARY

(c) Flexibility to the students to move from one discipline to another:
Regularly university permits change of branch in 2nd year in general subject to availability of vacant seat and also satisfying eligibility requirements prescribed by the university.

(d) Flexibility to pursue the programme with reference to the time frame:
All the Under Graduate programmes (B.E) are of four year duration extended over eight semesters. The student is allowed a maximum duration of eight years to become eligible for the award of Bachelor's degree, failing which he/she may register once again as a fresh candidate.

The M.Tech is of two year duration extended over four semesters. The student is allowed a maximum duration of eight semesters from the first semester of admission to become eligible for the award of Master's degree, failing which he/she may register once again as a fresh candidate.

The MCA is of three year duration extended over six semesters. The student is allowed a maximum duration of six years (12 semesters) to become eligible for the award of MCA degree, failing which he/she shall have to register once again as a fresh candidate.

The MBA course is of two year duration extended over four semesters. The student is allowed a maximum of four years (8 semesters) of duration to be eligible for the award of MBA degree, failing which he/she shall have to register once again as a fresh candidate.

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

<div align="center">

No

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

Yes - The institution offers skill oriented programmes relevant to regional and global employment markets as follows. Specific programs are organized in the departments, besides adding additional contents to some of the individual subjects to enhance the skills of the students

> Soft skill development programs
> Quantitative, Logical and Analytical skill development program
> Computer based skill development programs.
> Infosys Campus Connect program
> Value added courses in core areas
> Workshops – Android, Lab view, Agile Methods.
> Seminars
> Conferences
> Expert lectures
> Extension lectures
> Industrial training and Industrial tours
> Design projects
> Industry oriented projects.

These programmes ensure that the students are adequately skilled and more employable. While designing these additional programmes it is ensured that they suit the global employment market demands as well as the local demands.

Skill oriented courses are Value-added certified courses offered Reliance Leap PGM by the institution that helps students in preparing them towards job opportunities such as CISCO certification, Finwizz, Mavericks, Strategists certifications (Departments of MBA); these value added courses helps students in gaining an upper hand in procuring jobs.

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

<div align="center">

NO

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1.3 Curriculum Enrichment

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

Efforts are made by the institute to supplement the University's Curriculum and ensure that the academic programmes and Institution's goals and objectives are integrated.

> We follow the curriculum prescribed by the VTU thoroughly that helps to fulfill our institutional goals.
> Along with the prescribed one, we deliver some special lectures apart from curriculum.
> Guest lecturers are invited for sharing experts' knowledge on specific domains.
> Students and teachers both are inspired to attend refresher course, seminars, summer schools, winter schools etc which helps them to enrich their knowledge
> Students are sent to foreign universities for summer camps, projects etc.
> Seminars, Workshops are organized
> Beyond Syllabus classes are regularly conducted on emerging fields.

To build the competencies of the students the college emphasizes on nurturing the total development of the students along with excellence in their academic performance; which also includes the assessment of students and faculty with an internal quality system. Over the years, the institute has extended its own boundary by offering a wide range of skill based training programmes, Faculty Development programmes, workshops to facilitate the needs of the student, society and the teaching-learning process. In the year 2011, the institution has constructed a new building with state-of-the-art facilities to facilitate the growing needs of academia and also for the smooth functioning of all the courses.

The institution has the latest versions of scientific and technical software, training kits etc for the students of different branches. The institution has dedicated internet labs with high-end computers and dedicated internet lease line of 10 Mbps from BSNL.

Keeping in view the increasing importance of English for career purpose well equipped English Language Lab with the software in 40 multimedia computers. The software consists of interactive learning kits which help student enhance their communication and employability skills. The software has English Lab, Career Lab and Aptitude Lab as a three year course.

Our Library / Information centre is well equipped with rich database catering to the needs of students and faculty-Access to E-book and E-journals; IP base 12 online databases.

In addition interactive board in all departments is an added facility for ICT integration in the curriculum. Thus the students are technologically enabled to compete in the global employment market.

With a strong commitment to value-based education, the institution has been training students towards academic excellence that would help them seek careers in Engineering, Management and Computer Application in a highly competitive world.

In line with the institution goals and objectives of providing a comprehensive education to diverse sections of society in engineering.

The institute supplements the University's curriculum by conducting following academic programmes to achieve institution's goals and objectives

(a) Conduct of Value added Courses
(b) Conduct of workshops and seminars
(c) Coverage of topics beyond syllabus in theory subjects
(d) Conduct of experiments beyond syllabus in practical subjects.
(e) Conduct of long term training in soft skills
(f) Conduct of long term training in Quant, logic and Analytical skills
(g) Conduct of training in computer based subjects
(h) Conduct of expert lectures

All the academic programs of the BITM follow the curricula prescribed by its affiliating University. Adopting the curricula, BITM strives to develop its students into:
> Independent thinking individuals
> Lifelong learners
> Contributing members of the society

Self-Development: The College creates an environment for student participation in co-curricular activities like debates, quizzes, seminars, play readings and drama workshops. Students are encouraged to enroll in the social service activities of the college which conducts regular camps to nearby villages.

The above activities inculcate
> Self- confidence,
> Self- discipline
> Waves away stage fear
> Boosts up leadership qualities
> Sportsman spirit
> Management skills
> Quick response to any problem
> Problem solving capacity
> Team spirit
> Social abilities
> Inter-College competition and Fests
> Students participate – Coding contests

The students are also facilitated with an on-campus coaching in personality development, aptitude and communication skills, by the top most Consultancies. The Training and Placement Cell of BITM caters to the needs of the students from the third year onwards. It provides the necessary training, in developing the soft skills, so as to equip them to excel in the job market and face the interview committee with confidence. Also, campus interviews are conducted, on regular basis by well known industries.

d. Community and National Development the Research and Development cell in BITM, conducted conferences, workshops and seminars to enhance the development of working skills in the field of engineering and technology in the national scenario. Through its efforts in imparting a holistic education, BITM prepares students to contribute to their community and the national development.

As mentioned earlier, this is done along with imparting knowledge and academic excellence, by providing opportunity to the students to participate in co-curricular and extra- curricular activities, such as:
> Blood donation Camps
> AIDS awareness programs
> Welfare programs for the students of the nearby Schools
> Donations to the Blind / orphans
> Donations to the flood victims
> Cultural Activities
> Traditional day
> Fresher's day
> Annual day
> Sports Activities
> Students annual meet

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

The curriculum itself for all branches of engineering provides a lot of scope to students, by prescribing subjects like Fundamentals of Computer Programming to help them to prepare themselves to cater to the needs of dynamic employment market namely the Multi-National Corporate Software industries.

Also, students' difficulties are represented in the board of studies through expert members of the institution. The recommendations of the institute interaction cell to incorporate latest technology in the curriculum is also represented during board of studies meeting by the members. This will cater to the needs of a dynamic employment market.

The efforts made by the institution to modify, enrich and impart value based education to build and develop the competencies of the students thereby

preparing them to face the challenges in the employment market include the following initiatives:

> Conducting Value Added certification courses to increase the employability skills of the students, such as Campus Connect, MTLC Programmes
> Conducting workshops, seminars and guest lectures by experts from academia and industry to help in updating the students on the changes in knowledge, technology etc.
> Coverage of topics beyond syllabus in theory subjects by expert lectures
> Conducting experiments beyond syllabus in practical subjects and the same is communicated in the lab manuals
> Conduct of long term training in soft skills
> Conduct of training in computer based subjects
> We regularly conduct National level symposia and also international conference in order to motivate staff and students towards research activities.
> The technical sessions and other events in the symposia provide opportunities for students to interact with the best minds in their fields.
> The institution also has department-wise best practices for the up-gradation and the continuous enhancement in knowledge of the students in the various fields of their departments.

Best practices of the Departments:
> Identification of academically weak students and conducting the remedial classes so as to raise their academic performance.
> Identification of above-average students and motivating them towards excelling in their academic performance.
> Organizing many Faculty Development Program / train the trainer' programs so as to increase the subject know-how of the faculty.
> Organizing Expert Lecture series, Workshops, and Guest lectures to both students and faculty to create industry-academia interface on a regular basis.
> Encouraging students and faculty for the utilization of department library, e-resources to the fullest extent.
> Maximum utilization of Laboratory resources.
> Motivating the students to take up innovative projects which have social implication in the department.
> Motivating the senior faculty in the department towards conduction of conferences, symposia, writing the Research papers, Research projects, Registration for PhD, Publication of papers and Writing a book.
> Toppers are encouraged for competitions, fests and projects.

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

Secularism and unity is ingrained in the institution's culture which is evident in the communal harmony among the students from various religion, ethnic,

and socio-economic backgrounds. With a strong commitment to value-based education, the college has been training students towards academic excellence that would help them seek careers in Engineering, Management and Computer Application in a highly competitive world.

The college adopts the curriculum designed by the university to develop competency, obtain employment and promote research among students and the teaching fraternity. The curriculum thus offered in the college addresses the demands of the society in creating awareness, importance and knowledge in students by providing

> Community and national development - NSS
> Self development
> Value orientation - Desh Deshpande Foundation
> Employability
> Ecology and environmental awareness - NSS
> Entrepreneurship Development cell
> Equality – Celebrate Women's Day
> Global and national demands

Gender: Girls and boys are encouraged to work together in various curricular, co-curricular and sports activities. There is no discrimination made in offering the various committees to girls and boys. This holistic approach has led to increased opportunities in employment as well as in building new entrepreneurial development among the student community.

Climate: Encouragement to participate in national and international conferences, workshops, intercollegiate competitions (debate, quiz, and paper presentations), management fests, and industrial visits enable the students to comprehend emerging national and global trends and allows self development and exposure.

Environmental Development: Community developmental activities like blood donation camps, AIDS awareness programmes, waste management programmes contribute to community and national development and also create awareness about ecology and environment through NSS, such as cleaning, awareness campaign on cleanliness, plantation, etc.,

Contributing to National Development: Our contribution to the national development is taken care of by the curriculum which fosters holistic development of students. The programmes that we conduct under NSS, NCC, and outreach committee like blood donation camps, AIDS awareness, eco-friendly environment awareness, plastic waste management, global warming, financial contribution to disaster relief fund, NSS camp at Allipur, Kolagal, and surrounding villages. All these ensure sensitization of students to social concerns and issues pertaining to the nation.

Social Responsiveness: Student social responsiveness activities such as collection of waste paper (Cancer cure campaign), old clothes (distribution in orphanages) are being encouraged.

ICT: Technology is put into maximum use in the teaching-learning process. Our e-classrooms with digital boards make teaching sessions more interactive and help effective time management. Similarly our laboratories and library are e-enabled. The e-transactions cover the entire academic and related activities, thus contributing to significant enhancement of the learning process.

The college has the latest versions of scientific and technical software, training kits etc. for the students of different branches. The college has dedicated internet laboratories with high-end computers and dedicated internet lease line of 10 Mbps from BSNL.

Our Library "Knowledge Center" is well equipped with rich database catering to the needs of students and faculty-Access to E-book and E-journals.

We have implemented Parent Interaction Cell, which enables the students and parents to access the performance of students. We communicate the Internal Test performance and attendance to the parents by SMS through the CMS.

Unique login id and password will be given to Students and parents separately through the e-mail. All the parents need to send their e-mail id and mobile number (to receive SMS alerts) to studentname@bitm.edu.in mentioning their ward's Full name, Branch, Class and section in the subject line.

Thus the students are technologically enabled to compete in the global employment market.

ICT-Computer fundamentals are already taught as a part of the curriculum along with this separate computer centres are available for students to enhance their skills and additional training on MS office.

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

§ **Moral and ethical values**
Our institutional mission underscores value inculcation and sensitivity to social concerns. In keeping with the nation's motto of unity in diversity, we have students from diverse religious and socio-economic backgrounds living in harmony in the college environment.

> The fostering of national values and social sensitivity and responsibility is highlighted in the events we organize like Ethnic Day, Anti-terrorism programme, festivals of various states, social outreach programmes and personality development programmes in the campus.
> The institutions conducts programmes like blood donation camps, AIDS awareness, eco-friendly environment awareness, plastic waste management, global warming, NSS camp at Allipur, Kolagal and surrounding villages that under the banner of NSS.
> The institution has inculcated a practice of celebrating teacher's day, world women's day, Ayudha Pooja, Vinayaka Chaturthi, etc., to emphasize on our culture and heritage.

§ **Employable and life skills**
> Keeping in view the increasing importance of English for career purpose we have a well equipped English Language Lab with the software that consists of interactive learning kits which help student enhance their communication and employability skills. The software has English Lab, Career Lab and Aptitude Lab as a three year course.
> The institute recognizes the importance of life skills and regularly organizes cultural, co-curricular and sports activities, Annual College Day towards development life skills.
> Leadership development through Guest lectures and Desh Deshpande Foundation.

§ **Better career options**
> The institute has an Entrepreneur Development Cell which encourages students in developing competencies in entrepreneurial activities.
> Skill courses such as: CISCO certification courses, Embedded Systems Certification, CAD, certification helps students in enhancing their hard and soft skills.
> Separate training and placement cell is existing in the campus. They organize different seminar and workshop along with the industry institute partnership cell (IIPC) for describing different career path of the student.

§ **Community orientation**
> Community developmental activities like blood donation camps, AIDS awareness programmes, waste management programmes contribute to community and national development and also create awareness about ecology and environment.
> NSS camps are organized for the students every year. Social issues and plantation of trees are given importance during the camps. Blood donation camp is organized by NSS frequently. The students come forward and donate blood for the benefit of the public. The students organize different campaign to keep the city clean and hygienic.

1.3.5 Citing a few examples enumerate on the extent of use of the feedback from stakeholders in enriching the curriculum?
The feedback is obtained from the students regularly during the semester by conducting class committee meeting, subject teacher, Head of the Department, Principal, respective mentors and the semester result analysis. These form the basis for feedback from students. Feedback from alumni, parents, employers, academic peers and community is also being considered for enriching the curriculum aspects.

Alumni Feedback: Every year institute organizes Alumni Meet in which feedback is collected to enrich the curriculum.

Current Students Feedback: At the end of first internal test, a feedback from every student is taken.

Employers Feedback: We organize curriculum development workshop, where we invite employers also. Their feedback is collected during these interactions and also during placements.

Board of Governors (BoG): Regular BoG meetings are held in the Institute and many advises and suggestion are discussed and accepted.

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

> Through feedback
> To instill corrective action based on feedback
> Through peer review sessions

The enrichment programs conducted by the institution are evaluated on the basis of students results, placements and students performance in the competitive examinations, feedback from the stake holders. All these aspects are examined from time to time to modify the programs. The Institution makes sure that the programmes offered in the curriculum and outside the curriculum include contribution to national development, fostering global competencies among students, inculcating a value system among students, promoting the use of technology and quest for excellence. The College's efforts to ensure that the curriculum bears a thrust on these core values include the initiative for Contribution to national development. The college uses education as the tool for empowering women and through the transaction of the curriculum it has adopted, it seeks to address the all round development of the students enrolled in the various academic programs if offers.

The quest for excellence forms part of the institutional motto. The institution regularly monitors and evaluates the quality of its enrichment programmes by:

Feedback mechanisms from students that help improve upon the existing teaching – learning process.

Directing students on the path of values, providing opportunities for students to secure jobs are some of the practices adopted by the college in its quest for excellence.

The Institute monitors and evaluate the quality of its enrichment programs through:
> Feedback mechanism
> Advisor's feedback
> Expert's comment
> Mobile team visit
> Surprise visit
> Exit Feedback from the students at the end of the course.

1.4   Feedback System

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

During the formation/ reformation/ modification of the curriculum, the University invites the representatives from the colleges to put forward the views on behalf of the Institute.

The institution is an affiliated college to the VTU University and therefore there is no scope for framing institution's curriculum on its own. However, a systematic mechanism is installed in the institution to look after the affairs of the feedback process. The university expert teams visit the college once in a year for the purpose of extension of affiliation and affiliation of new courses. During the inspection process the university expert team interacts with students and the faculty on several aspects of availability of facilities and teaching-learning process.

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

During the reformation of the curriculum university invites the representative from the college to put forward the view on behalf of all the stakeholders of the Institute.

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

It is understood that global economy very much depends on higher education. So government of India has taken initiatives to emphasis the higher educational programmes in the country. Accordingly, following programmes are introduced during last four years:

S N	Academic year	Program introduced	Rationale / Justification
1	2010-11	--	--
2	2011-12	--	--
3	2012-13	M.Tech. Design Engg	The global industries have realized that the ability to consistently define and deliver products to the market place more rapidly and efficiently than their competitors can become a source of sustainable competitive advantage. These companies have moved their view to product design and development capability as an end to end business process that can be greatly enhanced through reengineering and can be continuously improved through total quality management. So, the Design Engineering has started.
4	2013-14	M.Tech. Computer Science & Engg.	The M.Tech programme in Computer Science and Engineering imparts a breadth of advanced knowledge in various areas of computer science. The programme is designed such that a student can complete it based on advanced coursework alone. However, the students are given the option to concentrate on a problem by substituting some of the courses with equivalent project work.

Any other relevant information regarding curricular aspects which the college would like to include.

> Use of feedback on Academic Program and Teaching from various stake holders.
> Offering a subject in the area of Environmental Studies in the curriculum.
> Use of ICT in delivering and learning process.
> Mandatory presence of external examiners for UG/PG practical examinations to ensure quality.
> Obtaining feedback from stakeholders through informal contact to obtain information about qualitative changes which are required.
> Emphasis on enhancing computer and internet facility.
> Faculty members participate in workshops, seminars, conferences, symposia by participating at National and International levels organized by BITM and other institutions.
> The faculty members enhance their ability and knowledge by attending orientation programmes and FDPs.
> By referring to latest information and imparting the same to the students, the quality of the curricular aspects is sustained.
> Publication of articles in magazines and journals, authoring and co-authoring of books and course material are the various ways in which the curricular quality is sustained and enhanced.
> The faculty members upgrade their qualifications through QIPs and thereby strive for quality enhancement of curriculum.
> In addition to curriculum, recent advancements and innovations are brought to the notice of students and faculties through seminars, assignments and guest lectures
> Educational Tours and Industrial visits undertaken by various departments are a part of academic culture of the institution.
> The College has set up a Feedback Evaluation Unit for proper and timely analysis of feedback, including feedback on curriculum, so that the information can be used to advice and implement in curricular modifications by the university.
> It has an Academic Calendar for the various courses of studies. This is expected to achieve greater integration of instruction and make lesson plan more meaningful and timely completion.
> Maintaining professional work ethics, inculcating human values.
> Introduction of computer lab, English Communication Skills lab. Introduction of Job oriented training.
> Subscription to e-journals. Seminars, workshops, refresher and orientation courses are conducted and attended by the faculty. Extension/Guest lectures are arranged for the students in various disciplines by inviting eminent personalities. Assignments, project work, group discussions, oral presentations form a part of the curriculum. Awareness programmes for students and staff organized by the institution. The Placement Cell organizes campus interviews for UG and PG students by inviting a number of companies from the corporate sector.
> Research guidance by the faculty members of the institution.
> Faculty development programmes for the staff.

> Remedial classes/ tutorial classes conducted for improving the performance of academically weaker students as per the norms of AICTE and VTU University. Computer and Internet access, on-line teacher training and orientation for faculty members. College expects to create a more equitable learning environment and provide better support for learning by students. It is hoped that this initiative will grow into a full-fledged learning management system.

CRITERION II

TEACHING - LEARNING AND EVALUATION

2.1   Student Enrollment and Profile

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

The college ensures publicity and transparency in admission process by following means

a. Prospectus
The prospectus gives the information on the courses available in the colleges. It also gives the various other facilities available in the College and about the extracurricular activities.

b. Institutional Website
The details provided in the prospectus and admission details are also given on the Website http://www.bitm.edu.in. The website is updated from time to time.

c. Any other (specify)
As the college is existence for the past 17 years and being the most reputed one has earned a name for itself among the students and the parents. During the admission time, being one of the most sought after college in the region, interaction among the stake holders gives enough publicity.

d. Other type of publicity is as under;
>   Advertisement in Regional/ National Newspapers
>   Technical Education meets
>   Hoardings
>   Electronic media
>   Technical festivals
>   Sports festivals

The Admission process is controlled by the Karnataka State Government by a well tested regulation for various courses for 45% of the seats and the rest 30% is made by COMED-K and 25% by the Institute under management quota.

2.1.2   Explain in detail the criteria adopted and the process of admission (Ex. (i) merit (ii) common admission test conducted by state agencies and national agencies (iii) combination of merit and entrance test or merit, entrance test and interview (iv) any other) to various programmes of the Institution.

Admission to Undergraduate Programme:
45% of the students are admitted through Common Entrance Test (CET) of Karnataka Examination Authority conducted by Government of Karnataka. 30% of the admissions are through the entrance conducted by Consortium of

Medical, Engineering, and Dental colleges of Karnataka (COMED-K). The rest of the 25% admissions are through Management Quota.

Admission through KEA:
It is for candidates of Karnataka domicile only. A candidate who has passed the Qualifying Exam (Q.E.) (12th Exam) with Physics and Mathematics as compulsory subjects along with Chemistry / Bio- Technology / Biology / Electronics / Computer Science as optional subjects with English as one of the languages of study and obtained an aggregate minimum of 45% marks in the optional subjects in the Q. E. is eligible for Engineering courses. 40% of marks in Q.E. in case of SC, ST, Category-I and OBC Category candidates are considered. Physics and Mathematics are compulsory subjects along with Chemistry or Biotechnology or Biology. Based on the performance of the candidates in Physics, Chemistry and Mathematics subjects in both Common Entrance Test and the Qualifying Examination by taking the marks in equal proportions, the Engineering rank list will be prepared and published. Based on their Rank student are selected for admission.

Admission through COMED-K:
Both Karnataka and non-Karnataka candidates can write COMED-K exam. The qualifying examination prescribed for admission to B.E. is 2nd PUC or 10+2 higher secondary or equivalent Examination recognized by State / Central Government.

Admission through Management Quota:
Candidates should have passed with a minimum aggregate of 45% marks in Physics, Chemistry and Mathematics (PCM) and should have passed these subjects individually. Physics and Mathematics are compulsory subjects along with Chemistry or Biotechnology or Biology or any other Technical vocational courses as one of the optional subjects.

Admission to Post-Graduate courses:
For admission to M.Tech candidates need to qualify PGCET examination conducted by KEA or GATE. Candidates with a B.E/B.Tech/B.Arch. degree in the relevant discipline with at least 50% marks in aggregate are eligible.

Admission to MBA/MCA:
Admission is only through competitive entrance tests PGCET/MAT. It is open to candidates who have a 3-year bachelor's degree from a recognized university with not less than 50% of the marks in aggregate of all the years of the degree examination. In case of candidates from Karnataka belonging to SC/ST and Category-1, the aggregate percent of the marks of all the years of the qualifying examination shall not be less than 45%.

For MCA, candidates who have passed a 3 year bachelor's degree from a recognized university with not less than 50% of the marks in aggregate of all the years of the degree examination with Mathematics/ Statistics/ Computer Science/ Computer Programming/ Computer Applications/ Business Mathematics/ Business Statistics as one of the optional subjects/ electives at degree level are eligible. In case of candidates from Karnataka belonging to

SC/ST and Category-1, 45% of the marks in that subject are eligible for admission.

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

Our College U.G Programme cut off marks for KCET and Management given below: - (2013-14)

S N	Programme	Highest cut off %			Lowest cut off %		
		K-CET	Comed-K	Mgmt	K-CET	Comed-K	Mgmt
	UG PROGRAMMES						
1	Electronics & Comm. Engg.	4013	-	-	86518	-	-
2	Computer Science & Engg.	11510	-	-	91033	-	-
3	Mechanical Engg.	12345	-	-	86967	-	-
4	Information Science & Engg.	36169	-	-	69107	-	-
5	Electrical & Electronics Engg.	8142	-	-	90871	-	-
	PG PROGRAMMES						
1	Computer Network Engg	3616	-	-	14013	-	-
2	Computer Science Engg.	2346	-	-	15467	-	-
3	Digital Electronics	585	-	-	17993	-	-
4	VLSI Design & Embedded Systems	4228	-	-	18630	-	-
5	Design Engg.	3393	-	-	18654	-	-
6	MBA	232	-	-	4696	-	-
7	MCA	1231	-	-	4198	-	-

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

<center>**YES**</center>

Although the admission process is governed by the state government and is not in the control of the institution, the student profiles are analyzed every year after admission. This helps in understanding the social, economic and academic background of the students so that special attention is given to the academically weaker students and scholarships, fee waivers, concessions are offered to the students from economically weaker sections.

> The orientation programmes are conducted for the newly admitted students in order to sensitize them to the various on-campus facilities, regulations exam, procedures etc.
> Students with different learning abilities are catered to by providing additional coaching classes, tutorial classes etc.,
> Learner-centered education through appropriate methodologies to facilitate effective learning outcome are adopted.
> The programmes of teaching and learning cater to individual differences amongst learners
> The institution has a well-conceived plan for continuously monitoring the student progress.

> Also the scholarships from the state and central Governments, bank loans, book bank schemes etc., help them in solving their financial problems.

2.1.5 Reflecting on the strategies adopted to increase/improve access for following categories of students, enumerate on how the admission policy of the institution and its student profiles demonstrate/reflect the National commitment to diversity and inclusion.
  * SC/ST
  * OBC
  * Women
  * Differently abled
  * Economically weaker sections
  * Minority community
  * Any other

SC/ST and OBC:
Benefit to the weaker sections of society is provided as per the policies of the State government and students belonging to the SC/ST or OBC categories are admitted as per the norms of the State government. SC/ST students are provided with Scholarship or Fee reimbursement (Post Metric Scholarship to SC/ST's, Fee-Reimbursement to SC/ST's). Candidates of CAT-I (Parents annual income less than or equal to 2 Lakhs) and for CAT-IIA, IIB, IIIA, IIIB (Parents annual income less than or equal to Rs.44,500/-) are provided fee concession and extra boarding and lodging charges.
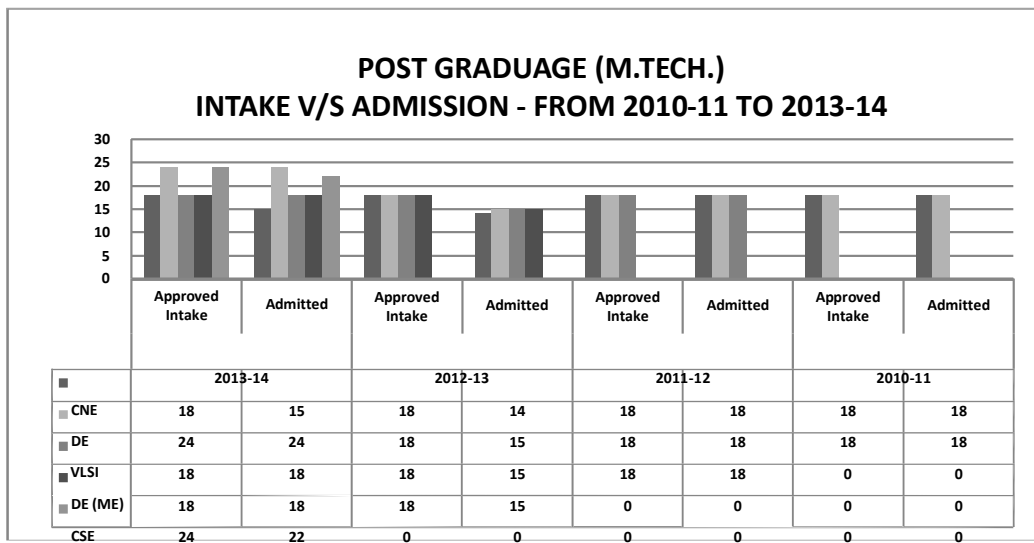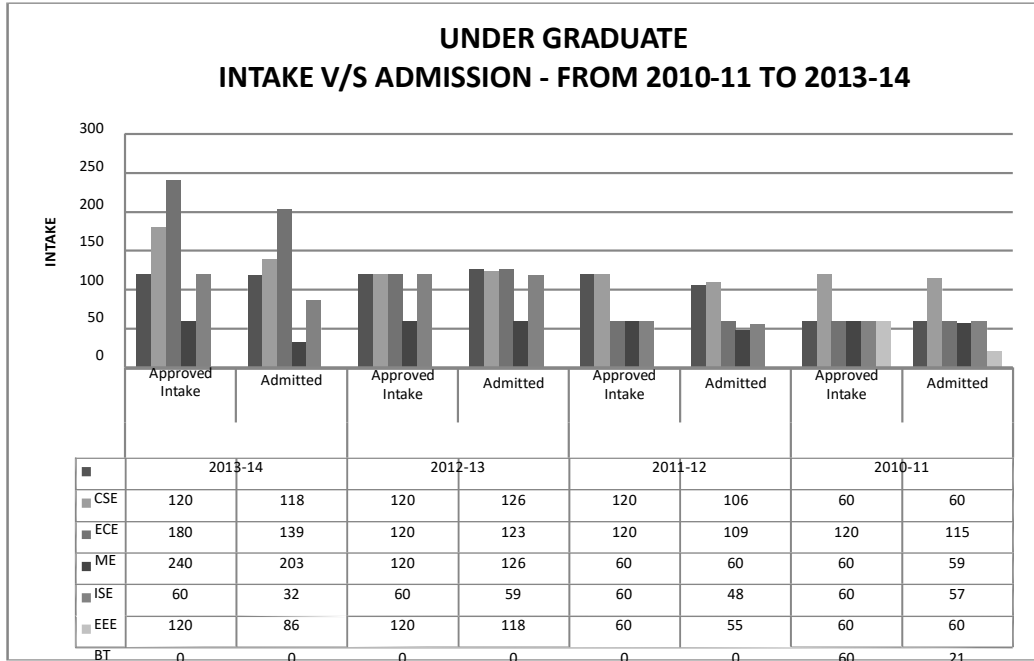
Women: There is a large women student population in the campus and the institute is gender unbiased.
Different categories of persons with disabilities: Persons with disabilities are provided special attention and care in the institute.

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

Programs	2013-14		2012-13		2011-12		2010-11	
	Approved Intake	Admitted	Approved Intake	Admitted	Approved Intake	Admitted	Approved Intake	Admitted
UG								
CSE	120	118	120	126	120	106	60	60
ECE	180	139	120	123	120	109	120	115
ME	240	203	120	126	60	60	60	59
ISE	60	32	60	59	60	48	60	57
BT	0	0	0	0	0	0	60	21
EEE	120	86	120	118	60	55	60	60
(A)	720	578	540	552	420	378	420	372
P.G.								
M.Tech. CNE	18	15	18	14	18	18	18	18
M.Tech. DE	24	24	18	15	18	18	18	18
M.Tech. VLSI	18	18	18	15	18	18	0	0
M.Tech. DE (ME)	18	18	18	15	0	0	0	0
M.Tech. CSE	24	22	0	0	0	0	0	0
(B)	102	97	72	59	54	54	36	36

MBA	180	87	120	97	60	51	60	56
MCA	60	32	60	21	60	51	60	51
(C)	240	119	180	118	120	102	120	107
Grand Total	1062	794	792	729	594	534	576	515

UNDER GRADUATE
INTAKE V/S ADMISSION - FROM 2010-11 TO 2013-14

	2013-14		2012-13		2011-12		2010-11	
	Approved Intake	Admitted	Approved Intake	Admitted	Approved Intake	Admitted	Approved Intake	Admitted
CSE	120	118	120	126	120	106	60	60
ECE	180	139	120	123	120	109	120	115
ME	240	203	120	126	60	60	60	59
ISE	60	32	60	59	60	48	60	57
EEE	120	86	120	118	60	55	60	60
BT	0	0	0	0	0	0	60	21

POST GRADUAGE (M.TECH.)
INTAKE V/S ADMISSION - FROM 2010-11 TO 2013-14

	2013-14		2012-13		2011-12		2010-11	
	Approved Intake	Admitted	Approved Intake	Admitted	Approved Intake	Admitted	Approved Intake	Admitted
CNE	18	15	18	14	18	18	18	18
DE	24	24	18	15	18	18	18	18
VLSI	18	18	18	15	18	18	0	0
DE (ME)	18	18	18	15	0	0	0	0
CSE	24	22	0	0	0	0	0	0

POST GRADUATE (MBA & MCA)
INTAKE V/S ADMISSION - FROM 2010-11 TO 2013-14

	Approved Intake	Admitted	Approved Intake	Admitted	Approved Intake	Admitted	Approved Intake	Admitted
	2013-14		2012-13		2011-12		2010-11	
MBA	180	87	120	97	60	51	60	56
MCA	60	32	60	21	60	51	60	51

The reasons for increase / decrease in the admissions are decided by the following factors:

> The college constantly reviews the situation with regard to employability and the demand from the public as well as the industry for certain courses.
> National and global employment scenario which is projected by industry and society survey.
> Trends for Post Graduate courses.
> Total number of seats available for admissions in the State.
> Policy decisions taken by various Governments on the overall Industrial growth in the Country.
> We have closed the Biotechnology branch during the year 2011-12, due to less admission.

2.2 Catering to Student Diversity

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

> The institution is fully adhering to governmental policies regarding the needs of differently-abled students. Seats are reserved at the time of admission in various programmes.
> The institution caters to the needs of differently-abled students as per the requirements of the individual ward. Such students are attached to faculty counselors to take care of their specific requirements.
> The institution aims at creating a friendly environment for differently abled students by providing ramps / lift / wheel chairs / barrier free environment to facilitate their easy movement.
> Institute makes separate seating arrangement for differently-abled students for the university examination.

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

–Yes-

An opening session-Orientation day will be organized by the institution at the beginning of the year for the fresher's and their parents. In the session, speakers including chief guest, principal, HODs will highlight the importance of the professional courses, course schedule, curriculum coverage, examination pattern and semester system, assessment method including facilities available at the institution. Faculty members also give an over view of the opportunities and challenges in the field of study of individual engineering department.

Accordingly, the faculty members interact formally and informally with the students for the first one week so as to concentrate on these programmes to train the students in the basics before commencing the regular subject teaching.

At the start of every semester the first two lectures of each subject are devoted to discuss with student to understand their capabilities and knowledge about the subject being audited.

Students are also encouraged to give seminar on topics of latest trends and technology.

The learning skills are also assessed through learning styles.

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

Weaker students are identified through their IA test performance. Remedial classes are conducted for them to improve their performance. Weaker students who are unable to complete a course during the regular semesters are also provided an opportunity to register it during the supplementary semester.

> Design based experiments in the regularly.
> Additional labs for courses not provided by the University.
> Remedial / special classes for weak students after college hours.

The diploma students who join as lateral entry in third semester need to complete bridge courses in mathematics. The classes are usually planned on Day-6 afternoons.

SN	Course Name	Department	Faculty
1	Bridge Mathematics I (For Diploma Students)	Mathematics	All faculty of Dept. of Mathematics
2	Bridge Mathematics II (For Diploma Students)	Mathematics	All faculty of Dept. of Mathematics

Days/ time	9.00 to 10.00	10.00 to 11.00	11.00 to 12.00	12.00 to 1.00	1.00 to 2.00	2.00 to 3.00	3.00 to 4.00
Day1							
Day2							
Day3							
Day4							
Day5							
Day6					Bridge Course-Dip. Students		

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

The college does not discriminate the students and its staff on the basis of their gender. Equal opportunities are given to both the genders. During the Orientation Programme for the fresh intake of students and during faculty induction programme for its new staff it is clearly informed to all of them. All the necessary requirements for the females both in the college and the hostel have been adequately taken care of the class room also there is no gender bias. There are mechanisms available to them to address any of their grievances.

While recruitment of Staff both Teaching as well as Supporting, there is no bias or reservation based on gender, caste, creed etc. During recruitment process, equal opportunities are provided for all eligible candidates. This in itself brings in a large uniformity in the Institute's approach towards the various sectors of the society.

Our institute has a very strong NSS team. As per the motto of NSS, the college plans lots of community activities which brings in the mind set of mutual co-existence, co-operation, help the needy, charity and respect towards under-privileged.

Organization of Birth Anniversaries of eminent Personalities such as Gandhi Jayanthi, Sir M Visveswaraya, Dr. Sarvapalli Radhakrishnan, etc., also motivates the students and staff communities to imbibe the great qualities of these eminent Personalities which in itself would help in sensitizing and creation of awareness of harmonic co-existence.

Every year, Women's Day is celebrated with great enthusiasm with girl students and lady staff members with good academic and teaching record being facilitated on that day. Due representation for ladies is given in all the committees constituted in the institution.

Girl students are provided separate waiting halls. 24x7 security is provided both in the campus and in the ladies hostel to ensure the safety of ladies. In case of emergencies in ladies hostel premises, senior staff accompanies the security to help the lady students. The students grievance cell comprises of senior lady faculty members.

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

The student's participation in classroom discussion, performance in assessment tests, performance during oral examination, participation in classroom seminars and questioning ability are the main tools the Institution uses for identification of advanced learners. The informal interaction with students also helps to identify the advanced learners. The learning needs of these talented students are addressed based on the following methodologies.

> Provide the additional training aids, such as, extended hour in the laboratories and also provide special coaching.
> Participation of students in value added courses, content beyond syllabi programs, Social programs. Teacher / Mentor interacts with students regularly and identifies their needs, the results of Electives and other subjects.
> By conducting the special additional sessions and tests on problem solving. Organizing experts lectures from renowned experts
> Organizing industrial visits.
> By organizing competitions on paper presentations, projects, gaming, software development etc.

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

It is indeed heartening to note that there are few dropouts in UG and PG in the last few years as the institute has a sound system of identifying such students and counseling and mentoring them.

Academic performance of the students from the disadvantaged sections of society, physically challenged, slow learners, economically weaker sections etc. is detected by the teachers during their lectures in classroom. We use marks as index for identifying slow learners. These students who do not seem to cope up with the pace of learning are advised and counseled by the faculty members and the Head of the department. They are specially advised and counseled so as to help them improve themselves. Based on their performance, students are identified as slow and advanced learners. The morale of the slow learners is boosted by counseling sessions, remedial classes and intensive interactive sessions.

> Learning style test is also used to identify their learning methods.
> Continuous evaluation provides opportunity for counseling students with feed back to enhance their academic performance and behavior.

A Senior Faculty has been appointed as Class Mentor, who provides orientation and guidance and also listens to student's grievance and provides

guidance. The training and placement services also facilitate counseling and academic to students.

Students are counseled periodically, fortnight / month, about their academic performance, financial problem, hostel problem and other personal problems. If required, parents are invited for counseling along with the students. Student's progress reports are maintained by the respective Department HODs from first to final semesters. Parents / Guardians are informed about the performance of the students on monthly basis. In addition to counseling the students regular parent teacher meetings ensure that there are nil drops out.

2.3 Teaching-Learning Process

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

Normally academic year starts in August of every year before which VTU circulates the academic calendar which includes details such as reopening date, last day of working, block dates for practical / theory examinations etc.,. On receipt of the VTU academic calendar, a separate committee is formed to prepare the college academic calendar / hand book, which comprises of the following:
1. Vision and Mission
2. VTU Rules and Regulations
3. Information about the Departments
4. Functional Committees
5. Contact Information of Functional Committee Members
6. Academic Events
7. Assessment Schedules
8. Sports Schedules
9. List of Holidays
10. Schedule of co-curricular and extracurricular activities.

The Teaching Learning Process is as follows:
> Before the beginning of each semester, Heads of the Departments calls for subject preferences by the faculty and subsequently based on this preference list makes the subject allotments for the ensuing semester.
> After the subject allocation, the faculty prepares a detailed course file while includes Lesson Plan, Notes and other study material, previous year university question papers, transparencies, PowerPoint presentations, question bank, solution bank etc., in concurrence with the college academic calendar.
> The course file is evaluated by concerned Head of the Department and Principal.
> Each student is provided with a hard copy of the hand book and academic calendar so that they are aware about various important events / activities well in advance.
> Copy of lesson plans is shared with the students during the introductory lecture at the beginning of the semester so that the student is aware of the

entire flow of the progress of lessons in each subject and also about the pre-requisites pertaining to that subject.

> Time Tables are prepared in such a way that instead of the stipulated four hour sessions per week per subject, each subject is given five hours per week. The additional fifth hour is made use for tutorial / remedial classes wherein the flow of lessons in the previous four hours is discussed in detail and student's doubts with respect to various aspects of the subject are cleared. Also, additional problems are solved during these classes.

> Feedbacks from the students and other stake holders are collected periodically when teaching is in progress and concerned faculty makes use of the same to readress the requirements.

> As per VTU norms, Institute conducts three Internal Assessment Tests. The students performance evaluation in these tests is intimated to both students and parents. Subject teachers and mentors conduct counseling sessions to weaker students so that their academic performance can be improved in the future tests / examinations.

> With respect to practical laboratory classes, a detailed laboratory manual pertaining to each laboratory is prepared well in advance and circulated amongst the students. These manuals include a detailed explanation about the various experiments which would be conducted under these laboratories. It also includes viva-voce questions related to the laboratory. At the end of each term, continuous evaluation of students is conducted which includes mock viva and also laboratory tests.

> In addition to theory and practical classes, each department organizes Guest / Expert Lectures from eminent Senior Professors / Industry experts in relevant subjects pertaining to that semester so as to enrich the students knowledge on the various novices of the subjects.

> Feedback from students regarding faculty is collected in a standard printed format and the same is analyzed with respect to aspects such as punctuality, preparedness, ability to clear doubts, availability of teacher beyond class hours etc.,

> At the End of Term University examinations are conducted as per the university calendar which is centrally evaluated by the university and the semester results are published before the beginning of the next semester. Exam Coordinator under the guidance of Principal facilitates the smooth conduction of the examination.

> On announcement of VTU results, the department conducts a detailed result analysis wherein performance of students for each subject is evaluated and reasons for failure is deliberated upon.

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

Although the institute is not having an IQAC as this is our first NAAC preparation, the institution has an Academic Co-ordinator, who is involved in the process of helping the faculty members to prepare the teaching plan for each subject and to maintain the log book specifying the details of the topics taught in the classroom and entering the marks for various tests and daily attendance.

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

Lecture method and Interactive learning: The faculty use chalk and board and audio visual aids in teaching. Students are also encouraged to actually interact during the lecture hour by getting the doubts clarified on the spot.

Project-based learning: During the period of study in the 6th to 8th semester, many real time projects are given to the students and they are guided by both faculty and Industry / Research personnel. Over 50% of the final year UG and PG projects are Industry based real time projects.

Computer-assisted learning: The College has over 1040 computers, 104 printers, application softwares and system software / languages. These are effectively used for teaching. The students are also encouraged to develop softwares for the solution of the assignments and tutorials.

SMART classes: All the departments of the college have a SMART class room. These are in addition to the LCD projectors and screen.

Experimental learning: Students do 2 to 4 laboratory courses per semester from 1st to 7th semesters. More than the required number of experiments as specified by the university is performed. All the laboratory have excellent facilities, both hardware and software based. For the experiments detailed instruction manuals are provided. The observations are checked and verified by a faculty and record books are maintained systematically. Two faculty members and one instructor are assigned for each practical class. Laboratory classes are software or modern hardware based.

Seminars: Guest lectures are arranged by each Department every year by eminent people from Industry and Academic and Research Institutions are invited. One or two day workshops and seminars are also arranged frequently by each Department. One Seminar period is conducted every month from higher semester onwards. During this period students give seminars on technical topics.

Others: Technical Societies and Student chapters of National / International Associations are active and students are encouraged to present technical papers at National/ International Conferences. During the academic period of stay, many Industrial visits are arranged to the nearby industries and also an Industrial Tour is arranged in the 6th semester by the Departments. Through these the students visit many industries across the country.

The student attendance in the classes is entered and this is communicated to the students. The Internal Marks system mandated by the University is based on the marks obtained by the student in the three continuous assessment tests and attendance. These are computerized. There is complete transparency in the

internal evaluation of the students. Progress (marks and attendance) is conveyed to the students regularly and also to the parents periodically.

The college supports student-centric learning through its efforts at creating a learning environment which allows students to think, answer and ask questions. The basic strategy adopted is to provide students with a diversity of learning experiences. Being a common teaching method, lectures are supported by assignments, discussions, field work and projects.

The student-centric learning is promoted through different types of interactions to ensure that real communication takes place in the classroom. There are various methods used to make learning student-centric. The strategies in this regard are as follows –

1. The lectures are made more interactive.
2. The teachers adopt presentation and group discussion method to make the topics more interesting.
3. The teachers frequently give the illustrations and discuss the special technical conditions to acquaint the students with the practical insight of the subject.
4. The visits are arranged to industries, institution of higher education and research, national laboratories and non-governmental organizations to make the subjects more informative.
5. The Practical Training manual is made available to the students of all classes which contain suitable assignments in order to develop reading and research habits.
6. Students counseling by individual mentor are provided.
7. Strengthening of library resources and services.
8. National level symposiums in all departments provide a platform for the students to acquire additional knowledge apart from regular class teaching. More over the students themselves organize and participate in various technical events. These programs are fully "student-centric" and they nurture their organizational and management skills apart from enriching their technical knowledge.
9. Magazines and newsletters help the students to showcase their literary and technical creativity making learning more exciting.
10. The college offers a lot of support services to its teachers for making the learning student centric.
11. The college provides a well stocked library with a collection of the latest books and journals which the faculty uses effectively to provide comprehensive and latest information to the students. Students are also encouraged to use the library independently that enhances their knowledge.
12. Apart from it, the college provides a state of the art seminar hall where students participate in GDs, Debates and Seminars.
13. The college also encourages the use of internet and computers by the staff and students to keep them abreast of the latest developments in their respective field of study. The Emphasis is on helping the students to acquire critical thinking, interpersonal communication skill, listening, problem solving and Knowledge management skill also Team work and group interaction all of which enable the students for lifelong learning.

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

The college concentrates on making the students original thinkers. To sow scientific temper through critical thinking and logical reasoning that can trigger creativity and analytical skills.

The faculties motivate them to participate in various extra murals activities in technical festivals. The long list of prizes won by our students in technical festivals and other state level competitions bears a testimony to it.

To encourage the scientific temper among students, the faculty engages the students in various practical works on engineering labs and computer labs. To sharpen the critical thinking among students, various GDs, debates and seminars are organized in which students explore new ideas and also get a chance to listen to the expert views of eminent professionals.

All the departments have professional society associations under which several programs are conducted to nurture creativity and scientific temper among the students.

The programs organized by the associations include
> Guest lecturers in latest topics
> Expert lectures in emerging technologies
> Student seminars
> Workshops to enhance technical skills of the students
> Technical Quiz
> Paper presentations
> Mini projects
> Technical visits
> Essay writing
> Robotic games
> State level technical symposiums
> National and international conferences.

2.3.5   What are the technologies and facilities available and used by the faculty for effective teaching?

> Institute has subscribed for online database which includes journals and transaction papers from IEEE, ACSE, ELSEVIER, SPRINGER etc.,.
> Live lectures are beamed as per a regular schedule published by VTU e-Learning Centre across the V-SAT connectivity (EDUSAT)
> High speed Internet connectivity across the campus enables access of open e-resources, free journals, e-books etc., to the students / staff.
> Hosting of Technical webinars of Industries such as Infosys, TCS, HP, Microsoft etc., to the students with prior intimation.
> Webinars by Industry.

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

> The college sponsors and arranges FDP/ workshop for faculty member.
> Guest lectures by eminent people from industries/other academic institutions are arranged at regular intervals.
> The College sponsors and encourages the students and the faculty to present the papers.
> The encouragement to the faculty is given to publish paper in the refereed journals.
> In the intranet IEEE journals are available online.
> Blended learning through hands on workshop.

Through professional society chapters like IEEE, ISTE, CSI, institute organizes students' events in order to bring in awareness of advances in technology to them.

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

> All the students get the academic and personal guidance from the concerned subject teacher /Class Teacher/ Mentor.   **2522**
> The training and placement department imparts and facilitates soft skill / aptitude training and also counseling with respect to the placement opportunities for eligible students. (All final year students).   **420**
> Through National Students Scheme (NSS) a large number of students are trained and guided with respect to social ethics, societal responsibilities, respect towards Women and elders and also overall personality moulding. This happens through organizing Yoga classes, meditation classes, counseling sessions from professional counselors on psycho-social matters.   **200**
> NSS activity also gives the social ethical awareness among student (about 100 students per year). It also gives training for psycho-social support.
> The personality development programs are organized for about **200** students per year.

2.3.8   Provide details of innovative teaching approaches / methods adopted by the faculty during the last four years? What are the efforts made by the institution to encourage the faulty to adopt new and innovative approaches and the impact of such innovative practices on student learning?

The following innovative teaching methods are adopted by the faculty.
> Computers are used for teaching purposes and internet facility is available to students and faculty.
> SMART class rooms, OHPs, LCDs, videos etc. are used for teaching purposes.

> Online availability of IEEE journals in the intranet.
> Good collections of recently published books in library
> Well structured lesson plans are prepared/revised for all theory and practical courses on a period to period basis, scrutinized by HODs and made available in the website for students access.
> Teachers are encouraged to publish research papers in Journals and present papers in Conferences.
> Teachers are sponsored for doing Masters/ Ph.D. degree with leave.
> Teachers are deputed with full financial support for attending Workshops/ Conferences / FDPs.
> Research and R&D are promoted and encouraged and efforts are made to obtain sponsored R&D and consultancy projects.
> Quiz, Student presentations, showing videos and pictures with respect to working principles.
> Institution encourages all faculty to be certified by Wipro Mission 10X – Innovative teaching methodology.
> Two faculty members are certified by Cambridge university, provided new teaching aids and props.

The impact of such innovative practices is that the students are exposed to new modern methods of teaching and more and better understanding of the knowledge transferred to them within the allotted time. It helps to assess and improve the teaching-learning process that happens from the formative to summative period.

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

College library is equipped with latest editions of the university prescribed textbooks and reference books. Institute has also subscribed for various e-resources like online database, and textbook CD ROMs. Every faculty in the Institute is mandated to make use of all these resources in the day-to-day teaching learning process. Since the e-resources are available in the Local Area Network on the campus, it is easy for the faculty to access this enormous resource and improve the class room teaching material by including the latest technical know-how.

Students can also access all these resources either online or by borrowing books from library and prepare well in advance to a stipulated class room lecture so that the class room interaction becomes meaningful.

Library Staff attend training and short term programmes in order that they are equipped with the latest methods of cataloging and classification of library resources so as to make it available easily to both students and faculty.

A well stacked reference section also plays a very important role in enriching the teaching material of the faculty. Adequate care is taken to stack valuable and costly books in the reference section so that it is easily available to both students and faculty.

In addition to the above, each department has its own departmental libraries which stacks commonly used text books so as to cater to the VTU curriculum and is available easily to the faculty in addition to the books available in the central library.

A digital library which is set up using hi-end systems supported with high speed Internet connectivity (20Mbps) also plays a very important role in augmenting the material required for the class room lectures.
Reprographic facility available in the central library also augments the overall teaching learning process.

The newspapers / magazines / printed journal sections in the library adds on to the overall learning material required for making the class room deliberations meaningful. Most of the newspapers and magazines are available in the separate technical / science sections which is enthusiastically read and made use of in the classroom lectures. This also helps the faculty getting to know the state-of-art and latest technology in the relevant fields.

A repository of all the previous year's university question papers guides the students during their examination preparation.

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

- NO -

The college has a well laid down system to plan the schedule in advance and monitor the coverage of syllabus on regular basis to ensure curriculum completion within the given schedule. The affiliating university, VTU, Belgaum follows semester systems and prepares a tight schedule for completing the class work. The planned time frame and the academic calendar for each semester gives scope for extra hours and that is fully exploited by the institution. At an average 95% of the syllabus is covered w.r.t. theory.

2.3.11 How does the institute monitor and evaluate the quality of teaching learning? In every semester the institute conducts three continuous assessment test (CAT).

The CAT 1 is conducted as a 1 hour 15 min test. The CAT 1 covers portion of the syllabus. CAT 2 is conducted at the middle of the semester covering the part of the syllabus. CAT 3 is conducted at the middle of the semester covering the remaining syllabus. The CAT is given a weightage for internal assessment marks. In addition to the above assignments, extra coaching classes are also conducted. The performance of the students in each subject and the ability of the teacher concerned in producing better results are evaluated. The teaching is evaluated through feedback.

2.4   Teacher Quality

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

Highest Qualification	Professor		Associate Professor		Assistant Professor		Total
	Male	Female	Male	Female	Male	Female	
Permanent Teachers							
D.Sc./D.Litt.	--	--	--	--	--	--	--
Ph.D.	12	02	02	--	01	01	18
M.Phil.	--	--	--	--	01	--	01
PG	04	--	08	01	98	41	148
UG	--	--	--	--	05	07	12
							179
Temporary Teachers							
Ph.D.	--	--	--	--	--	--	--
M.Phil.	--	--	--	--	--	--	--
PG	--	--	--	--	--	--	--
Part-time Teachers							
Ph.D.	--	--	--	--	--	--	--
M.Phil.	--	--	--	--	--	--	--
PG	--	--	--	--	--	--	--

The institution follows the VTU and AICTE guidelines in selection of faculty members in order to ensure that qualified and competent persons are selected by a well defined procedure. The effective mechanism in recruiting qualified faculty is thus achieved. This is periodically done based on requirement as per the student : staff ratio and to meet the changes in the university curriculum.

> Vacancies are advertised in leading national newspapers.
> AICTE qualification norms are followed while scrutinizing the applications.
> The screened candidates are called for an interview.
> A transparent recruitment policy is adopted while interviewing and recruitment of faculty. Each recruitment team comprises of the Head of the Institution, Head of the Department, the external subject expert / university nominee and senior faculty from the department. Based on the performance in the interview, a list of selected candidates is prepared.
> In addition to regular faculty, Institute also appoints senior professors and Industry experts as visiting faculty.
> The selected candidate is appointed initially on probation for one year. The Governing Council ratifies his / her appointment based on the appraisal report approved by the principal.

Process of Recruitment:
> Through News paper advertisement.
> The submitted resumes are analyzed by the HODs and the eligible candidates are intimated for interview by sending e-mail/Post / phone after fixing the interview date.
> The candidates are asked to demonstrate their teaching skill by way of taking class for few minutes, a presentation on their areas of interest, in the presence of the Interview Committee.
> A personal cum technical interview will be conducted to assess the knowledge of the candidate.
> The selection committee members analyze the performance of the candidate and submit the report to the Head of the institution.
> The Director / Principal will issue the appointment order.
> The appointments are approved by the Governing Body during its regular meetings.
> The college has sufficient number of qualified and competent teachers to handle the courses offered.

Retention Strategies
> Institute extends latest AICTE pay scales to all faculty members along with statutory allowances.
> Institute has adopted transparent standard policies / norms for increments and promotions.
> Institute has policies towards sponsoring faculty for higher studies.
> Institute deputes faculty with financial assistance to attend National / International conferences, workshops, seminars, symposiums etc.,
> Maternity Leave is sanctioned to eligible faculty as per Institution norms.
> Gratuity is extended to all faculty.

2.4.2 How does the institution cope with the growing demand/ scarcity of qualified senior faculty to teach new programmes/ modern areas (emerging areas) of study being introduced (Biotechnology, IT, Bioinformatics etc.)?

Provide details on the efforts made by the institution in this direction and the outcome during the last three years.

Institute recruitment process is open throughout the year and whenever Institute gets qualified senior faculty, it conducts interviews and appoints them. Institute has a policy towards inviting senior professors / industry experts as visiting faculty to teach new programmes and modern subjects whenever required.

> As far as the Engineering branches such as Computer Science & Engineering, Electronics & Communication Engineering, Electrical & Electronics Engineering is concerned, our institution has made a lot of efforts to recruit the best quality teachers. The institution conducts seminars on all branches of Engineering at regular intervals to upgrade the technological skill of our teachers.

> To attract the new faculty and to retain the existing teachers the college provides requisite facilities like subsidized transportation for teachers coming from a distance, research facilities like library, internet etc.
> The institution is paying higher scales to more qualified teachers or resource persons to meet the demand of scarcity.
> More guest lectures are arranged in the identified and specific fields.
> As stated earlier, the college has more than sufficient number of qualified and competent teachers to handle the courses offered.
> In addition, the college invites experts to deliver guest lecturers in selected areas of interest.
> Guest faculty members are invited on regular basis to update the knowledge of faculty and students on special subjects such as Cloud Computing, Automation, robotics, VLSI design etc.
> The last three years, Institute has invited and appointed Senior Professors / Industry Experts to teach new programmes.
> Further faculty have been sponsored to attend FDP / Workshops regularly to enhance the knowledge and skills in the emerging areas.

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

The Management has a positive attitude for the professional development of the faculty in acquiring the knowledge of recent developments and engaging them in the research activities.

a) Nomination to staff development programmes

Academic Staff Development Programmes	Number of faculty nominated
Refresher courses	12
HRD programmes	--
Orientation programmes	08
Staff training conducted by the university	03
Staff training conducted by other institutions	08
~~Summer / winter school~~ , workshops, etc.	92

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

> Teaching learning methods/approaches
  * Training in the use of modern teaching aids like LCD Projectors, smart class room devices etc.,* Pedagogical techniques for new faculty by experienced Professors.
  * Orientation Programme at the onset of academic year

> Handling new curriculum
  * Deputing Faculty members to FDP Programmes conducted by the University and its affiliated Colleges

> Content/knowledge management
  * Use of multimedia Contents
  * Employment of modern Pedagogical aids such as Power Points, smart boards, three dimensional screen, LCD projectors, Laptop and OHP's.

> Selection, development and use of enrichment materials
  * User friendly notes by other learning centres and own notes to enrich the learning process by the students.
  * Employment tools to ingrain the concepts into students for effective learning.

> Assessment
  * Delivery of pep talk lecture that will be assessed by colleagues.
  * Feedback through test at the end of the training session.

> Cross cutting issues
  * Motivation and arousing curiosity are given predominance
  * Enhancing of retention rate through periodic review process
  * Immediate application of concepts learned to the classroom environment

> Audio Visual Aids/multimedia
  * Training imparted in the use of audio visual aids/ multimedia devices
  * Encouragement of the constant use of audio visual aids/multimedia in the delivery of class lectures

> OER's
  * The other Educational resources like web based learning handbooks, simulation/ physical models are also encouraged to be utilized for lecture delivery.

> Teaching learning material development, selection and use
  * Preparation of laboratory manuals as per ISO standards.
  * Step by step instruction to make use of application software.
  * Encouragement to write books.
  * Encouragement to develop application notes.

c) Percentage of faculty
  * invited as resource persons in Workshops / Seminars / Conferences organized by external professional agencies: 13%
  * participated in external Workshops / Seminars / Conferences recognized by national/ international professional bodies: 60%
  * presented papers in Workshops / Seminars / Conferences conducted or recognized by professional agencies: 55%

2.4.4   What policies/systems are in place to recharge teachers? (eg: providing research grants, study leave, support for research and academic publications teaching experience in other national institutions and specialized programmes industrial engagement etc.)

> Incentives for possessing Ph.D. qualification and sponsorship by providing study leave for full time and OD for Part time.
> Less work load for faculty pursuing Ph.D. and innovative research facilitation to pursue research work by procuring necessary equipment, software etc.
> Faculty possessing UG qualifications are encouraged to pursue their PG to comply with the AICTE rules and regulation.
> Faculty are encouraged to attend FDP/Seminar/Workshop etc and they are also sponsored to attend conferences. Publish papers in national, International journals and conferences.
> Award for best presentation on research Publications.
> Institute offers desktops and laptops with Internet facility to senior faculty.

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

The Institution provide the following
> 75% faculty are certified by Wipro Mission 10X.
> Dr. Badrunnisa.S and Prof.Manjula were certified by Wipro and Cambridge INTL University for Teacher's and Trainer's for new teaching approach, active learning, practice and core mode.
> The faculty members are encouraged to participate in the conference and workshops both at national and international level. They are given OD for participation and also TA/DA.
> Faculty provided with PC and internet facility in the department.
> Wi-Fi connection in the campus for all. Access to large number of on-line journals.

2.4.6 Has the institution introduced evaluation of teachers by the students and external Peers? If yes, how is the evaluation used for improving the quality of the teaching-learning process?
- Yes -

> Evaluation of teacher's performance is done every semester.
> Evaluation of teachers by students:
> The institution has a feedback system to evaluate the teachers by students. At the middle of each semester, the feedback from students is obtained by issuing printed questionnaires relating to all subjects. In this feedback, questions regarding performance of the teachers are sought. Their feedback is analyzed by the Principal and he gives necessary directions to the concerned HODs for the improvement in the teaching methods and appropriate corrective actions of the staff.
> External feedback is taken in parents meet.

Self appraisal of Faculty Members:
> All the faculty members are required to submit self appraisal report every semester in the prescribed format.

Review of faculty self-appraisal final report:
> BITM has evolved a standard method of evaluating the teaching research and administrative activities of the faculty. The information furnished by the faculty member will be analyzed by the HOD, Principal and the remarks sheet of each faculty member is submitted to the management.

2.5 Evaluation Process and Reforms

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

The stakeholders are ensured of the evaluation process by the following means:
> Students are required to attend an orientation programme in the beginning of the first semester. In this orientation programme, evaluation process is explained in detail to the students as well to the parents. Introduction to the evaluation process is also explained to the students by the respective departments.
> Furthermore, the students are guided by the respective mentors in every semester. The mentors conduct regular meeting with the students and also meet their parents once in a semester. The co-ordinator interacts with students every semester to get feedback from students and also clarifies any doubts regarding the examination process.
> The Stakeholders of the institution i.e. students and faculty members and even the parents of the students are informed about evaluation process by giving general instructions mentioned in the prospectus of the institution.
> The periodic instructions issued by the university are promptly communicated to the students.
> The students are individually provided with copies of the university syllabus which included the detailed evaluation procedure. Likewise they are informed at the start of the session regarding the internal assessment tests in the gap of three months.
> Students are clearly made aware of the eligibility conditions required to appear in the final exams.
> They are informed of the criterion of the internal assessment.
> The evaluation is the integral part of teaching learning process. So, the institution makes effective arrangements for the smooth application of the rules about the evaluation processes.
> The college has developed a proper Mechanism for this purpose.
> Time to time staff meetings are also conducted concerning evaluation process.
> Institute notifies related evaluation process and related documentation on the notice boards. This include frequency nature of internal and University evaluation.
> Display test circulars on notice board and printed Calendar of events.
> Information through sms.
> Maintaining hard copy records and access to the same by students and faculty when required.
> Service rules and regulations book is given to each faculty.

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

University Reforms:
> The University constitutes a board of examiners separately for central valuation of each category (for various sciences, for humanities and for various engineering and technology disciplines) consisting of a Chairman, Chief Examiners and Examiners.
> The University also provides for revaluation of the answer scripts as well as supplying photocopies of the evaluated answer scripts. In case the student is not satisfied with the outcome of the revaluation or the marks obtained by him, university has a provision to go in for a CHALLENGE RE-VALUATION. However the marks obtained by the student will be the best of all the above. The institution continuously reviews the evaluation process done internally and necessary changes as and when applicable/ required are implemented.
> Digital evaluation.

Institutional reforms:
> Though only three internal assessments is required as per the affiliating university, the college has been experimenting the evaluation process with class test. In addition to the above, regular assignments are also part of the evaluation process.
> Also experimenting with preparatory exams.

2.5.3   How does the institution ensure effective implementation of the evaluation reforms of the university and those initiated by the institution on its own?
> The evaluation reforms of the university are followed in the best of the spirit.
> The evaluation is all fair; the students are satisfied by showing them the evaluated performance in the answer sheets.
> Any doubt about evaluation is made clear to the students.
> All record is maintained i.e answer sheets, award lists etc. internal tests are taken and record is kept. Whenever term tests are taken the results of the students performance/awards are shown to the students to encourage them or counsel them for better future performance.
> The performance of the students in the internal examinations is communicated to the parents also.
> The institution follows the examination system as prescribed by the VTU, Belgaum.
> Those students who participate in NSS and sports activities are encouraged to attend the retest to have their internal marks.

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

University is the sole authority for implementation of reforms in examination and evaluation. For bringing about a positive change in the evaluation practices, the institution adopts both formative and summative methods of evaluation.

Formative evaluation process
> Institute arranges Class test, Industrial visit, Group Discussion, Verbal test, Guest lecture, assignment, etc., for the students. Students are asked to submit the report on visits and expert lectures.
> Institute organizes workshops and programs on technology and sciences and evaluates the students at the end of the program.
> It also encourages the students to take up mini projects, paper presentation, attend workshops, Seminar etc. which provides forum for formative evaluation

Summative evaluation process
> Institute conducts Three Internal Assessment Test, Practical and viva voce examinations
> University examinations
> Institute sends the student to attend intercollegiate events and the events organized by university at the end of academic term.

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

The Institute makes ample effort to have transparency in the internal assessment. The test answers, scheme of evaluation and model papers are given to the students. Student gets opportunity to discuss the performance in the tests with the concerned teachers. During these discussions, students also get to know the way to answer on specific questions.

Being an affiliated college, we strictly follow the norms mandated by the university. Behavioral issues are thoroughly enquired by a committee comprising a senior professor along with HOD and appropriate actions as approved by the staff council are taken. It is also communicated to the university and to the parents.

However, while evaluating practical subjects and award of marks for the experiments, weightage is given to continuous evaluation which includes attendance, extension of experiment, communication of proper conclusion for the experiment performed etc.,

Internal Squad are deputed during Internal Assessment Test.

Internal Assessment books are shown and discussed in the class.

End semester Internal Assessment marks are displayed on the Notice Boards so as to clarify any discrepancies that might of creped in due to typographical errors.

The curriculum takes care of the communication skills by way of conducting Communication Lab in the fifth semester for all branches of engineering.

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

> Graduate attributes are the qualities, skills and understandings a university community agrees its students should develop during their time with the Institution.

Before completion of the final degree program, all the students are rigorously assessed by the industry and by the teaching staff to gauge the talent and the outcome they have received during the study period. A special training is being imparted to the graduate students and advise them to follow the books of "Learning and Employability" for the better attainment of the students.

> Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization for the solution of complex engineering problems.
> Problem analysis: Identify, formulate, research literature, and analyse complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences and engineering sciences.
> Design/ Development of Solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for public health and safety, and cultural, societal, and environmental considerations.
> Conduct Investigations of Complex Problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
> Modern Tool Usage: Create, select, and apply appropriate techniques, resources and modern engineering activities, with an understanding of the limitations.
> The Engineer and Society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
> Environment and Sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
> Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

> Individual and Team Work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
> Communication: Communicate effectively on complex engineering activities with the engineering community and with the society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
> Project Management and Finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
> Lifelong Learning: Recognize the need for and having the preparation and ability to engage in independent and lifelong learning in the broadest context of technological change.

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

At the college level:
> Institute has a well-represented grievance redressal cell chaired by Principal wherein all issues related to evaluation at Institute level can be discussed.
> Display of internal assessment marks on the Notice Board also plays a very important role.
> At the end of each Internal Assessment test, students have the opportunity to discuss the evaluation of his blue books with subject teacher and get redressal for any of their grievances.
> Genuine cases are given due consideration while awarding internal marks.
> Genuine absentees and failures are given assignments and re-test so as to help them score better internal marks.

At University level:
> University provides opportunity of revaluation /Challenge revaluation for the students to reevaluate their marks. Revaluation / Challenge Valuation for End Semester examination is carried out by expert examiner appointed by the university. Also students have an opportunity of requesting for Xerox copies of their evaluated answer books.

2.6. Student performance and Learning Outcomes
2.6.1 Does the college have clearly stated learning outcomes? If 'yes' give details on how the students and staff are made aware of these?

Yes, each program in the institute has its clearly defined learning outcomes which are aligned with the program educational objectives. Most of these are common across departments and a few of these are program specific. These learning outcomes are widely publicized through
> Display boards in various departments
> Curricula books
> Rules and Regulation books
> ISO quality manual

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

> To monitor the student progress, Institute has the continuous evaluation which consist of three tests end term semester examination (once in term by VTU), practical and viva voce examination. Using this mechanism Institute finds out the progress of the student and end result is made use of as mechanism and feedback to improve the academic process.
> Institute communicates the marks obtained in the internal examination to the parents and students regularly by SMS/E-mail and Post.
> It organizes regular parents and guardians meet to have a communication with students and parents.
> Affiliating university also conducts the theory/practical examination at end of semester. The result of same are communicated to the students and parents.

Percentage of Passed students of the last four years

B.E PROGRAMME

COURSE	2012-13	2011-12	2010-11	2009-10
CSE	97%	93%	89%	100%
ECE	93%	98%	90%	94%
ME	100%	85%	94%	88%
ISE	92%	89%	86%	98%
EEE	73%	89%	91%	--
BT	100%	100%	96%	100%

PG PROGRAMME

COURSE	2012-13	2011-12	2010-11	2009-10
CNE	100%	100%	100%	100%
DE	100%	100%	100%	100%
VLSI	100%	100%	100%	100%
MBA	62%	65%	60%	63%
MCA	100%	100%	100%	--

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

> The teaching learning and assignment strategies that are followed by the institution are structured in the form of processes under ISO 9001:2008.
> To compulsorily conduct the classes for the stipulated number of days by compensating for any intended / unintended holidays

> Periodic reviews, feedback to keep track of the course of achievement of learning outcomes identify deviations, if any, and take corrective action on an individual as well as on the course basis.
> Materials are prepared for each learning outcome and given to students. Evaluation through test ensures that the outcomes are fully achieved.
> Learning styles test is conducted.

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

Every institute has social as well as economic responsibility. The courses run by college have both social and economic relevance. College understands its responsibility in the socio economic parameters.

> Training in communication and other quantitative aptitude skill development.
> To conduct Presentation skills and technical seminar course to its true spirit.
> Training in the technical subject aptitude through comprehension test so that the student will get an exposure to appear for the GATE / equivalent examination.
> Students are encouraged to become a member of EDC Entrepreneurship Development Centre to aspire for an entrepreneur, other students are encouraged to attend seminar / workshops / guest-lectures arranged under the aegis of EDU.
> Conducing technical symposium, competitions to express student's of their innovative ideas.
> Sponsorship to present/publish research papers in international conferences and journals.
> Encouragement to take up mini projects of social relevance where in innovation is an integral part and offering financial assistance for the successful completion of these types of project works.
> Institute has membership of IEEE and other online databases.
> Institute has VTU recognized research centers in all the departments.
> Institute organizes technical research paper competition for students.
> Institute conducts special programs to enhance the social and economical relevance of course.
> Institute organizes extension activities like NSS Camps, Blood Donation and tree plantation events. It also carries out social work in association with NGOs.

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

Institution has specified procedure to collect and analyze data on student learning outcome, the following points are adopted by the institute in this context:

> Discussion in the ISO Academic objectives meetings.
> Discussion in the fortnightly meeting by the principal with the heads of the departments that will help in the effective planning thus aiding in overcoming the barriers of learning.
> Result analysis of Internal Assessment and University Results.
> Providing Question bank of various subjects to the students.
> By showing answer books to students to make them understand their relative strengths and weaknesses.
> Minimum attendance limit for students to minimize absenteeism.
> Extra classes for weak students to solve their problems.
> The periodic evaluation of teachers helps in the improvement of learning outcome.
> Reports from the Class Committee meeting, faculty feedback, course meeting and the informal feedbacks are sent for review.
> Students are tested in IA with different levels of difficulty.

The above reports are analyzed and discussed in detail in the monthly meeting. The feedback about pace of the syllabus coverage, the teaching methodology employed, and the conduction of laboratory exercises is summarized from such reports. Any shortcomings reported are addressed by mentoring the staff, planning additional tutorial hours if needed, or by providing special study material to the students.

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

The college has a set mechanism to monitor the student's learning outcomes (Rubrix Tool)

> Attendance is compulsorily taken in each class.
> The class test and assignments are valued within a short duration and the marks are recorded, which acts as a ready reckoner for the academic progress of the students.
> The student's participation in the class and the marks scored in tutorials, assignments helps to judge the students by the staff members.
> Results of test, exams are recorded and evaluated every semester.
> The slow learners are taken care of by the mentors.
> As the entire lab courses are continuously assessed, students who lag in these courses are given additional help and guidance. They are also given additional lab practice.
> The faculty members are encouraged to conduct surprise tests, quiz to monitor the academic progress of each student.
> Students ability to explain and execute the problem is assessed in the labs.

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

Yes, the institution uses assessment and evaluation both as an indicator for evaluating students' performance. Institute and teachers use assessment/evaluation as indicator for performance evaluation of the students.

When the teacher plans the course, he/she formulates the objective for the course. The teacher uses the following factors to check fulfillment of objectives.

> In Internal Assessment Test questions are asked for different learning outcomes.
> At the end of lecture verbal questioning, objective test and feedback is taken.
> The student satisfaction level and application of mind is also evaluated.
> Faculty closely observes the lab skills developed by students.
> Design based experiments in the lab will help to identify students' application of the concepts.

Using above, if required the teacher can modify the teaching learning process. Institute also uses the evaluation and assessment measures to check whether objectives of program are fulfilled. It also monitors the progress of programs as per vision and mission.

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

To ensure a student centric learning, the institution adopts the following best practices in respect of teaching, learning and evaluation process:

> The institution is achieving its goals and objectives through well chalked out academic calendar which is distributed well before the commencement of the academic sessions to the students and teachers.
> Institute has implemented the Campus Management Solution for student-Teacher- Parent Module to monitor the teaching and learning.
> Institute has VTU e-learning program which supplements the teaching learning and evaluation.
> Complete transparency in admission, evaluation, faculty recruitment and administration.
> Appointment of mentors for continuous monitoring and assessment.
> Organizing seminars, workshops, industrial visits and study tours.
> Highly qualified and experienced teachers.
> Courses commence with introductory sessions.
> Organizing revision lectures.
> Organizing guest lectures by experts.
> Encouraging advanced learners to participate in various Curricular and co curricular activities.
> Felicitating meritorious students.
> Internal vigilance squad is appointed during examinations to curb malpractices.
> Teachers are evaluated regularly in every subject by the students.
> Continuous assessment enables effective performance of the student.
> Students undergo field work / industrial training in partial fulfillment of the curriculum which helps them to understand the practical aspect of their education.

> Orientation programs and bridge courses help the freshers to get familiar with all aspects of their program
> Smart classrooms with LCD, Projectors, Speakers, etc are provided in all departments.
> Faculty are encouraged with in-house pilot projects, sponsorship for short term training programs, conferences, workshops, etc and financial support for publication of research articles and text books.
> At BITM, we are conducting Wipro Mission 10X Program FDP for effective teaching learning method.
> The student performance is communicated to the parents by means of SMS.

** ** ** **

CRITERION III

RESEARCH, CONSULTANCY AND EXTENSION

3.1   Promotion of Research

3.1.1   Does the institution have recognized research center/s of the affiliating University or any other agency/organization?

Yes, the following departments of our institution are currently functioning as approved research centers under the affiliating university, VTU, Belgaum.

1. Chemistry
2. Mathematics
3. Physics
4. Computer Science & Engg.
5. Electronics & Communication Engg.
6. Mechanical Engg.
7. MBA

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

Yes, Our institution is having dedicated team of Research Committee in all Departments headed by the concerned HODs and it is very active in guiding both faculty and students to pursue research in leading edge technologies. Research Director may constitute a research advisory committee at the college level with outside experts.

A senior teaching faculty member in the department will be nominated as Research Objective Leader to represent the department research related issues to management Impact of the recommendations of research committee:
> Departments developed its own research lab facility to expedite research activities
> Many faculty members and students encouraged to attend national / international conferences
> Departments sponsored good number of faculty members for a national /international level technical events, workshops, FDPs, Seminars etc.,
> A good number of National / International Conferences, Workshops, FDPs are regularly being organized to update our knowledge on par with industry standards
> Guided the faculty members for getting the funded project and the required motivation is given for implementing the funded projects
> Sabbatical leave is provided with full motivation for the faculty members to pursue doctoral studies

> Regular technical talks / interactions are being organized in latest research topics by Director-Research for involving younger faculty members to pursue research
> Entertaining faculty Members for industrial consultancy projects in their field of expertise through Industry Institute Interaction Cell
> Maintaining the research status from VTU by publishing at least 2 quality research papers in national or international journal.
> Working to receive at least one externally funded project per department
> To attend at least one research seminal/symposia/workshop by every member of the faculty
> To mentor at least 2 graduate students to do research and subsequently to publish at least 2 papers in journal.
> To guide research scholars in line with university requirements.

Impact:
> Received funding from VTU – H&S – Rs.6.73 Lakhs
> Funding from VGST – ECE – Rs.20.00 Lakhs
> Funding Karnataka Council for Technical Upgradation – ME – Rs.49.5 Lakhs.

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

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

This institute has state of art research facilities to help students and faculty to pursue research. The research cell of the department gives required guidance / support for getting research projects and also to complete the research assignments with in the scheduled time. The principal investigator of funded projects encouraged in all aspects to complete the projects.

The institution offers full freedom to make them feel fully comfortable while executing the project. The possible reduction is also done in their teaching load so that they will readily submit the deliverables within the accepted time. College management continuously motivates students and faculty members for presenting their paper work in international conferences with full sponsorships.

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

As our institution follows student centric teaching and learning process, there is a lot of avenues for the student to interact with faculty for doing a research project which will benefit student, teachers and the institution. This aspect has become a part of both under graduate and post graduate course of our institution.

The institution encourages the students in all research activities. The following are some of the highlighting features:

> College regularly conducts seminars, guest lectures, conferences and technical symposium etc., for the benefit of both students and faculty members.
> They do interact with resource persons during the above events and develop their knowledge for doing the research.
> Faculty members are positive minded to share their technical exposure / specialized knowledge to other faculty members.
> Faculty members are constantly motivated to acquire higher qualifications with full support by providing necessary sabbatical leave and the required sponsorship.
> Students are encouraged to work with the faculty pursuing PhD in their discipline and publish papers in refereed journals.
> Magazine / Newsletters are published by highlighting the research activities of the faculty and students.
> Students are encouraged to undergo In-Plant training during their vacations.
> The students are encouraged to participate in different tech-fest, Science fair, Technical paper competitions.
> All the departments of the college also organize sponsored seminars to create curiosity among the students as well as to get a chance to meet the distinguished experts of the related area.
> The contribution made by the student is evaluated for the internal assessment in the 8th Semester project.

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

The Institutes has dynamic faculty with the potential of excellence in research. The Institute has 07 research centers having recognized research supervisors, guiding many research scholars in the various departments. The faculty members are actively participating in developing their career through pursuing Ph.D, in VTU and other Universities. Further, faculty also encourages students to undertake research projects.

Guiding student research:
The faculty members are actively involved in guiding student research. The papers are published by the students and faculty members of various departments in national and international conferences/ seminars and journals.

Leading Research Projects:
Many faculty from all the departments submitted research proposals as principal investigators to National funding agencies for grants which are awaited, i.e., Funding from VGST – ECE – Rs.20.00 Lakhs and Funding Karnataka Council for Technical Upgradation – ME – Rs.49.5 Lakhs.

Engaged in individual/collaborative research activity:
The faculty members are actively involved in pursuing research work and publish their findings in journals.

SN	Name of the Faculty	Area of Research	No. of Students Guiding
1	Dr. R N Kulkarni	Software Engineering / DBMS / OOMD	03
2	Dr. B M Vidyavathi	Data Mining	01
3	Dr. Rajashree V Biradar	Sensor N/w	02
4	Dr. Yadavalli Basavaraj	Maintenance Engg	02
5	Dr. V.Venkata Ramana	Production Engg	03
6	Dr. U Eranna	Control Systems	Awarded: 01 In progress:04
7	Dr. V C Patil	Ad-hoc wireless network	08
8	Dr. Machappa. T	Solid state Physics and Materials science	01
9	Dr. Suresh	Chemistry	02
10	Dr. K.S.R.Sridhar	Fluid Dynamics	01
11	Dr. G.P.Dinesh	Marketing	02

3.1.6 Give details of workshops/ training programmes/ sensitization programmes conducted/ organized by the institution with focus on capacity building in terms of research and imbibing research culture among the staff and students.

Technical programs are being conducted in association with leading industrial organizations and the department wise activity. Many technical programs are being fully sponsored by our management to encourage interaction with outside world and the department wise activity.

Following programmes are conducted / organized by the institution during last 3 years:

SN	Name of the programmes	Date & Month	Sponsored by	Dept.
1	Two day national workshop on MSP-430	7th & 8th Feb 2014	Edge gate Tech &Texas instruments	ECE
2	Workshop On Technological Advances In Power Electronics And Power Systems	14th & 15th Feb. 2014	B I T M Bellary	EEE
3	2 Days National Workshop on "NNSC-Ethical Hacking"	21-22nd Feb, 2014	BITM Bellary	CSE
4	INDO-US ROBO LEAGUE- International Robotics Competition and Workshop Series.	12th and 13th March 2014	BITM Bellary	ME

5	One day Seminar on "Space Craft Mechanical and Thermal Control Systems"	8th March 2014	BITM Bellary	ME
6	Conducted one day workshop on "Domain Knowledge Augmentation in Mechanical Engineering" in association with EDS Technologies, Bangalore and confederation of Indian Industries (CII)	6th May 2014.	BITM Bellary	ME
7	Workshop on Engineering Attributes – FDP	16th to 18th July 2014	Wipro	All
8	PC Assembling and Networking	4&5th Jan-2013		MCA
9	Technical talk by Mr. Naveen J.C from BTPS, and Mr. Shadab Khan from JSW on "Fundamentals of Power plant Engineering and Erection and Commissioning of Power plants"	28th April 2013	BITM Bellary	ME
10	Mechanical Engineers Forum has organized Coins and Stamps Show of various Countries.	20th, 21st and 22nd August 2013.	BITM Bellary	ME
11	Investing with Confidence	24th Aug. 2013	BITM	MBA
12	"Driving Growth through E-Commerce & Retail Management"	21st Sept. 2013.	BITM	MBA
13	Microsoft .Net Technologies	26-Sep-2013		MCA
14	1 Day Seminar on "Data Storage Basics & learning Objectives-SAN"	01st Oct, 2013	BITM Bellary	CSE
15	2 Days Workshop on "National Network Security Championship-NNSC"	30-31st Oct, 2013	BITM Bellary	CSE
16	Windows 2003 administration services	8-nov-2013		MCA
17	National workshop - Advanced Teaching Techniques	2nd & 3rd July 2012	BITM, Bellary	Phy.
18	Microsoft .Net Technologies	26-Sep-2012		MCA
19	Java Server Technologies	7&8th Nov.2012		MCA
20	ROBOTRYST-2012, Zonal workshop on I-Robotics	22nd & 23rd Oct- 2011	BITM Bellary	ME
21	3-Day Faculty Development Programme on "Statistics for Industrial and Research Applications"	3rd to 5th Nov 2011	BITM Bellary	ME
22	National Conference COMET -2010	19th & 20th Feb 2010	BITM Bellary	ME
23	Work shop on Operation and Precaution for using Electronic Equipment.	3rd & 4th Aug 2010	College	ECE
24	Training on " Creative Brain Power Development" by Dr. R. Sethu Madhavan, Programme Director, Rural Entrepreneurship Management Project, Hindupur	14th August 2010	BITM Bellary	ME
25	A Seminar on "Success at college to success at work – A transition" by S.S.Bhaskar, Senior Program manager, Microsoft India, Hyderabad	27th Sep 2010	BITM Bellary	ME
26	A National Work shop on "Vibration and Condition Monitoring of Rotating Machines"	30th Sep an 1st Oct 2010	BITM Bellary	ME
27	National conference on Recent trends Electronics and Communication Engg	24th and 25th of Sept-2010	College	ECE

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

Computer Science & Engg.

SN	Name of the Faculty	Area of Research	Dept.
1	Dr. R N Kulkarni	Software Engineering / DBMS / OOMD	CSE
2	Dr. B M Vidyavathi	Data Mining	CSE
3	Dr. Rajashri Biradar	Sensor N/w	CSE
4	Dr. Y. Basavaraj	Quality and Maintenance Engineering	ME
5	Dr. V. V. Ramana	Concurrent Engineering and Management	ME
6	Prof. Raghavendra Joshhi	Design Engineering	ME
7	Prof. B. Ganesh	Condition Monitoring	ME
8	Prof. Jaya Prakash	Thermal Engineering	ME
9	Prof. B. Vishnu Prasad	Nano Technology	ME
10	Prof. Mabusabu	Heat Transfer	ME
11	Prof. T.H. Manjunatha	Tribology	ME
12	Prof. Banakar Nagaraj	Welding Technology	ME
13	Dr. U.Eranna	Control Systems	ECE
14	Dr. V.C. Patil	Ad-hoc wireless network	ECE
15	Dr. Sadyojatha K M	Power Electronics	ECE
16	Dr. Nagabhushan Katte	Instrumentation	ECE
17	Dr. C.N. Shariff	Information Security	ISE
18	Dr. K.S.R. Sridhar	Fluid Dynamics	Maths
19	Dr. N. Gururaj	Fluid Dynamics	Maths
20	Dr. D. Shaik Meera	Fluid Dynamics	Maths
21	Dr. M. Pralahad	Topology	Maths
22	Dr. T. Machappa	Solid State Physics & Material Science	Physics
23	Dr. Suresh	Chemistry	Chem.
24	Dr. Badrunnisa. S	Bio-Chemistry	Chem.

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

The institution is taking continuous efforts to attract the best minds of our country and abroad to visit the campus and interact with the student and faculty to create awareness on the various research opportunities in the emerging areas of science and technology.

Few among them are listed below:
a. Sc. Raghavendra Prasad H. M, and Sc. D. R. Veeresh were the scientists from ISRO, Bangalore delivered one day seminar on "Space craft Mechanical and Thermal Systems", on 8th march 2014.
b. A Seminar on "Success at college to success at work – A transition" by S.S.Bhaskar, Senior Program manager, Microsoft India, Hyderabad on 27th Sep 2010.
c. Training on "Creative Brain Power Development" by Dr. R. Sethumadhavan, Programme Director, Rural Entrepreneurship Management Project, Hindupur on 14th August 2010.
d. EEE - A lecture was arranged on Power factor correction converters in 1-phase Switching converters by Dr.M.Mahesh Professor, PESIT Bangalore, on April 25th 2013.

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

College spends some amount of funds towards giving the opportunity for our faculty members to pursue Ph.D., by offering the required sabbatical leave with supportive sponsorship. 5% of the faculty have availed sabbatical leave. The provision has contributed to improve the research culture in the campus largely.

> Mr. Raghavendra Joshi of ME Dept pursuing PhD at NITK Suratkal
> Mrs. R.Manjula of ECE pursuing PhD, at IIT, Karagpur

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

> The institution has taken up the following initiatives in creating awareness / advocating / transfer of relative findings of research of the institution and elsewhere.
> Conducting national and international level conferences.
> Encouraging the faculty and students to participate in the national and international conferences held in other institutions.
> Funding the research activities of the faculty and reimbursing the registration fee and TA/DA expenses incurred in attending such technical conferences.
> Incentives to faculty when they publish their findings in refereed journals.
> Encouraging the PG students to publish technical papers based on the findings of their final year project work.
> Providing access to national and international journals thereby encouraging the faculty to keep themselves updated with the recent developments in their respective areas of research.

The following list shows the number of publications of our faculty in ME department in the last few years.

1. List of publications by students in National/International Journals

SN	Name of the Student	Title of Paper	Publication / Citation	National/International Journal
1	Varun B V,	"Modeling And analysis of Clamp for Brake Spider Fixture by FEM using Ansys Software"	International Journal of Engineering Inventions, e-ISSN: 2278-7461, p-ISSN 2319-6491, Vol. 2, Issue10 (June 2013)	International Journal
2	Veeresh H			
3		"Design and Analysis of Under carriage up-lock lever Mechanism of an Aircraft"	International Journal of Science and Research (IJSR). ISSN (Online) 2319-7064, Vol.3, Issue 6 June (2014), PP. 1150-1153.	International Journal
4	Anchal .V. Khetan	"A Study of Biometric Approach using Fingerprint	IRAJ Research Form, 4th May 2014, Chennai	International Journal
5	Swarna Laxmi			
6	Veena			

7	Vijaya Lakshmi.G.	Recognition"		
8	Ranjith Kumar.R.S.	"Android Application of the college",	IJECES, May 2014, Bangalore.	International Journal
9	Praveen Kumar.T.			
10	Challa Ranjith Kumar			
11	Mahesh K			
12	Chaitra.C.	"Preventing Private information Attackson Social Network"	IJCRD, Vol2, Issue:4	International Journal
13	Deepa.P.			
14	Ullasini.B.			
15	Swetha.T.			
16	Nagarjuna.Y.	A Secure erasure Code based Cloud Storage Data Forwarding System"	IJCRD Vol.2, Issue: 3 March 2014.	International Journal
17	Shiva Kumar Reddy.K			
18	Siddharth Katariya A			
19	Adesh T.G.			
20	Anusha.B.	"Hierarchical Attribute Based Solution for flexible and Scalable Axis Control in Cloud Computing",	Vol.2 Issue 4, April 2014	International Journal
21	Gayathri.D.			
22	Madhuri N			
23	Sathya Anjusha P			
24	Abdul Haseeb	"Online Crime Report Management System"	ICCECES, May 2014, Bangalore.	International Journal
25	Sameer Shukur.M.			
26	Snehal R			
27	R.Virupakshi			
28	Dinesh Yadav	"Web Based Offlineable Health Vault System	ICCECES, May 2014, Bangalore	International Journal
29	Chandrashekar Reddy.E			
30	Essamuddin			
31	Satish.G.			
32	Nagaveni S	"Protecting Data Privacy and Security for Cloud Computing Based on Secret Sharing	IJCRD, April, Bangalore	International Journal
33	Nikhitha Chopra			
34	Nisha.M.			
35	Arpitha K	"MONA-Secure Multiowner Data Sharing of Dynamic Groups in Cloud Computing"	Vol2, Issue: 3, March 2014	National
36	Ashwini.T.			
37	Divya.J.			
38	Kalyani P			
39	Roopa Reddy.G.	"Adding Persuasive Features in graphical Password to increase of Knowledge based Authentication Mechanism",	Tech fest "DELTA 14.0", @ GMIT, Davangere, 28-29, March 2014.	National
40	Sneha.Y			
41	Sridevi Patil			
42	Swathi D Goled			
43	Ashwini Bharamappa Shiraguppi	"Abstraction of Grammar on parse tree in a given Input String"	IJCRD, April 2014.	International Journal
44	Mustour Shruthi			
45	Arpitha K			
46	Bhargavi.P.	"Dynamic Resource Allocation using Virtual Machines, Machines in Cloud Computing Environment"	IJCDR, Vol5, Issue 5 May 2014.	International Journal
47	Jyothi Devoor			
48	Pushpalatha S			
49	Uma			

50	Bhavana.S.H.	"Abstraction of UML Diagrams from Java Program"	IJCRD, May 2014.	International Journal
51	Kamagandi Nethravathi			
52	Shalini S			
53	Shilpa Jain M			
54	Jahanara sulthana	"XML Specific Web Application for Zinga"	ICCECES, May 2014, Bangalore.	International Journal
55	Aruna.V.			
56	Suman Sonar			
57	Challakudlur Mathada Shruti	"E-Transaction Interface"	ICCECES, May 2014, Bangalore.	International Journal
58	Jaji Nekkanti			
59	Supriya S			
60	Sowmya P			

2. List of students participated in Seminars/workshops/Symposium

SN	Name of the Student	Con/ Workshop / Symp	Date
1	J. Shiva Krishna	Technical Symposium TECHWIZ at DYNAMECHS -2010	
2	Piyush Rampuriya		
3	Tejaswi		
4	G.Sivaprasad	INSIGNIA 14, National Tecno - Cultural Fest	27th-29th March 2014
5	Prateek N Joshi		
6	Rajat S		
7	R.S.Sainatha		
8	Vijay Kumar Maskimath		
9	Vinay kumar Reddy		
10	Dheeraj Sakaray		
11	Karthik G U		
12	Kiran V N K		
13	Shiva kumar V B		
14	Satish Kulkarni		
15	Praveen Kumar.K	Pleiaded 2014	3,4 & 5 April 2014
16	Pranjal Mani		

3. Details of Guest lecture/ Expert Lectures organized in the Department

SN	Name of the Invited Scholar with full Address	Title of the Lecture delivered	Date of Lecture
1	Conducted one day workshop in association with EDS Technologies, Bangalore and confederation of Indian Industries (CII)	"Domain Knowledge Augmentation in Mechanical Engineering"	6th May 2014.
2	Technophilia Pvt Ltd	INDO-US ROBO LEAGUE-International Robotics Competition and Workshop Series.	12th and 13th March 2014
3	Sc. Raghavendra Prasad H. M, and Sc. D. R. Veeresh, scientists from ISRO	One day Seminar on "Space Craft Mechanical & Thermal Control Systems"	8th March 2014
4	by Mr. Naveen J.C from BTPS, and Mr. Shadab Khan from JSW on	Technical talk on "Fundamentals of Power plant Engineering and Erection and Commissioning of Power plants"	28th April 2013
5	S.S.Bhaskar, Senior Program manager, Microsoft India,Hyderabad	"Success at college to success at work – A transition"	27th Sep 2010
6	Dr. R. Sethumadhavan, Programme Director, Rural Entrepreneurship Management Project, Hindupur	Creative Brain Power Development	14th August 2010

4. RESEARCH INITIATIVES OF THE STUDENTS

SN	Name of the Student	Title of Paper	Project Title	Award	Date	Remarks
1	G.Sivaprasad, Prateek N Joshi, of 6th semester	Magnetic Bearings	---	second place at INSIGNIA 14, National Tecno - Cultural Fest	27th-29th March 2014	
2	Rajat S, of 6th semester	Over view of Advanced composite Materials	---	Third place at INSIGNIA 14, National Tecno - Cultural Fest	-Do-	
3	Vijay Kumar Maskimath	Nanotechnology-The Era	---	-Do-	-Do-	
4	Dheeraj and Vinay kumar Reddy	New trends in Automobile Design	--	-Do-	-Do-	
5	Ananth &Anil Kumar T	Space Elevator	---	Mech-I-Prix	April 26-27,2013	
4	Syed Waseem Ulla Khadri, Anil Kumar M, Khaja Mohinuddin of 7th semester	Hydrogen as a fuel for IC Engine	---	III prize in TECWAR at DYNAMECHS -2010	JNTUCE, Anantapur	

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.

Yes. - 1.5% of Total Budget is earmarked for Research

Research Fund:

SN	Year	Lab or Facility for Research	Financial Allocation	Total Fund Utilization	% of Actual Utilization
1	2014-15	Advance VLSI & Embedded System Lab (VGST)	10,00,000	8,73,659	87%
2	2013-14	R&D Lab for Computer Science Department	10,00,000	9,15,000	91.5%
3	2013-14	Subscription of online e-journals & Print Journals	13,00,000	12,90,578	99%
4	2013-14	Sponsorship for Journal Publications & Research Conferences	1,00,000	21,500	21.5%
5	2012-13	Advance VLSI & Embedded System Lab (VGST)	10,00,000	10,00,000	100%
6	2012-13	Subscription of online e-journals & Print Journals	17,00,000	17,05,627	100%
7	2012-13	Advance Communication Lab through MODROB	9,20,000	11,56,835	100%
8	2012-13	Sponsorship for Journal Publications & research conferences	1,00,000	52,615	52.6%
9	2011-12	Subscription of online e-journals & Print Journals	14,00,000	13,68,937	97.7%
10	2011-12	Sponsorship for Journal Publications & research conferences	1,00,000	92,354	92.3%

11	2010-11	Subscription of online e-journals & Print Journals	9,00,000	8,59,196	95.4%
12	2010-11	Sponsorship for Journal Publications & research conferences	1,00,000	67,032	67.0%

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

Yes. There is provision to provide seed money to the faculty for research. Alternately, a part of research expenditures are reimbursed by the management. The amount disbursed and the percentage of the faculty availed the facility in the last four years.

Year	Seed Money Amount	percentage of the faculty
2012-13	45,000	02
2011-12	-	-
2010-11	28,750	05
2009-10	52,125	03

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

The students are encouraged to carry out research projects and limited financial assistances are also provided from the Institute.

Research labs are established in the department where M.Tech program is also conducted. The labs are equipped with requisite facilities and systems for both UG and PG students to take up their project work in the college itself. Majority of the cases for every PG level project is advised to publish in Journal / Conferences.

The department sponsors both staff and the students when they register for students symposiums, conferences etc.,

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

Department / faculty interaction in undertaking inter-disciplinary research:
> The college has a Research Committee which comprises of subject experts from various departments.
> Various departments / faculty of the institute interact with the committee in undertaking inter-disciplinary research.
> Successful endeavors and challenges faced in organizing interdisciplinary research.
> Inter-disciplinary research is encouraged.

> The teachers in Mathematics department were carried out the research towards their Ph. D. degree in Fluid Dynamics. The area of research is a field of Mechanical that requires extensive uses of advanced mathematical techniques.
> Sharing of software from EEE and ECE departments like; MAT LAB, other analysis software's.

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

The Research Laboratory has the computer facilities power back up to help the faculties of the department to carry out their research activities. The department consists of major facilities that are required for advanced research in the respective fields. Electricity, water and other infrastructure facilities are provided by the department.

> Every faculty is trained by a library official on the recent methods of collection of literature by e-sources pertaining to their topics.
> Faculties are made aware of international rating of impact factor, h- index, for writing research articles.
> Faculty and students have free access to Institutional facilities to carry out research work.
> The department sponsors both student and staff for presenting papers at National and International seminars, registration fees, TA, DA, etc.,
> Institute also ensures that the deserving students should be facilitated to use the equipments, books, Journal, and lab facilities of the department beyond the college timing and also during winter/summer vacations.

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

YES, the details are as under;

SN	Name of the Equipment	DEPT.	Funding Source
1	Ni Boards and Software(Lab view)	ECE	VGST Govt. of Karnataka
2	Advanced Communication Equipments	ECE	MODROB (AICTE)

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

Nature of the Project	Duration Year From To	Title of the project	Name of the Funding agency	Total Grant		Total grant received till date
				Sanctioned	Received	
Minor projects (In Collaboration with Industry)	1st April 2010 to March 31st 2011	Campus Connect Projects from the Infosys Campus Connect Portal	Infosys Ltd.	Rs 58,500/-	Rs 58,500/-	Rs 58,500/-
Major projects	30th June 2014 to	Improvement of Industries throughput	Karnataka Council for	49.50 Lakhs	Nil	Nil

	30th June 2015	yield using smart factory system (with special information to flexible manufacturing system & construction monitoring)	Technological up gradation (A Joint Venture of Government of India & Govt. of Karnataka)			
Interdisciplinary projects	31st Dec 2012 to 31st July 2014	Establishing state of the art laboratory for PG & Research Programms in VLSI Design & Embedded Systems	Vision Group on Science & Technology	20.0 Lakhs	20.0 Lakhs	20.0 Lakhs
Industry sponsored	14th Feb 2014 to 31st Mar 2015	Establishment of Mission 10X Technology Learning Centre Lab using UTLP Kits	Wipro Technologies Ltd	6.0 Lakhs	6.0 Lakhs	6.0 Lakhs
Students' research projects	1st Jan 2014 to May 31st 2014	Design of Embedded Controller to Implement Auto Lock Facility in LPG Stoves	Karnataka State Council for Science & Technology (IISc Campus, Bangalore)	Rs 4,500/-	Rs 4,500/-	Rs 4,500/-
Any other MODROB	1st March 2013 to 7th July 2014	Up gradation of Analog & Digital Communication Lab with NI Lab View Academic Suite, Digital Communication Bundle & Hardware NI ELVIS II+	All India Council for Technical Education(MODROB)	11.50 Lakhs	11.50 Lakhs	11.50 Lakhs

3.3   Research Facilities

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

The department of CSE has created a separate R&D Lab / MTLC Lab for all the students and faculty who are involved in the research.

> Every faculty is trained by a library official on the recent methods of collection of literature by e-sources pertaining to their topics.
> Faculties are made aware of international rating of impact factor, h- index, for writing research articles.
> Faculty and students have free access to Institutional facilities to carry out research work.
> The college sponsors both student and staff for presenting papers at National and International seminars, registration fees, TA, DA, etc.,
> Institute also ensures that the deserving students should be facilitated to use the equipments, books, Journal, and lab facilities of the department beyond the college timing and also during winter/summer vacations.

The Mechanical Engineering research centre has been established to carry out the various research activities in the departments and also inter disciplinary research work.

> Research & Development Lab
> CAD / CAM lab
> IC engines laboratory
> Fluid Machines Laboratory
> Material testing Laboratory

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

Proposal is submitted to create BIG DATA INNVOTATION LAB from students and staff who want to carry out projects in the emerging areas.

> Latest equipments and other infrastructural facilities are procured on a regular basis from the research funds allotted annually.
> National and international journals are subscribed and new journals are subscribed based on the requests of the faculty.
> The institution is in the process of entering into MoUs with other organizations of repute for faculty exchange programmes for collaborative research activities.

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

Special grants received from outside agencies for research or its support is given below:

Company Name	Company Sector	Incorporation Status	Name of Infrastructure	Type of Infra-structure	Discipline	Level	Total Expenditure on Setting up of the Cell / Body (INR)	Amount contributed by Industry at the time of Setting up of the Cell (INR)	Infrastructure used by
Reliance Money	Financial Services & Marketing & HR	2012	Online Simulated Trading	Access to Online Trading Facility	MBA	MBA	5 Lakhs	1 Lakh	MBA
Wipro Technologies Ltd	Information Technology	2013	Technology Learning Centre	Equipments & Resource Guide	CSE/ ISE/ EEE/ ECE	Engg	20 Lakhs	5 Lakhs	Circuit Branches (CSE/ ISE/ EEE/ ECE)
Texas Instrument	VLSI & Embedded Systems	2013	Advanced VLSI & Embedded System Lab	Computers, VLSI Software & Equipments & Books	ECE	Engg	25 Lakhs	20 Lakhs	Electronics & Communication Engg
Industrial Development & Director of Industries & Commerce, Govt. of Karnataka	Manufacturing	2014	Flexible Manu-facturing System & Construction Monitoring	Smart Factory System	ME	Engg	100 Lakhs	49.5 Lakhs	Mechanical Engg

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

The institution has approved Research center by the Visvesvaraya Technological University (VTU) for ECE, CSE, ME, MBA, Mathematics, Physics and Chemistry Departments.
The institution has signed MOU with Wipro Technologies.

Access to
> Soil conservation of India Limited
> Industries of the district (JSW, Kalyan Steels, BTPS etc.)

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

The college has an information resource centers (Library and Internet Centre) to cater to the needs of researchers.
> Our central library is fully computerized by automating the issue of books with bar code reader.
> The library has 7,266 titles covering all major fields of Technology, Engineering & Management.
> The library covers an area of 1644.72 Sqm, spanning with reference room and an ample study space.
> The Library has the following facilities for the faculty, staff and the students: Multimedia, Internet, Reprography and a CD-ROM collection.
> A book bank for all the students is also being maintained.
> The college subscribes to most of the major technical journals including IEEE, IEE, ASCE, ACM, ASTM, J-GATE, MCGRAW HILL, etc.
> To encourage online learning, Multimedia Computers with internet connectivity provided for accessing CDs, e-books, e-journals etc.
> In addition to this central library, departments have its own library for the benefit of their faculty and students.
> A library committee headed by the Principal, comprising of all the Heads of Departments, and Student Representatives, meets every semester to discuss the functioning of the library.
> The total number of volumes, Print and Online journals, CD's are indicated in the following table.

SN	Particulars	Availability
1	No. of titles of the books	7,266
2	Number of Volumes of the books	75,492
3	No. of journals (National/ International)	116 National & International e-journals + Online journals as per AICTE norms.

Under Thomas Edition Program for Environmental and e-Learning Development (TPED) – Tidal Data Digital Library @ cost of Rs.17.84 Lakhs, which includes NPTL Digital library, video lectures, tutorials of various disciplines.

Computerized Library Database and Search facility are available on the Intranet.

SN	Department	Titles	Volumes
1	Mechanical Engg.	912	10963
2	Electrical and Electronics Engg.	396	6287
3	Computer Science Engg.	957	10846
4	Information Science Engg.	795	7013
5	Electronics and Comm. Engg.	969	13634
6	Biotechnology	635	3382
7	Engg. Physics	51	634
8	Engg. Chemistry	45	823
9	Engg. Mathematics	258	6456
10	Elements of Civil Engg. & Engg. Mech.	84	1817
11	Constitution of India and Engg. Ethics	6	877
13	Environmental Studies	8	395
14	General	467	1023
15	M.Tech (DE)	190	459
16	M.Tech (CNE)	305	903
17	M.Tech (VLSI)	83	218
18	M.Tech (MDE)	62	179
19	M. Tech (CSE)	53	197
20	MCA	289	2174
21	M.B.A	701	7212
	Engg +MCA+MBA	**7266**	**75492**

E-Resources Subscribed

SN	e-Resources	Price
1	IET Digital Library (Journals + Magazines + Conference Proceedings)	65,000
2	Springer e-Journals (ME,CV,EE,EC,CS & Allied Subjects)	2,24,000
3	Springer e-Books (Engineering + Computer Science)	
4	Taylor and Francis e-Journals	2,11,248
5	Taylor and Francis e-books	
6	ProQuest (VTU Technology Collection e-journals)	23,000
7	KNimbus (Federated Search engine+ Magazines+ Conference Proceedings)	15,740
8	ProQuest (VTU Management Collection)	23,000
09	IEEE (ASPP)	3,45,591
10	McGraw Hill : General Engineering and Reference	84,882
11	ASTM Digital Library	69,960
12	J-Gate Management	67,416
	Total Amount: Rs.	14, 00,677

Digital Library
> Situate in the Main Library.
> 12 X 6 Access to the Resources.
> All the systems on Wireless LAN (Wi - Fi) with Internet connectivity.
> e-Access to articles and Journals and various Library Databases through INDEST-AICTE and IEEE membership (IEEE, all online e-Journals)

> Students can access the Sessions recorded for few select lectures/presentations (Proposed).
> Setting up of CD Section and Storage Rack Server (Juke Box) will e taken up soon.
> On-line study material and Computer Based training modules are also available on the server.

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

Facilities are created in the institution for carrying out the collaborative research between WIPRO Ltd. Bangalore and BITM Bellary using MTLC – UTLP Kit.

SN	Facility	Lab
1	Exhaust gas analyzer	IC Engine Research
2	Color Image Capture System	Metallurgy Lab
3	Variable Compression Ratio Diesel Engine	Thermal Lab.
4	CNC Milling machine	CAD/ CAM Lab
5	AME Sim Software	
6	NX Cam Express Software	
7	Spot welding, TIG Welding	Workshop

3.4 Research Publications and Awards

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

> Patents obtained and filed (process and product)
> Dr. Badrunnisa.S, Asst. Prof. Dept. of Chemistry is the Principal Investigator, is engaged in a project - study on "microbial deterioration of coolent oil in steel industry and oxylicins as possible remedial agent" sponsored by VTU, Belgaum. Her work is also supported and guided by JSW Steels ltd., Bellary and she has applied for patency and obtained patent.
> Original research contributing to product improvement
> Research studies or surveys benefiting the community or improving the services
> Our E-learning studies at computer Science and Engineering department helped our institution for achieving improved e-learning facility
> Research inputs contributing to new initiatives and social development

Name of students	Project Title	Area of Specialization	Project Supervisor	Contribution /Achievements /research out put
2013-14				
Ajith Singh Purty Ujjwal Jain Vikas Deep Anil Kumar.S.	Control of Nitrogen pick up min continuous casting	Production	T. H. Manjunatha	

Raghavendrachari Badagi Shaik Mohammed Imran PaulChrisSumanth Mohamed Khalid	Synthesization of nano fluid and to find overall heat transfer coefficient of heat exchanger	Thermal	Banakar Nagaraj	
Madhusudhan.B. Singh Arun Shankar Pratap Singh Varun Shankar Pratap Swaroop	Effect of section and grade of billet on vertical mill stands on WRM by vibration analysis	Production	B. Ganesh	
Sri Rama Reddy.H. Dhananjaya.K.S. Sharath.K. Ashok.B.	Prototype of compressed air vehicle	Automobile	K. Raghavendra	
Arun kumar Reddy S Ajay kumar E Naveen.S. Raghavendra.P.	Comparison of overall heat transfer coefficient between nano fluids and base fluids	Thermal	B. Vishnu Prasad	
2012-13				
Naveen Kumar H M Hanumanthappa Singnal Rajshekar patil Mohamed Sadiq	Comparision and sensitive analysis of Heurisitic method for solving job sequencing problem	Production	K Mallikarjuna	New method which saved the time
Varun B V Sumanth G Venkatesh P Veerasatynarayana	Modeling and Analysis of Brake Spider Fixture Design	Design	Dr.Y.Basavaraj	Precession in manufacturing
Suresh Kumar S Vinay KN Vinay S Sowjanya K	Nano Fluids used as coolants	Thermal	Pavan Kumar BK	Increase the overall heat transfer coefficient than base fluids
Jagannatha P Santosh Hosmani Jameer Husain Sunil Kumar BK Bailur Maresha	Air power hammer	Design	K Raghavendra	Reduced man power
Kiran B Dinesh Suvarna Thippeswamy M Manjunath K S	Fabrication of Revolving tipper Trailer	Automobile	Dr V V Ramana	Can be used to dump material within a small area
2011-12				
Nakul Raj reddy Heena Kausar Pradeep kumar Chenna basava	Design of farm yard manure spreader	Production	Dr. Y. Basavaraj	Reduced labour cost and time
Anand reddy B Karthik Goud Lokanna Gouda Vivek KP	Tensile and flexible properties of cattas fibre reinforced polyster composite	Material science	I. Sridhar	
Balaji BR, Uma Mahesh, Viswanath Raghavendra k	Mechanical properties of sisal / coconut particular fibre reinforced hybrid composite	Material science	I. Sridhar	
Jayapreet Singh Amith Kumar Satyajith Sandip Kumar	Experimental analysis on slurry erosive wear behavior of inconel 718 coated on copper	Material science	B. Jaya Prakash	
Srikanth B JM Prithvi Raj Srinivas Pradeep GK	Developing mathematical model to predict dry sliding wear of mild steel coated with Al Tio$_2$	Material science	Banakar Nagaraj	

Name of students	Project Title	Area of Specialization	Project Supervisor	Contribution /Achievements /research out put
2010-11				
Rajesh.K J.Shiva Krishna D.Kishore Kumar Raju Amit G.R	Portable Pneumatic Jack	Design	V. Srinivasulu	
Khaja Mohinuddin.B Syed Waseemulla Khadri Tejaswi.M Avinash.V.M	Case study and performance evaluation by enhancing the capacity of heat exchanger in blast furnace	Thermal	Laxmi Kumari	
Anand Kumar Bhagath Amit Kumar Singh Nilesh Kataria Mahatab Alam	Trans laminar fracture toughness of jute / cotton reinforced polymer composite	Material Science	I. Sridhar	
Nagaraj .E Sudeep Wilson Dsouja Venkatesh Sullali Vinod Reddy	Electrolytic cleaning lime and yield improvement	Production	Prof Bhimsen Soragaon	
N.Prashanth Veeresha Wodiar Veerabhadra Gouda.S Ambresh.G	Optimizing the quality of coal fines ingredients using taguchi orthogonal array for making coal briquattes	Production	Dr.Y. Basavaraj	
2009-10				
Vikas V Mallikarjuna.G Hanumanthappa Md Ghouse	Reduction of Scale loss in Reheating Furnace	Thermal	V Srinivasulu	Increased the efficiency of reheating funace
Santosh.K.P R..N .Palakshi Shambulingappa R.Venugopal	Analysis of Equipment Failure in Line Plant	Production	Dr.Y.Basavaraj	Improved the Production in Line Plant
Nagarjun.R Shivshankar.K Vamshi.B.M Bramhaiah	Performance of Standard Clean Burn Engine with Gasoline Fuel	Automobile	V.Ravi	Increase the Performance of Engine
Ravind.G.Bhat Moulasab Praveen Raibhagi Kumarnath Reddy.Y.P	Design & Development of Soil Moisture Testing and Water dispensing Equipment	Design	Bhimsen Soragaon	Useful for Agriculturists and Most economic
Atul Kumar.M Mahesh.B Joshi Nataraj Md.Khayum	Production and Testing of Bio – Diesel on Diesel Engine	Automobile	B.Ganesh	Engine Performed well on Bio Diesel

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

- NO -

3.4.3 Give details of publications by the faculty and students:
    a.   Publication per faculty
    b.   Number of papers published by faculty and students in peer reviewed journals (national / international)

c. Number of publications listed in International Database (for Eg: Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.)
d. Monographs
e. Chapter in Books
f. Books Edited
g. Books with ISBN / ISS Numbers with details of publishers
h. Citation Index
i. SNIP
j. SJR
k. Impact factor
l. h-index

	CSE												
SN	Name of the Faculty	A	B	C	D	E	F	G	H	I	J	K	L
01	Dr. R N Kulkarni	38	07	07	--	01	--	--	01	--	--	0.1-0.821	--
02	Dr. B M Vidyavati	33	07	07	--	--	--	--	--	--	--	--	--
03	Dr. R V Biradar	33	08	08	--	--	--	--	3-37	--	--	0.24-2.55	--
04	Prithiviraj Y J	02	--	--	--	--	--	--	--	--	--	--	--
05	P. Phaniram Prasad	18	01	--	--	--	--	--	--	--	--	--	--
06	Aradhana D	21	07	07	--	--	--	--	--	--	--	--	--
07	T R M Rehman	04	02	--	--	--	--	--	--	--	--	--	--
08	Suresh T	06	03	--	--	--	--	--	--	--	--	--	--
09	A Venkateshwar	06	--	--	--	--	--	--	--	--	--	--	--
10	Anita Patil	04	01	--	--	--	--	--	--	--	--	--	--
11	Swati D V	--	01	--	--	--	--	--	--	--	--	--	--
12	C K Sreenivas	14	01	--	--	--	--	--	--	--	--	--	--
13	Pratibha Mishra	02	01	--	--	--	--	--	--	--	--	--	--
14	Jayshree N	02	--	--	--	--	--	--	--	--	--	--	--
15	Md. Shafiulla	--	01	--	--	--	--	--	--	--	--	--	--
16	Hayath T M	--	01	--	--	--	--	--	--	--	--	--	--
17	Sudhakar A	05	01	--	--	--	--	--	--	--	--	--	--
18	Jagadeesh R M	06	01	--	--	--	--	--	--	--	--	--	--
19	Gousia Parveen	02	01	--	--	--	--	--	--	--	--	--	--
20	Bhimanna A	--	01	--	--	--	--	--	--	--	--	--	--
	ME												
1	Dr.Yadavalli Basavaraj	25	15	-	-	-	-	-	-	-	-	0.4-2.00	-
2	Dr.V.Venkata Ramana	20	13	-	-	-	-	-	-	-	-	0.4-2.00	-
3	Prof.Raghavendra Joshi	16	16		-	-	-	-	-	-	-	-	-
4	Mr. B. Ganesh	2	-	-	-	-	-	-	-	-	-	-	-
5	Mr. B. Jaya Prakash	2	-	-	-	-	-	-	-	-	-	-	-
6	Mr. H. M. Anil Kumar	1	1	-	-	-	-	-	-	-	-	-	-
7	Mr. B. Vishnu Prasad	2	-	-	-	-	-	-	-	-	-	-	-
8	Mr. V. Srinivasulu	1	1	-	-	-	-	-	-	-	-	-	-
9	Mr. Mabusabu	1	1	-	-	-	-	-	-	-	-	-	-
10	Mr. Banakar Nagaraj	2	-	-	-	-	-	-	-	-	-	-	-
11	Mr. T. H. Manjunath	2	-	-	-	-	-	-	-	-	-	-	-
12	Mr. Pavan Kumar B. K	4	-	-	-	-	-	-	-	-	-	-	-
13	Mr. Shekhar	1	1	-	-	-	-	-	-	-	-	-	-

SN	Name of the Faculty	A	B	C	D	E	F	G	H	I	J	K	L
	ECE												
01	Dr. U Eranna	15	05	--	--	--	--	--	12	--	--	0.5-2.1	2
02	Dr. V C Patil	16	05		--	--	--	--	89	--	--	0.5-2.2	4
02	Dr. Sadyojatha K M	9	02	--	--	--	--	--	--	--	--	--	--
04	Dr. Nagbhusan Katte	32	12	--	--	--	--	--	--	--	--	.75-2.3	4
05	Prof. Rohitha U M	12	02	--	--	--	--	--	--	--	--	0.5-1.8	--
06	Premchand D.R.	06	01	--	--	--	--	--	--	--	--	--	--
07	Naseeruddin	12	04	--	--	--	--	--	--	--	--	.5-2.5	--
08	Shivakumar K.S.	04	--	--	--	--	--	--	--	--	--	--	--
	EEE												
01	Prof.B.S.Khened	05	03	--	--	--	--	--	--	--	--	1-3	--
02	Prof.Sharana Reddy	05	02	--	--	--	--	--	--	--	--	1-3	--
03	Prof.Arathi.P.B	03	--	--	--	--	--	--	--	--	--	--	--
04	Prof.Mohammad Anwar	04	--	--	--	--	--	--	--	--	--	--	--
05	Prof. Vijayakrishna.M	02	--	--	--	--	--	--	--	--	--	--	--
	Mathematics												
01	Dr.K.S.R.Sridhar	03	03	-	-	-	-	-	03	-	-	0.5-1.5	-
02	Dr.N.Gururaj	05	05	-	-	-	-	-	02	-	-	0.37-1.6	-
02	Dr.D.Shaik Meera	02	02	-	-	-	-	-	02	-	-	0.5-1.6	-
04	Dr.Pralahad	04	04	-	-	-	-	-	03	-	-	0.4-1.5	-
	Physics												
01	Dr. Machappa. T	11	11	11	-	-	-	-	22	-	-	0.331-6.911	3
02	Mr. Manjunatha. S	02	02	02	-	-	-	-	25	-	-	1.899-3.339	3
	Chemistry												
01	Dr. Suresh	18	18	-	-	-	-	-	03	-	-	0.346-1.50	
02	Dr. Badrunnisa	06	06	-	-	-	-	-	04	-	-	0.53-5.0	1
	MBA												
1	Dr.G.P.Dinesh	16	16	1	-	-	-	-	8	-	-	4	-
2	Prof. Javed Kalburgi	14	6	2	-	2	-	-	8	-	-	2	-
3	Prof. Shankara Gowda	1	-	-	-	1	-	-	-	-	-	-	-
4	Prof. Dinesh.K	11	2	-	-	-	-	-	-	-	-	-	-
5	Prof Anantha Nag M S	4	3	-	-	-	-	-	-	-	-	-	-
6	Prof. A.Mahesh	21	2	-	-	-	-	5	-	-	-	-	-
7	Prof. Sushma.G	2	-	-	-	-	-	-	-	-	-	-	-
8	Prof. Jagadeesh	2	-	-	-	-	-	-	-	-	-	-	-
9	Prof Jaysheelan	2	-	-	-	-	-	-	-	-	-	-	-
10	Prof Pavan P	2	-	-	-	-	-	-	-	-	-	-	-
	MCA												
01	Dr. B.Hari Prasad	08	04	-	-	-	-	-	-	-	-	0.5-2.5	-
02	Mr. Vedavyas J	07	05	-	-	-	-	-	-	-	-	1-3	-
03	Mr. Venkatesulu S	02	02	-	-	-	-	-	-	-	-	1-3	-

3.4.4 Provide details (if any) of

*   Research awards received by the faculty

SN	Name of the Faculty	Details of the award	State / National / International	Date
01	Dr. R N Kulkarni, Prof. & HOD, Dept. of CSE	Best paper presentation award in the National Conference held at MES College of Engineering, Kuttipuram, Kerala	National	30th Mar. 2006
02	Dr. B M Vidyavathi, Prof, Dept. of CSE	Bahu Bali Engineering College, Sravanabelgola	State Level	April 2006
03	Vedavyas J, Asst. Prof. Dept. of MCA	Best paper award at FAIST-13	National	
04	Dr. Suresh	JRF & SRF from CSIR, New Delhi	National	From 1985 to1991

> Recognition received by the faculty from reputed professional bodies and agencies, nationally and internationally
  * Dr Yadavalli Basavaraj has attended a Two day workshop on "Six Sigma Awareness" as a resource person to deliver a Technical talk on "Six Sigma Implementation Strategy" on 20th -21st June 2013 at Shri Dharmasthala Manjunatheshwara College of Engineering & Technology, Dharwad sponsored by TEQIP.

> Incentives given to faculty for receiving state, national and international recognitions for research contributions.
  Will be introduced

3.5   Consultancy

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

> Our College has an Industry Advisory Board with members from various industries such as IT, Retail, Manufacturing and Services industry.
> The meetings are held twice a year and the action items are strategized and used for overall college improvements.
> MoU's have been signed from IT Industries to carry out industry based courses. For this the concerned SPOC and the Training & Placement Department regularly interface with the Industry.
> Conferences & Workshops are regularly conducted in Collaboration with Industry for a Industry specific Problem.
> Students regularly visit various industries to get a bird's eye view of the functioning of the Industry.
> Faculty members are encouraged to carry out Internships/Research work in collaboration with Industry.

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

> The college encourages all the departments to carry our Consultancy during their non –academic times to generate extra revenue to the college.
> The College encourages the department to use the facilities during non-working days for generation of extra revenue to the college.

> Each department has indentified the concerned staff expertise in their research area to carry out the consultancy and this is shared with industry to enable them to indentify the concerned person for consultancy purpose.
> The Staff and the Industry have to take the final consent from the management before executing the work.

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

> The College has encouraged the staff to utilize the College Infrastructure and facilities for consultancy. The required staff members are given Lap Tops and necessary access to college resource for carrying out consultancy.
> The College shares the revenue with the concerned staff involved in the consultancy.
> The College rewards the staff for exceptional work wrt Consultancy based on the industry input.

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

Academic year	Area of Consultancy	Amount in Rs.
2011-2012	Maahiti Sindhu - Government of Karnataka (ICT Phase-II)	Rs. 2,11,000
2009-2010	Mahiti Sindhu Government of Karnataka (ICT Phase-II)	Rs. 1,41,000

Year	Revenue Generated(Rs)
2013-14	2,96,030/- +
2012-13	78,680/-
2011-12	2,86,020/-
2010-11	87,000/-
2009-10	1,68,065/-

> Competitive exam testing Services-TCS Ion by Computer Science Department
> Material Testing Services by Mechanical Department
> Evaluation of Computer Equipments at different Schools as Stipulated by the DSERT Bangalore, Govt. of Karnataka
> Facilitation of Written COMED-K Exams.

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

At an average of 30% of the total consultancy charge is paid to the Staff and rest 70% is utilized for the further development of the consultancy in the institution.

3.6   Extension Activities and Institutional Social Responsibility (ISR)

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

All students on admission shall enroll in any one of the extension activities like drive against pollution, social awareness, blood donation, flood victim relief operations and adapting schools in the nearby rural area from the department forum (MEF)

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

> Alumni meet is conducted by the institute every year
> Need-based extension activities are conducted through different associations/ committees of various departments.
> Blood donation camps are organized. AIDS awareness programs are conducted for locals. Considering the importance of computer knowledge in this era of computerization we provide easy and cheap access to computer education to our support staff.
> Personality development programs are conducted regularly.

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

The goals and objectives of the College are prominently displayed in the Information Bulletin given to the students at the time of admission. The College web site provides adequate space to these goals.

> They find place in all the offices of the college, library and other major buildings of the college. Immediately after admission the students are made aware of these goals and objectives by conducting orientation program.
> The institute has evolved stakeholders by forming different platform like Research Committee, Alumni, and departmental forums with a fair representation of Students.
> The institute conducts parent's meets at regular intervals.
> HR meets are also conducted to elicit views of the industry.
> The college Academic Committee in the planning process considers feedback collected from the entire stakeholder to prepare perspective on development.
> These developments prospective will be discussed in the respective committee.
> The reflection off the meeting will be incorporated in the plan.
> The management has developed evaluation tools for stakeholders to record their opinion, suggestions and objection for constructive developments for future.

> Institute is highly concerned with its stakeholder i.e. includes students, parents, staff, alumni.

Students: We value the opinions and needs of our students. One students of each Class is nominated as Representative. He/She communicates students" requirements and problems to the respective teacher/ head of department/ Principal. Students can also directly communicate with their mentors. Suggestion / Complaint box is placed at various places on the campus which are accessible to students. Students have the freedom to approach the HOD / Principal during working hours without prior appointment.

Parents: Teacher/ head of department/ Principal interact with guardians regularly. They are informed about their wards academic performance and attendance records through meetings, letters and phone calls. Direct interaction of the guardians with the H.O.D. is also encouraged. Opinion of parents is considered with respect to various aspects such as planning of industrial visits, cultural programmes etc. are valued. Parents of any student are allowed to meet the teachers, Coordinators and Principal on any day of the week at any time to make any suggestions or complaints.

Staff: We have regular staff meetings to keep the staff updated about changes and developments of the institute. Most of the decisions are taken only after consultation with the staff during staff meeting.

Alumni: We have constituted an alumni Association with a Professor In-Charge. The association organizes meetings and has regular formal and informal interactions wherein any alumnus is free to give their suggestions.

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

> Extension and Outreach Programmes are integral part of Our college. Our students are involved in Social Entrepreneurship Programs through Desh Deshpande Foundation for Social Entrepreneurship namely LEAD(Leaders Accelerating Development).It involves students to find solution to social problems in a cost-effective manner.
> Students have conducted Blood Donation Programmes, Cleanliness Prog at nearby Villages, have educated the ill-effects of Tobacco to the Villagers and are also involved in the distribution of books and clothing to the orphanage.
> The Impact: Students were able to Connect and understand the real life problems faced by the Villagers, Close to 200 Units of Blood was donated to the VIMS Govt. Hospital which was the highest ever units donated by any educational institution.
> The Seniors reach out to the Juniors and educate them the ill-effects of ragging it legal implications. They have also educated them wrt ill-effects of Crime against women.

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

> Our College has an active NSS Cell which is involved in Organizing Blood Donation Camps, Cleanliness Campaign. Every year the interested faculty and students enroll for the NSS work and organize as per the academic Convenience.
> NSS is involved in Independence day celebrations to motivate the Engineering students to participate actively.
> Our College has an MoU with Desh Deshpande Foundation for Social Entrepreneurship namely LEAD (Leaders Accelerating Development).It is provides help to students for generating ideas, develop initiative approach and creative thinking, plan activities and organize events.

NSS
The following activities are conducted under the NSS scheme in the Academic year 2013-14:

S N	Date	Name of the Activity	No. of Volunteers
1	23.02.2013	Blood Donation Camp	250
2	01.05.2013 25.11.2013	Camp on creating awareness campaign on Voting and Voting rights among the voters in community's	70
3	01.05.2013 02.05.2013	Awareness on effect of Tobacco consumption	40
4	05.09.2013 11.11.2013 24.09.2013	Creating awareness about cleanliness sanitation – International Literacy day	250
5	16.09.2013	Awareness programme on World Environment Day	850
6	01.12.2013	Awareness on HIV – AIDS disease	30
7	09.01.2014 to 15.01.2014	Integration Camp held at Visveswaraya Technological University Belgaum.	03
8	27.04.2013	One day Orientation programme at Visveswaraya Technological University Belgaum.	01
9	20.09.2013 to 26.09.2013	7 days special training programme at Allipur Village, Near BITM, Bellary.	100

LEAD (Leaders Accelerating Development) Program from Desh Deshpande Foundation) → This program encourages the youth to pursue social entrepreneurship as responsible citizen of the country within the limited resource. The activities of LEAD program includes:

> Awareness on RTI
> Importance of Filing IT Returns
> Blood Donation Camps
> Visit to orphanages
> Celebration of National Youth Day
> Importance of Youth Voting in the elections
> The department encourages the students and staff to participate in blood donation camps.
> The students of the department are involved in Clean and Green Program and other programs organized by the Government.

> The students actively take part in tree plantation programs in and outside the College.
> The students regularly take an active part in arranging contributions during calamities such as floods, earthquakes, cyclones, etc. in and out of the state.
> The student also participate in organizing programmes to bring awareness among the public in neighboring areas on matter like prevention of AIDS , spreading of deceases, removal of illiteracy and environment protection..

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

> Survey was conducted to evaluate the working of Computers and its utilization in Govt. Schools under the direction of DSERT Bangalore and and an report was submitted to the government.
> Socio-economic survey at nearby village namely Allipur wrt Gender, Education Health and availability of electricity through NSS was conducted and data was submitted to the Govt.

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

The result of all the activities undergone is inculcating the feeling of being socially awakened citizens in the students. The students who have been a part of this process have been spreading awareness in the institution and motivating other students as well to stand tall for the cause of social upliftment.

This is in line with the vision and mission of the department and college as a whole.

Extension activities complement students' academic learning experience and inculcated the values and skills. NSS programme gives value in:

> Leadership qualities
> Health and hygiene
> National Integration
> Adventure
> Social service
> Ecology and environmental protection.
> Training in fire fighting and providing flood relief

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

> The institution is roping in communities to actively participate in all the extension activities. This has contributed to both community- institution networking and development of institutions.
> The local villagers are initially consulted and the youth of the villagers are made to involve in all the Social activities.
> Extensive local participations are witnessed during tree plantation, blood donation etc. the alumni association is also involved in all these extension activities.
> The institution has taken the initiative to make aware the society about social and health problems like female feticide, dowry system, environment protection, consumer protection awareness, HIV awareness, anti tobacco and cleanliness awareness etc.
> Time to time survey is conducted to check the feedback and improvement in society. Seminars, individual discussion and group discussion are made to solve these problems.

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

> Our College has an MoU with Desh Deshpande Foundation for Social Entrepreneurship namely LEAD(Leaders Accelerating Development).It is provides help to students for generating ideas, develop initiative approach and creative thinking, plan activities and organize events.
> Working Closely with VIMS Govt. Hospital Bellary wrt Blood Donations Camps and Supply of Blood in Case of Emergencies. The List is shared with the VIMS Hospital.

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.

> College was awarded by VIMS Bellary for the highest number of units of Blood Donated by any Educational Institution.

3.7 Collaboration

3.7.1 How does the institution collaborate and interact with research laboratories, institutes and industry for research activities. Cite examples and benefits accrued of the initiatives–collaborative research, staff exchange, sharing facilities and equipment, research scholarships etc.

Our College has made it mandatory to involve industry in every aspect from curriculum innovation, for Conferences and Seminar and any other college related activities. Each department are entrusted on working and sustaining the partnership with Industry along with the placement cell. The Alumni has played a great role in advising our college to set up the collaboration. Once Collaboration is set a Single Point of Contact (SPOC) is appointed to co-ordinate and interface with the industry. SPOC along with Placement team ensures to attend all the meetings organized by the company where we have an MoU.

The Best Example would be Collaboration with Infosys Ltd from 2005.Since 2005 systematically we have engaged with Infosys Ltd wrt Faculty development, Industrial Visits, Staff Internship, Student Internship, Technical and Soft Skill Training to our students through Campus Connect Program and recruitment where Infosys have recruited our students since 2007.Because of this Constant Endeavour our college is recognized as an "Advanced Partner Institute".

Another Example is: Wipro Technologies Ltd has set up Mission 10x Technology Learning Centre (MTLC) Lab. It is Joint Investment made by Wipro and BITM Bellary to the tune of 20 Lakhs to set up MTLC Lab. The Students and Staff are working on the project using Uniform Technology Learning Platform (UTLP) kits and the projects are mentored by the Company expertise. The Projects will be certified by Wipro. The Benefits are: Reduction of the technology gap between industry and academia by adopting innovative Teaching/Learning platforms, Curriculum developed based on industry relevant technologies, Students will be able to implement industry relevant projects at the institute (Internship at the institute).The Company has committed to recruit the students whose projects get certified. Wipro has recognized our college as "DEEPER ENGAGEMENT COLLEGE". TWO FACULTY MEMBERS ARE CERTIFIED BY CAMBRIDGE UNIVERSITY, UK, IN INNOVATIVE TEACHING METHODOLOGIES UNDER THE GUIDANCE OF WIPRO MISSION 10X.

SN	Institution / organization	Area of collaboration
1	JSW, Toranagallu	Manufacturing
2	BMS College of Engg, B'lore	Tribology
3	BTL College of Engg, B'lore	Heat Transfer

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

> An MoU with Infosys Ltd for Campus Connect Program (An Industry Ready Courses) for IT and Non-IT Students conducted for the final year students from 2005.The Students also go through the soft Skills program as designed by the Infosys. Students and Staff also are given opportunity to visit Infosys Ltd for an Industrial Trip. Our staffs are also trained at Infosys Ltd to carry out the Campus Connect Program. Infosys Ltd has recognized our college as "Advanced Partner Institute".This program has enabled to have Infosys Ltd visits our college for Campus Interview and also to develop industry ready graduates.

> An MoU with Wipro Technologies Ltd where Wipro has set up Mission 10x Technology Learning Centre(MTLC) Lab. It is Joint Investment made by Wipro and BITM Bellary. The Benefits are: Reduction of the technology gap between industry and academia by adopting innovative Teaching/Learning platforms, Curriculum developed based on industry relevant technologies, Students will be able to implement industry relevant projects at the institute (Internship at the institute). This experience makes students and Staff Guiding the Students industry ready and Encourage

entrepreneurship in students to develop next generation products. The Expertise from Wipro also Visit to constantly help faculty work together as a team and make better use of time and resources. Wipro has recognized our college as "DEEPER ENGAGEMENT COLLEGE"

> An MoU with Reliance Money Infrastructure ltd where our students are take through a LEAP-Learning and Employability Advancement Program. The benefits and service rendered are Guest Lecture from Reliance Money, Sessions to students before they face interview, Campus Interview to our Students and Internship.

> An MoU with Texas Instruments called TEXAS INSTRUMENTS UNIVERSITY PROGRAMME. The TI LAB has SPONSORED PROJECT TO EXPLORE LATEST TECHNOLOGY USING TEXAS INSTRUMENTS EMBEDDED SYSTEMS Equipments and Software. The Staff and Students are constantly working on the Projects and also the lab is used to enhance the embedded system skills.

> An MoU with Deshpande Foundation's called Deshpande Center for Social Entrepreneurship called LEAD (LEaders Accelerating Development).It provides intensive trainings to the students to improve their communication skills, presentation, IT, innovation and initiation skills, building their own network. It also helps the students to solve a particular problem in innovative and cost effective way.

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

> Infosys Ltd for Campus Connect Program (An Industry Ready Courses) for IT and Non-IT Students conducted for the final year students from 2005.The Students also go through the soft Skills program as designed by the Infosys. Students and Staff also are given opportunity to visit Infosys Ltd for an Industrial Trip. Our staffs are also trained at Infosys Ltd to carry out the Campus Connect Program. Infosys Ltd has recognized our college as "Advanced Partner Institute". This program has enabled to have Infosys Ltd visit our college for Campus Interview and also to develop industry ready graduates.

> Wipro Technologies Ltd has set up Mission 10x Technology Learning Centre (MTLC) Lab. It is Joint Investment made by Wipro and BITM Bellary to the tune of 20 Lakhs to set up MTLC Lab. The Students and Staff are working on the project using Uniform Technology Learning Platform (UTLP) kits and the projects are mentored by the Company expertise. The Projects will be certified by Wipro. The Benefits are: Reduction of the technology gap between industry and academia by adopting innovative Teaching/Learning platforms, Curriculum developed based on industry relevant technologies, Students will be able to implement industry relevant projects at the institute (Internship at the institute). This experience makes students and Staff Guiding the Students industry ready and Encourage entrepreneurship in students to develop next generation products. The Expertise from Wipro also Visit to constantly

help faculty work together as a team and make better use of time and resources. Wipro has recognized our college as "DEEPER ENGAGEMENT COLLEGE"

> Reliance Money Infrastructure ltd (ADAG Group) where our students are taken through a LEAP (Learning and Employability Advancement Program) Program. The Students experience real life situation projects and work on real time trading accepts. The benefits and service rendered are Guest Lecture from Reliance Money, Sessions to students before they face interview, Campus Interview to our Students and Internship. Our Students are recruited by the Company and students have done their internship at RMIL.

> TEXAS INSTRUMENTS UNIVERSITY (TI University) PROGRAMME. The TI LAB has SPONSORED PROJECT TO EXPLORE LATEST TECHNOLOGY USING TEXAS INSTRUMENTS EMBEDDED SYSTEMS Equipments and Software. The Staff and Students are constantly working on the Projects and also the lab is used to enhance the embedded system skills.

> Deshpande Foundation's Deshpande Center for Social Entrepreneurship called LEAD(LEaders Accelerating Development).It provides intensive trainings to the students to improve their communication skills, presentation, IT, innovation and initiation skills, building their own network. It also helps the students to solve a particular problem in innovative and cost effective way.

> Dr. Badrunnisa.S, Asst. Prof. Dept. of Chemistry is the Principal Investigator, is engaged in a Project - Study on "Microbial Deterioration of Coolent Oil in Steel Industry and Oxylicins as Possible Remedial Agent" Sponsored by VTU, Belgaum. Her work is also supported and guided by JSW Steels Ltd., Bellary and she applied for Patency and obtained it.

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

> Sc. Raghavendra Prasad H. M, and Sc. D. R. Veeresh were the scientists from ISRO, Bangalore delivered one day seminar on "Space craft Mechanical and Thermal Systems", on 8th march 2014.

> A Seminar on "Success at college to success at work – A transition" by S.S.Bhaskar, Senior Program manager, Microsoft India, Hyderabad on 27th Sep 2010.

> Training on "Creative Brain Power Development" by Dr. R. Sethumadhavan, Programme Director, Rural Entrepreneurship Management Project, Hindupur on 14th August 2010.

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

a)   Curriculum development/enrichment-   02
b)   Internship/ On-the-job training-   02
c)   Summer placement-   02
d)   Faculty exchange and professional development-   04
e)   Research-   02
f)   Consultancy-   01
g)   Extension-   01
h)   Publication-   02
i)   Student Placement-   03
j)   Twinning programmes-   Nil
k)   Introduction of new courses-   02
l)   Student exchange-   02
m)   Any other(Faculty Research)-   02

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

> The Placement Team co-ordinates with the Department and identify the area that needs attention and identify the strength of the department. The Placement team takes the Input from Alumni also and meets the requisite company HR Manager, co-ordinate to establish the link. The college invites the industry to visit our college in the form of Seminar's, Conference and other technical fests so that the company appreciates our area of expertise and infrastructure.

> After having build the trust and confidence the college proposes for a MoU to establish the linkage. On Success an SPOC (Single Point of Contact) is identified to co-ordinate between the college and the Industry. The Initiative is formalized through Courses, Workshops, and Projects and Certifications to sustain and implement the initiatives.

> The Department of Mechanical Engineering is about to establish Research and Development cell sanctioned by Karnataka Council for Technological Up-gradation, Bangalore, Govt. of Karnataka. The Institute has received the sanctioned letter on 23rd May 2014 and yet to receive the grants in due course of time.

Any other relevant information regarding Research, Consultancy and Extension which the college would like to include.

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CRITERION IV

INFRASTRUCTURE AND LEARNING RESOURCES

4.1   Physical Facilities

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

The institution follows the policy of creating and enhancing the infrastructure that facilitates effective teaching and learning in proportion to the student strength in different streams. The policy also conforms to the strength of the staff appointed for the institution.

> The institution interacts frequently with parents, teachers, Alumni and students for creation and enhancement of its infrastructure.
> Necessary budget is allocated for creation enhancement and up-gradation of infrastructure.

The Policy of the management is :
Providing adequate space for effective teaching and learning process like;
> Reading room has been expanded for accommodating more students.
> The computer lab has also been expanded.
> Infrastructure has been created for separate departments like;
  * Separate department for each UG and PG Courses.
  * Spacious seminar halls with audio and video facility.
  * Wide area for seating in the auditorium.
> Conference / Board Room facility

To obtain and utilize funds (in terms of money) from various funding agencies like,
> University, Govt., AICTE etc.
> The funds obtained from AICTE have been well utilized for expansion of research infrastructure, use of ICT and other developmental activities.

4.1.2   Detail the facilities available for

a) Curricular and co-curricular activities - classrooms, technology enabled learning spaces, seminar halls, tutorial spaces, laboratories, botanical garden, Animal house, specialized facilities and equipment for teaching, learning and research etc.

All the departments are fully equipped with the necessary infrastructure to meet the ever increasing requirements with adequate class rooms, seminar halls, tutorial halls, laboratories and sufficient space for hosting all academic activities, as shown below.

The details of the facilities available are indicated in the profile provided by each department.

The college has an Administrative Block, Examination Section, Central Library, Department libraries,

>   Spacious and well ventilated and furnished class rooms.
>   Computer Centers for each department
>   Digital Library
>   Seminar Hall exclusively for each department
>   Conference Halls
>   Auditorium
>   Ladies lounge
>   Staff rooms
>   Well equipped laboratories.
>   Workshops
>   Spacious drawing hall
>   Separate Hostels for boys and girls within the campus.

To cater to the needs of the faculty and students a fleet of 15 buses, a canteen and Cafeteria, a post office (Nearby College), ATM, a stationery shop with reprographic facilities, a health centre / clinic with a full time Nurse are provided within the campus also full-fledged bank is available.

The Institution has a built up area with Five blocks, (i.e., PG and Admin Block, Millennium Block, Dr. Rajgopal Block, Electrical and Mechanical Block, Sir C.V. Raman Block), on its sprawling green campus.

INFRASTRUCTURE FACILITIES FOR ACADEMIC ACTIVITIES:

		No of rooms	Carpet area in Sq Mtrs per Room	Carpet area in Sq Mtrs per Room
A	Class rooms (UG)	48	66	76.54
B	Tutorial rooms	12	33	40.00
C	Class rooms (PG)	10	33	40.00
D	Laboratory	55	66	76.54
E	Research Laboratory	01	66	76.54
F	Workshop	01	200	250.92
G	Computer centre	01	150	224.80
H	Drawing Hall	01	132	156.58
I	Library	01	400	1644.72
J	Seminar Halls	08	132	148.76
I	Auditorium	01	01	999.00
	Total No. of class Rooms – UG +MBA+MCA		57	58
	Total No. of class Rooms– PG		10	10
	Total number of Labs - UG		50	50
	Total number of Labs - PG		05	06

Administrative Area – Infrastructure Facilities

		No. of rooms	Carpet area per Room	Carpet area per Room
A	Principal/Director Office	01	30	37.84
B	Board Room	01	20	140.76
C	Office all inclusive	05	300	662.33
D	Department Offices	10	20	
E	Cabins of Heads of Dept.	10	10	1802.00
F	Faculty rooms	20	5	
G	Central stores	01	30	35
H	Maintenance	01	10	25
G	Security	01	10	46.56
H	House Keeping	01	10	30
I	Pantry for Staff	01	10	30
J	Examination Control Office	01	30	79.29
K	Placement Office	01	30	102.24

Amenities Area

A	Toilet Ladies	12	350	
B	Toilet Gents	12	350	
C	Boys common room	01	100	935
D	Girls common room	04	100	
E	Cafeteria	01	150	150.02
F	Stationery Stores	01	10	20
G	First Aid cum Sick room	01	10	20
H	Principal's Quarter	01	150	
I	Guest House	01	30	50
J	Sports room / Gymnasium	01	200	250
K	Auditorium / Amphi Theatre	02	400	1200
L	Boys Hostel	02	Adequate	500
M	Girls Hostel	01	Adequate	450

Circulation Area (carpet area) in Sq Mtrs

A	Walk ways, staircases, Entrance lobby etc.		7546.96

Central library with more than 1644 Sq m is available with the following facilities:

A	No. of Titles for UG	50/course	5,583
B	No. of volumes for UG	250/course-division	64,150
C	No. of titles for PG	50	1,683
D	No. of volumes for PG	200	11,342
E	National Journals	6 x No. of Div.	106
F	International Journals	Desirable	10 + Online e-journals
G	Reading room seating Nos.		500

H	Reading room seating % of total UG students	15%	300
I	Reading room seating % of total PG students	25%	200
J	Multimedia PCs for Digital Library / Internet surfing		Available
H	Reprographic (copier) facility in library	essential	Available
I	Document scanning facility in library	essential	Available
J	Document printing facility in library	essential	Available
K	Books classification as per standard classification	essential	YES
L	NPTEL facility in library	essential	

Mandatory Subscription of E-Journals:			
i	IEEE (CS, E&E,TC)		YES
ii	Springer (CS, E&E, Mech.)		YES
iii	Wiley Blackwell(CS, E&E,TC, Mech., Civil)		--
iv	ASME (Mech.) Taylor and Francis		YES
v	ASCE (Civil)		--
vi	McGraw Hill (Gen Engg ref)		YES
vii	J-GATE		YES
viii	ELSEVIER		--
ix	ASTM Digital Library online version		YES
x	Gale Cengage Learning		--
xi	RMIT		--
xii	Emerald		--
xiii	EBSCO		--
xiv	ProQuest		YES

> Each department has adequate number of class rooms equipped with facilities including LCD projector, audio system, Computer, UPS and other accessories.
> Each department has well furnished seminar halls.
> All the departments have established departmental Library with relevant books and Journals.
> Well equipped central library with access to more than 1000 e-journals.
> There are two hostels separate for girls and boys with a built up area of more than 6000 SQM.
> Vehicle Parking: Ample space –Two wheeler and four wheeler parking
> Canteen: Canteen facility is available for students and staff.
> Telephone: Telephone facility is available for students in the hostel and the college.
> Internet Centre: Internet facility in the central computer common for students and staff

> Wi-Fi enabled campus: The entire campus is wi-fi enabled (including hostels) with 10 Mbps internet leased line.
> Transport: BITM provides more than adequate transport facilities from various parts of the city using its own fleet of buses numbering about 12. In addition the college is well connected with the city buses.
> Common Room for students: Separate common rooms are available for female students.
> Drinking Water: Water coolers are located at strategic points on all the floors.
> All weather approach roads connecting all the blocks.
> DTP and repo graphic facilities are available within the campus.

Infrastructure Facilities for Co-curricular activities
> Co-Curricular activities under the aegis of departmental professional societies are held in various seminar halls provided in each department. Transportation facilities are provided for students to participate in inter college cultural festivals.
> Extra –curricular activities – sports, outdoor and indoor games, gymnasium, auditorium, NSS, NCC, cultural activities, Public speaking, communication skills development, yoga, health and hygiene etc.

Extra –curricular activities and sports
> Separate sports area available for indoor and outdoor games.
> Coaching offered for Indoor games like chess, caroms, table tennis etc.,
> Outdoor games like cricket, throw ball, volley ball, are the most prominent.
> A fully equipped Gymnasium is available in the college / hostel to help students maintain their fitness.
> Qualified and efficient physical director.
> Expert coaching in specialized games and sports.

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

To keep pace with growing demands of higher education, the college has significantly enhanced the infrastructure.
> Plan and optimal utilization of the available infrastructure by budgetary and executing.
> All our activities have been brought under the ISO quality system. By assessing the requirements and availability periodically through reviews, the infrastructure is optimally utilized.
> Optimum utilization of the infrastructure is ensured. The academic session is so framed that our classrooms are occupied from morning till evening.
> Regular campus activities ensure that our auditorium and seminar halls are utilized around the year.

> Common facilities like computer laboratory, library, I year laboratories, Seminar halls etc. are utilized by all departments.
> Library has long working hours (9 AM to 9 PM) with internet facilities on all days including Saturday and Sunday.
> Server is maintained 24 hours with technicians working in shifts.
> The water coolers / UPS / Lift is under Annual Maintenance Contract.
> Regular check-ups are carried out.

The Master plan of the college campus is illustrated below;
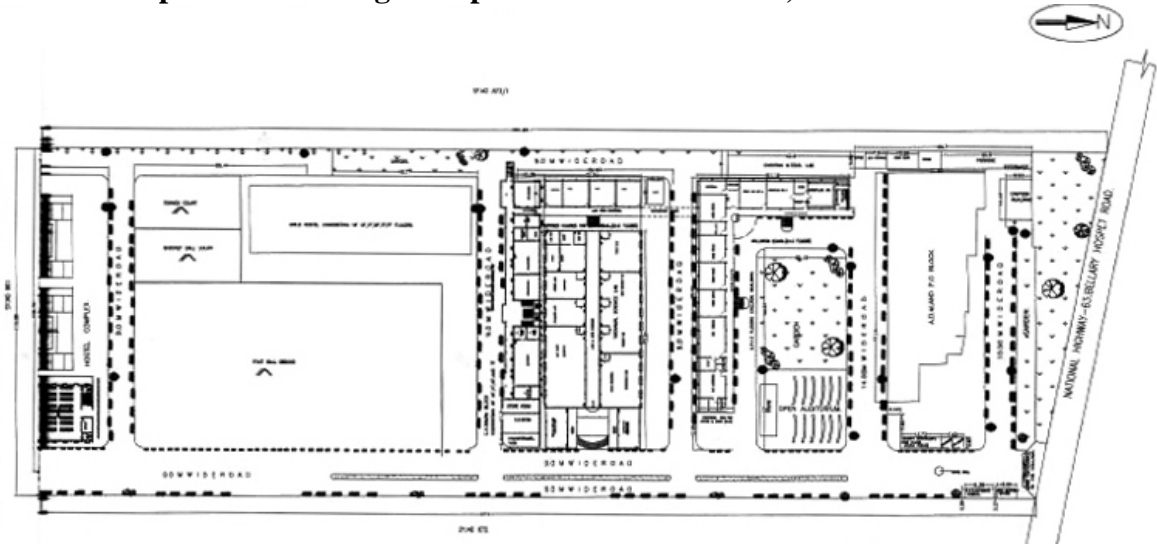
S N	Particulars	Year Of Construction	Amount Spent
1	C.V. Raman Block – GF + 3 Floors	2007	90,07,503
2	D.G. Room	2007	2,148
3	Amenity Centre, New Toilet Block – GF + 3 Floors	2008	3,79,230
4	Tunga Block Gents Hostel - 2nd Floor	2008	31,32,102
5	Dr. Rajgopal Mechanical Block - 1st Floor - CAD and CAM Lab	2009	48,403
6	Bhadra Block - Dining Hall and G+2 Floors	2009	12,08,921
7	Ladies Hostel Block - G+4 Floors	2010	1,58,39,591
8	Admin and PG Block – G-3	2013	7,11,08,184

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

The needs of physical challenged students are fulfilled by the supporting staff. The following institutional facilities ensure adequate comfort to the specially-abled:
> Ramp facility wherever required
> Very efficiently operated lift facility with extra care and concern for the differently-abled.
> Western type wash rooms on all the floors.
> They are also provided support in laboratory and workshops.

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

> Hostel Facility – Accommodation available
> * The college has separate hostels for boys and girls.
> * Gents hostel has two blocks: Tunga and Bhadra consisting of 150 rooms with occupancy of 4 students in each room.
> * Ladies hostel has one block i.e., Kaveri Block consisting of G+4 Floors with 150 rooms with occupancy of 4 students in each room.
> * The hostels have separate Co-ordinators, Wardens, Kitchen and dining halls. Other facilities like; reception, reading room, indoor games, living room, Television with cable connection facility, etc.,
> * Computer facility including access to internet in hostel
> * Central computer facility with more than 100 computers is available with high speed internet connection in the campus which caters to most of the browsing requirement of the students.
> * Wi-Fi facility is provided for the students to work in their laptops both in campus and hostels. Computer facility including access to internet in hostel.

> Facilities for medical emergencies
> * The college has 24x7 health center with a qualified staff nurse and pharmacy within the campus.
> * An ambulance facility is also available for owned by college transport during medical emergencies to nearby VIMS / other Hospitals.
> * The institute has a first aid kit to meet emergencies at strategic locations of every Department.

> Library facility in the hostels
> * As the hostels are situate within the campus, the college library working for 9 am to 9 pm. The students utilize the same during the evening hours.

> Internet and Wi-Fi facility
> * A dedicated 10 Mbps is BSNL leased line is installed through optical fibre networking.
> * Also Wi- Fi is enabled across the campus.

> Recreational facility-common room with audio-visual Equipments
> * Common room with cable TV and magazines / Newspaper in the hostels.
> * A well equipped gymnasium is available in the college/ Hostel.
> * Sports and Games (Indoor and Outdoor) facilities like; Cricket, Volley ball, Basket ball, Ball badminton, Tennis, Football, Hockey, In house Gym, Table tennis, Carom, Chess.

> Available residential facility for the staff and occupancy Constant supply of safe drinking water.
> * The Principal and Wardens quarters are constructed in the campus.
> * The well furnished Guest house consisting of 3 rooms are available within the campus.

* Drinking water coolers with filters (RO) are installed in every block of the college. Periodic testing of potable drinking water is performed in house as well as through competent agencies.
* Security
* The college Security Outsourced and campus is provided with security 24×7 under the surveillance of efficient security personnel and CCTV cameras are provided to ensure safety of students and staff.

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

Fully functional health center with all the required facilities i.e., First-Aid facility are available including separate Ambulance, qualified staff nurse and doctors on emergency call are made available in on campus for the benefit of students and faculty members. The first aid box kept at strategic location like; Dept. HODs room, Laboratories, Workshops and wherever necessary. All the students have to produce the physical fitness certificate at the time of joining.

Off Campus: Tie up with local hospital and VIMS for emergency.

4.1.7 Give details of the Common Facilities available on the campus – spaces for special units like IQAC, Grievance Redressal unit, Women's Cell, Counseling and Career Guidance, Placement Unit, Health Centre, Canteen, recreational spaces for staff and students, safe drinking water facility, auditorium, etc.

> Grievance redressal unit and an anti-ragging squad under the guidance of Principal have been formed to address the student's grievances and a separate space is provided for the same.
> A Board room equipped with LCD projector is provided for IQAC meetings.
> The college has a cafeteria functioning from morning till evening providing hygienic food and beverages.
> Placement and training department provides career guidance in conducting soft-skills and technical skills training programmes.
> Indoor sports room has been provided to encourage physical activities for both students and faculty.
> Auditorium has been provided with an accommodation of 500 seats to conduct extracurricular activities and conferences.
> The college has 24x7 health center with a qualified staff nurse, pharmacy within the campus. An ambulance facility is also available for transport during medical emergencies to nearby hospital.

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?

Yes,
> The Library Advisory Committee consists of the Principal, Library Co-ordinator, Chief Librarian, a few faculty members and student

representatives as its members. It is advisory in nature with regard to general updating, maintenance, purchase of books, journals, periodicals, etc.

> The Heads of the Departments recommend for the annual purchase of subject books.
> The Library receives requisitions from Departments for new books.
> Faculty members also suggest other acquisitions and all these are discussed in meetings of the Library Advisory Committee, which recommends acquisition list of newly procured books are displayed for the users.
> Separate reading room facility for girls and spacious reading room.

4.2.2 Provide details of the following:

> Total area of the library (in Sq. Mts.):   1644.72 Sqm.
> Total seating capacity: 500 students.
> Working hours (on working days, on holidays, before examination days, during examination days, during vacation):
  Library: 9 am to 6 pm on all working days.
  Reference Section: 9 am to 9 pm on all working days.
  Sunday and General Holiday is a Holiday.
> Layout of the library (individual reading carrels, lounge area for browsing and relaxed reading, IT zone for accessing e-resources)

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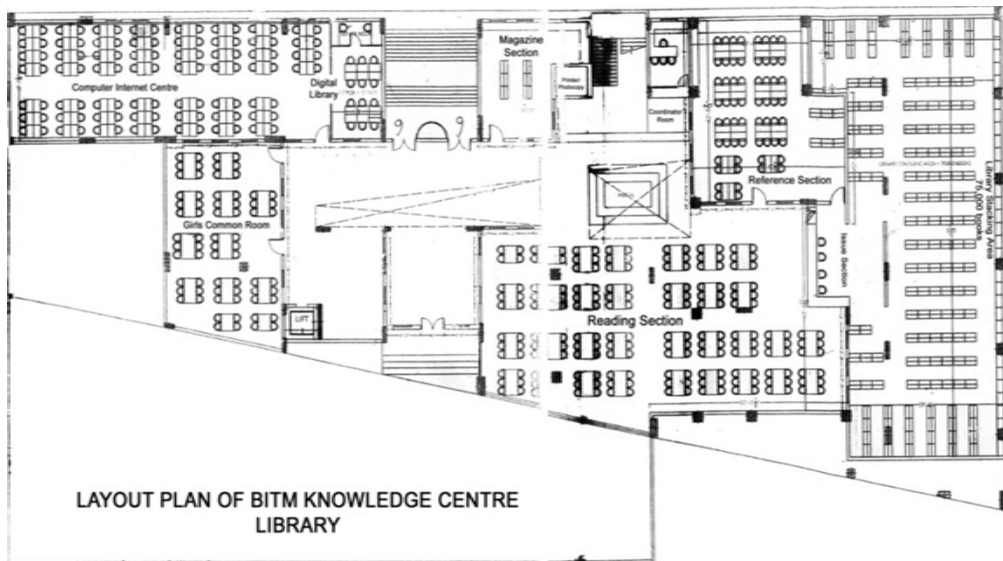
4.2.3 How does the library ensure purchase and use of current titles, print and e-journals and other reading materials? Specify the amount spent on procuring new books, journals and e-resources during the last four years.

The Principal of the College circulates a notice and requisitions for books are invited from all the head of departments. Every department of the College is asked to submit the lists of books, magazines and journals to be purchased with reference to new syllabus and current needs of the students.

The total amount spent for procuring books during the last four years is as hereunder;

Library Holdings	Year -1		Year – 2		Year – 3		Year – 4	
	Number	Total Cost	Number	Total Cost	Number	Total Cost	Number	Total Cost
Text books	3091	527771	3017	821484	4908	1461085	5465	1785845
Reference Books	105		047		189		059	
Journals/ Periodicals	108	263174 (Jan-Dec)	73	234445 (Jan-Dec)	116	314414 (Jan-Dec)	16	27161* (Jan-Dec2014) Subscribed in June
e-resources	01	386750 (Jan-Dec)	09	1134492 (Jan-Dec)	09	1390193 (Jan-Dec)	10	1400677* (Jan-Dec 2014) Sub in March-April
Any other (specify)	Tidal Data Digital Library (NPTEL Video library) Cheque:546566 Dated19.01.2010	555516						
	Easylib Advanced Multi User software including Independent software Windows server 2003 Bill No.ESPL/I/2008-09/2008	117000						

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

> OPAC (Online Public Access Catalogue): **Yes**
> Electronic Resource Management package for e-journals: **Available**
> Federated searching tools to search articles in multiple databases: **NIMBUS and J-Gate**
> Library Website: **http://172.16.3.200/epac/EPAC_home.asp**
> In-house/remote access to e-publications: **Yes -available, IP address based.**
> Library automation:

The library is fully computerized using easylib 4.4.2 Software and covering most function of library.
> Total number of computers for public access.
  10 computers can be access by the users from morning 8 A.M to 8 P.M
  And also the students can access from library website in the campus.
> Total numbers of printers for public access: 02 Nos.
> Internet band width/ speed 2mbps 10 mbps 1 gb (GB)
  * Internet band width/ speed- 10 mbps
> Institutional Repository: Available
> Content management system for e-learning: Available
> Participation in Resource sharing networks/consortia (like Inflibnet): VTU Consortium membership

4.2.5 Provide details on the following items:

> Average number of walk-ins: **250-300 per day.**
> Average number of books issued/returned: **300 per day.**
> Ratio of library books to students enrolled: **7:1**
> Average number of books added during last three years: **13,401 Nos.**
> Average number of login to OPAC:
> Average number of login to e-resources: **Usage reports provided by publishers**
> Average number of e-resources downloaded/printed: **Available (usage reports)**
> Number of information literacy trainings organized: **07**
> Details of "weeding out" of books and other materials: **Damaged and Missing books are weeded out with approval from Principal and Management**

4.2.6 Give details of the specialized services provided by the library
> **Manuscripts:** No
> **Reference:** Reference books are arranged in separate racks and can be easily located by user.
> **Reprography:** Reprography facility is available in the library for the benefit of the faculty and students. However photocopying of books is not permitted as an ethical practice.
> ILL (Inter Library Loan Service): **Yes**
> **Information deployment and notification:** Yes, through library notice boards, like; New Books arrival, books issue/ return notifications, OPAC, University notifications.
> **Download:** Available through internet and intranet facility in the Library
> **Printing:** We have printers attached with the Photocopy Machine.
> **Reading list / Bibliography compilation:**
  OPAC by login http://172.16.3.200/EPAC/EPAC_selorg.asp each member
> In-house/remote access to e-resources: **Yes, Available**
> User Orientation and awareness: **Yes, Available**
> Assistance in searching Databases: **Yes**
> INFLIBNET/IUC facilities: **Yes (VTU consortium)**

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

The library staff always extends the support to the students and the teachers in identifying the proper documents and services related to the field of users in terms of books, journals, journals-papers, back volumes, reprographic materials, searching databases of books and journals, etc.
> Support for e-journal access.
> Support in location of title.
> Support for copying.
> Advance booking of titles.
> Additional book provided on request.

> New Students are introduced to the library and informed about the services available in the different sections of the library and this information is also displayed on notice board. Library provides open access system.
> Interacting with groups of students to use the Library's online resources.
> Facilities of a photo copying machine and printer are provided for the students and Staff on request.

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

Library staff offers the necessary assistance to select, borrow and return the library books for physically challenged persons. The Wheel Chair, Ramp facility and lift facilities are also available.

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

Regular feedback is being taken through feedback forms which are positioned in the Library. Register is kept in the library to get feedback and in and out of the users and staff and discussed in Library Committee Meeting and appropriate decisions are taken to satisfy the needs of users.

4.3   IT Infrastructure

4.3.1.   Give details on the computing facility available (hardware and software) at the institution.
> Number of computers with Configuration (provide actual number with exact configuration of each available system)

No. of Computers: **1056 Nos.**

SN	Model	RAM	Mother Board/ Processor	H.D.D	CD/DVD	Monitor	Total
1	Intel Core 2 Duo, G 41 Chipset, 2.93 Ghz, 2 GB RAM, 500 GB Hard Disk, 18.5" LCD Monitor						90
2	P-4 2.66 Ghz, - do -						90
3	845 Chipset, 512 MB RAM, 80 Gb Hard Disk 15" LCD Monitor						90
4	Intel Core i-5 2.8 Ghz, 4 GB RAM, 320 Hard Disk, 18.5" LCD Monitor						60
5	Intel Pentium Dual Core -3.00 Ghz, Intel 945 Mother Board, 512 MB RAM, 80 Gb Hard Disk, 15" LCD Monitor						58
6	Intel H61 Core-i5 3330, 3 Ghz (3 rd Generation), 4 GB RAM, 320 Hard Disk, 18.5" LCD Monitor						157
7	Intel Core i-3, 3.00 ghz, 4 GB RAM, 320 GB Hard Disk, 18.5" LCD Monitor						90
8	P-4 3.00 Ghz, 915 Chipset, 512 MB RAM, 80 Gb Hard Disk, 15" CRT Monitor						120
9	Intel Pentium Dual Core -3.00 Ghz, ASUS P5GC Mother Board, 512 MB RAM, 80 Gb Hard Disk, 15" CRT Monitor						120
10	AMD Atholan 4400+, NVIDIA Chipset Mother Board, 2.3 Ghz, 1 GB RAM, 160 GB Hard Disk, 15" CRT Monitor						120
11	Intel Pentium Dual Core, E-2200 Ghz, 2.2 Ghz, ASUS P5GC Mother Board, 512 MB RAM, 160 Gb Hard Disk, 15" LCD Monitor						61

> Computer-student ratio
> **1:2 (for PG students)**
> **1:4 (for UG students)**

> Stand alone facility
> HP Servers: 3
> Xeon processor 2.13Ghz 8GB RAM 500 GB HDD 19" LCD DVD Writer Multimedia keyboard Optical Mouse
>   *   Dell PE 1900: 1
>   *   Intel Xeon Processor 4 GB RAM 500 GB HDD
> LAN facility: Available to all systems
> Wifi facility: Available
> Licensed software: Required Licensed Software are available in the departments.
> Number of nodes/ computers with Internet facility: 750 Nos.
> Any other

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

1. The institute has separate computer centre with internet browsing facility looked after by System Administrator.
2. The students of the institute can access internet.
3. The Faculty and staff of the institute can also access internet in computer center.
4. The campus Wi-Fi enabled for the easy use of internet by the students and faculty.
5. Each department has their own computing facility for their faculty and students.
6. Laptops are provided to Principal, Dean and all departmental heads.
7. LAN facilities available.
8. Resources for conducting online examinations exist in the institute.
9. Students and Staff can also browse e-Journals using password provided.

4.3.3 What are the institutional plans and strategies for deploying and upgrading the IT infrastructure and associated facilities?

The institute is optimistic as far as the infrastructural up-gradation is concerned. The college intends to upgrade the PCs with latest configuration available. The Institute intends to replace the non functional parts with new parts. Non-working computer hardware components are used as models to demonstrate in the practical classes.

The institute has the following plans:
> Smart boards
> Biometric Student Attendance (Gents and Ladies Hostels)
> Smart Card for Library and Canteen access
> Hi-tech Auditorium / seminar halls for cultural and extra-curricular activities

> To deploy e-governance throughout the institution through expansion of
> Information Management System.
> All class rooms to be made state of the art smart and hi-tech class rooms.
> To develop e-learning facilities utilizing the resources of the faculty.
> To develop multimedia based educational modules for the various courses.
> To procure and install industry specific software and to train students on these platforms to enable them industry ready product.
> Provide more advanced software for Research and Development.
> Real time attendance system.

4.3.4 Provide details on the provision made in the annual budget for procurement, upgradation, deployment and maintenance of the computers and their accessories in the institution (Year wise for last four years)

Computer up gradation is a regular process and 30% of the computers are replaced every year. Thus all the computers are replaced by the end of 3 years. For the last 5 years an amount of Rs.32 Lakhs was spent towards upgrading and maintenance of the computer systems.

The college has a separate service unit with qualified engineer and technicians to maintain 100% uptime of all computers in the campus. In addition to it the suppliers are required to maintain the computers under AMC.

Academic Year	Maintenance	Upgradation
2013-14	2,33,682	25,76,500
2012-13	2,41,372	15,82,606
2011-12	1,16,550	12,63,853
2010-11	1,72,676	Nil
2009-10	1,38,695	15,02,400

4.3.5 How does the institution facilitate extensive use of ICT resources including development and use of computer-aided teaching/ learning materials by its staff and students?

Computers are available for specific use in some departments.
> The teachers liberally take help of the ICT resources to enrich their prescribed curriculum with the help of internet.
> The college has adequate computer facility for its faculty.
> Faculty members are provided with computers with internet browsing facility for preparation of teaching/learning materials in their respective departments.
> Multimedia projectors and OHPs are available in the college for use by the faculty.
> The college also has seminar halls equipped with projectors and are to teacher.
> Teachers also make use of the browsing facility in the library.
> All labs are provided with facilities so as to help teaching while students are doing their practical work.

4.3.6 Elaborate giving suitable examples on how the learning activities and technologies deployed (access to on-line teaching - learning resources, independent learning, ICT enabled classrooms/learning spaces etc.) by the institution place the student at the centre of teaching-learning process and render the role of a facilitator for the teacher.

The institution has always been placing the students at the Centre of the teaching learning process. The vision and the mission of the institution have always been to provide holistic knowledge to its students. Keeping the students' learning at the centre of everything, the college understands that the teachers have to be reoriented from time to time.

> every department has one or two smart class rooms
> each room can accommodate 60+ students
> equipped with latest hardware and software tools
> connected to internet and intranet
> access to learning resources
> access to independent learning
> ICT enabled class room
> Peer learning groups are encouraged
> e-materials are uploaded in the intranet
> Mini projects are given to students to make them understand the concepts of theory in an effective manner.

4.3.7 Does the Institution avail of the National Knowledge Network connectivity directly or through the affiliating university? If so, what are the services availed of?

No - The college is now in the process of availing the connectivity through National Knowledge network connectivity.

4.4 Maintenance of Campus Facilities

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

> The Director holds a 'Pre-budget' allocation meeting with the management/ Governing Council.
> Once the needs are identified for annual maintenance the estimation is sought for 'Budget allocation'.
> Based on need assessment for effective/proper maintenance of equipments, furniture, laboratories, classrooms, staff-rooms etc., budget provisions are optimally allocated on the basis of priority.
> The budget allocated for the purchase of equipments and repairs, furniture or any other needs is monitored by the respective HODs.
> Regular meetings are held with the purchase in-charge to ensure proper utilization of funds.
> If there is any deficit due to overspending on a particular head, it is adjusted by diverting funds which had been remained unutilized before.
> AMC is awarded for UPS maintenance.

The following table shows the budget allocation for maintenance of various infrastructures for the year 2009-10 to 2013-14. Amount Spent (Rs. in Lakhs)

		2009-10	2010-11	2011-12	2012-13	2013-14	Total
a.	Building	9.28	12.72	11.93	22.21	35.93	92.07
b.	Furniture	10.69	7.54	36.87	35.67	53.21	143.98
c.	Equipment	4.24	7.53	6.87	8.02	13.43	40.09
d.	Computers	15.02	0	12.63	15.82	25.76	69.23
e.	Vehicles	6.55	7.13	6.43	8.19	12.45	40.75
f.	Any other (Library)	11.26	3.61	5.87	14.61	19.66	55.01

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

Each department is asked to give an annual budget estimate to upgrade and to maintain the existing facilities available in the laboratories and workshop and also to buy new equipments, The budget is monitored periodically by Board of Trustees and HODs in the review meetings conducted weekly. Funds are allotted so as to ensure optimum utilization.

4.4.3 How and with what frequency does the institute take up calibration and other precision measures for the equipment/ instruments?

> Inspections of the instruments/ equipments are carried out on a regular basis.
> The laboratory equipments are serviced and maintained by the equipment suppliers/ lab instructors.
> There are also on call servicemen who attend to the various requirements.
> Electrical and Mechanical equipments are taken up for calibration and precision measurement as and when required which will be decided by the respective departments.

4.4.4 What are the major steps taken for location, upkeep and maintenance of sensitive equipment (voltage fluctuations, constant supply of water etc.)?

Sensitive equipments are maintained with the proper safety provisions in all the laboratories and offices by the respective in-charges.

> The power is distributed with proper earthing to all the labs, class rooms, offices etc from Main Control Board via Sub control Board which is having advanced circuit breakers to ensure safe and secure power supply.
> The college electrical supervisor and the supporting staff are taking care of electrical equipments and their maintenance.
> The water source is provided by submersible pumps ensuring the constant supply of water to college, cafeteria and hostel campus.
> Sensitive equipments are handled under air conditioner system.

Any other relevant information regarding Infrastructure and Learning Resources which the college would like to include.

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CRITERION V:

STUDENT SUPPORT AND PROGRESSION

5.1   Student Mentoring and Support

5.1.1   Does the institution publish its updated prospectus/handbook annually? If 'yes', what is the information provided to students through these documents and how does the institution ensure its commitment and accountability?

YES.

The institution publishes its updated prospectus annually. The prospectus contains
> The Vision and Mission statements
> The Profile of the Trust
> The achievements of the institution
> The Profile of the institution
> Affiliating Body - VTU
> The Profile of the Departments
> Admission and Examination Procedure
> Attendance, Rules and Regulations
> Scholarships
> Library
> Sports and Games
> Hostel Facilities
> Training and Placement
> Other facilities available in the institution

In addition to the prospectus, the college Newsletter called 'Bhoomika' is published quarterly and given to every student and faculty, which provides information about the important events that happened during the semester. The institution website is also updated regularly to provide the latest information to the stake holders.

5.1.2   Specify the type, number and amount of institutional scholarships / freeships given to the students during the last four years and whether the financial aid was available and disbursed on time?

Facilitates to get the scholarship for different categories are as under:

	Particulars	Income Limit	Sanction Authority
1	SCHEDULE CASTE (SC)	Income Below Rs.2.50 Lakhs (For All B.E. Courses and PG Courses Under CET) (For Mgt May Be May Not Be)	Taluk Social Welfare Officer, Bellary
2	SCHEDULE TRIBE (ST)	Income Below Rs.2.50 Lakhs (For All B.E. Courses and PG Courses Under CET) (For Management Quota May Be / May Not Be)	Taluk Social Welfare Officer, Bellary

3	SCHEDULE CASTE (SC)	Income Above Rs.2.50 Lakhs (For All B.E. Courses Under CET Only)	Director of Technical Education.
4	SCHEDULE TRIBE (ST)	Income Above Rs.2.50 Lakhs (For All B.E. Courses Under CET Only)	Director of Technical Education.
5	FOR CATEGORY-I	Income Upto Rs.2.00 Lakhs (For All B.E. Courses and PG Courses Under CET) (For Management May Be / May Not BE) (Food and Accommodation, Post-Metric Scholarship, Fee Concession Scholarship)	Application through On Line Website: http://karepass.cgg.gov.in/
6	For O.B.C (I.E.2A, 3B, & 3B)	Income Limit Rs.44500. (For All B.E. Courses & PG Courses Under CET) (For Mgt May Be / May Not Be) (Food & Accommodation, Post-Metric Scholarship, Fee Concession Scholarship)	Application through On Line Website. http://karepass.cgg.gov.in/
7	For Category 2B (For Minority)	The Karnataka Minorities Development Corporation Ltd Visveswaraya Centre, 12th Floor, Main Tower, Dr. B.R. Ambedkar Veedi, Bangalore. Annual Income Limit Rs.2.50 Lakhs	Application Through On Line 1) WEB site.www.momascholarship.gov.in Click Button Merit-Cum-Means Of Scholarship 2) Web Site. www.kmdc.kar.nic.in Arivu Loan

SCHOLARSHIP DETAILS FOR THE LAST 04 YEARS:

SN	Particulars	Cat-I		OBC. (I.E.,2A, 2B, 3A & 3B)		Schedule Caste		Schedule Tribe	
		No Of Students	Amount	No Of Students	Amount	No Of Students	Amount	No Of Students	Amount
1	2010-11	36	886000	261	6425000	89	1974640	34	2137000
2	2011-12	33	528000	232	3712000	86	3275440	41	1580360
3	2012-13	0	0	384	6805330	122	5119722	64	2765960
4	2013-14	0	0	1013	10911420	147	6512730	76	3437250
	Grand Total	69	1414000	1890	27853750	444	16882532	215	9920570

No. of students awarded scholarships by the Institute/ Trust:

Description	CFY (2013-14)	CFY (2012-13)	CFY (2011-12)	CFY (2010-11)
Total numbers	09	13	14	12
Total Amount Rs.	90,000	1,30,000	1,40,000	1,30,000

5.1.3 What percentage of students received financial assistance from state government, central government and other national agencies?

Nearly about 35% of students received financial assistance from the state/central government and other national agencies – Post-metric SC/ST scholarship, Backward Community and Minorities Scholarship, as mentioned in 5.1.2, referred above.

5.1.4 What are the specific support services/facilities available for;

> Students from SC/ST, OBC and economically weaker sections.
> The institute arranges for the students from the economically weaker sections to get the government scholarships.
> Students with physical disabilities
> There is no case of physical disabilities. Anyhow, the College has provided lifts, wheel chair, ramp facilities for easy movement of physically challenged and differentlyabled students. Separate provisions are made for them to write the exams.
> Overseas students: The college does not have overseas students.
> Students to participate in various competitions/National and International College provides financial support to students to participate in various competitions like; Seminars, workshops, conferences, Sports, quiz, debate, and cultural events nationally.
> Medical assistance to students: health centre, health insurance etc.
> Fully functional health center with all the required facilities is available for the benefit of students and faculty members. The center is manned by a qualified staff nurse. First aid box is available in all the departments.
> Group Insurance scheme is available to all the students studying in the campus.
> Organizing coaching classes for competitive exams
> The institution encourages the students to prepare for various competitive examinations through awareness programs, special coaching and training. The placement and training cell concentrate to achieve the above goals by giving additional informative classes, inviting experts.
> The college also offers various courses in communication skills in English and Proficiency test on the lines of appearing for various competitive examinations.
> Skill development (spoken English, computer literacy, etc.,) - Yes-
> There is a separate well equipped English lab with modern interactive and learning facility available for the students
> Central computer lab facility with more than 100 computers with high speed internet connection available beyond the working hours for enhancing computer literacy among the students
> Periodic skill development workshops are conducted to enhance IT skills
> Support for "slow learners" - The institution believes that slow learners can go steadily. So, personal cares are taken by individual faculty members for the students. Students are allowed to ask their problems without any hesitation. Remedial classes, extra-hour classes, frequent tests are arranged on regular basis
> Exposures of students to other institution of higher learning/ corporate/business house etc.

The students are encouraged to do their final year project in the industries. Around 50% of the project groups are doing their project in the industries. The students are also exposed to the current trends in the industry by arranging guest lecture from the reputed institution and industries. The students are also encouraged to take up the in plant training in the industry to get the hands on experience about the current technology in the industries. The

institute arranges for industrial visits to the students to get first hand information about the industries and their technologies.

> College organizes industrial visits and field trips to expose the students to corporate and business house.
> Students are encouraged to participate in conferences, workshop and technical fest to improve their knowledge by interacting with students and teachers of other institutions
> MOU with Infosys, Wipro, Texas, INST, Reliance and other industries
> College organizes regular guest lecture by inviting eminent persons from corporate, industries and premier research institutes to improve the knowledge of students on recent technologies.
> Publication of student magazines: The college Newsletter called 'Bhoomika' published quarterly and given to every student and faculty also provides information about activities and achievements of faculties and students of each department during that semester.
> The Dept. of MBA also publishes the news letter known as "MYMITR", wherein all the events of the department are published.

5.1.5 Describe the efforts made by the institution to facilitate entrepreneurial skills, among the students and the impact of the efforts.

> In order to facilitate entrepreneurial skills among the student, college has established EDP cell.
> EDP cell organizes various activities to increase entrepreneurial skills of the students.
> VTU has established an EDC and has encouraged all affiliating institutions to have vibrant chapter of the same.
> A senior faculty with good industrial experience is identified as coordinator of the cell.
> Regular seminars and workshops by technocrats who themselves are entrepreneur are organized to motivate students community to become a successful entrepreneur.

5.1.6 Enumerate the policies and strategies of the institution which promote participation of students in extracurricular and co-curricular activities such as sports, games, Quiz competitions, debate and discussions, cultural activities etc.

There are several committees in the Institution to promote and motivate the students to get actively involved in the extracurricular and co-curricular activities, like sports, games, Quiz competitions, debate and discussions, cultural activities etc.

Different policies and strategies on different extracurricular and co-curricular activities are usually framed by the respective and relevant committee in consultation with the HODs and Head of the Institute.

Additional academic support, flexibility in examinations

> Extra classes are conducted to full fill the gap in which the students could not attend the classes because of participation in sports.
> Special Tests have been arranged for some students who could not attend the scheduled tests for attending or participating in external events.
> special dietary requirements, sports uniform and materials, Sports joursy are also provided from the Institute for the participating students.
> Sport materials and accessories are provided throughout the year like football, basket balls, cricket bats, cricket balls etc.
> Any other
> * Inter college cricket tournament and football league are organized by the University every year, where students from the Institute as well as from other Institutes do participate.
> * Many quiz, debate competitions and coding competitions are organized in the Institute, where the students actively participate.
> * The Annual Fest organized by BITM is a symbol of glorious culture of this college.
> * Also the students from this institution participate in the fest, showing their surprising talents in various fields.

5.1.7 Enumerating on the support and guidance provided to the students in preparing for the competitive exams, give details on the number of students appeared and qualified in various competitive exams such as UGC-CSIR- NET, UGC-NET, SLET, ATE / CAT / GRE / TOFEL /GMAT / Central /State services, Defense, Civil Services, etc.

The college is gearing up to tackle the competitiveness by providing oral guidance and yet to reach the milestones.

The institution encourages the students to prepare for various competitive examinations through awareness programs, special coaching and training. The placement and training cell concentrate to achieve the above goals by giving additional informative classes.

Moreover to train the students those who are interested in higher studies in abroad by the way of arranging classes by inviting experts.

Competitive Exam	Qualified No. of students
UGC-CSIR (NET) / SLET	--
GATE	63
Indian civil service	01
GRE	25
CAT	29
GMAT	25
TOEFL	29
IELTS	35
Banking service	02
PGCET	123

5.1.8 What type of counseling services are made available to the students (academic, personal, career, psycho-social etc.)

Academic Counseling is given to the students of various semesters of the department based on their performance in the test, irregularities in attending the classes, previous semester results.

> College has constituted Grievance Redressal Cell and students have been informed of such a facility.
> Counseling is provided as and when clients seek such help from the mentors/ HODs.
> Career guidance cum placement cell has been constituted in order to provide placement for students.
> Women Welfare Committee actively provides personal and psycho-social support and mentors the girl students.
> For each one mentor is allotted as in charge of providing counseling for academic, personal, career and psycho-social etc., where the mentor advises and counsel the students to avail the latest academic benefits, solve any type of personal problem and enlighten them about their career.

5.1.9 Does the institution have a structured mechanism for career guidance and placement of its students? If 'yes', detail on the services provided to help students identify job opportunities and prepare themselves for interview and the percentage of students selected during campus interviews by different employers (list the employers and the programmes).

Yes,

> The department is headed by Chief Placement Officer, who is assisted by Placement / Asst. Placement officer.
> Training and Placement cell plays a very active role in getting our students placed in various leading multinational and Indian companies.
> The placement committee meets regularly, takes decisions, interacts with various companies and organizes campus interviews.
> Organizing of soft skills /aptitude training program on periodic basis which is rendered by industry experts.
> Providing add-on skills training to argument technical skills of students and make them job ready.
> Liaison with HR team of prospective employers, sharing of eligible students' data base and also facilitations of on campus interviews for students.
> Organizing written or aptitude for prospective employers, arrangement of power point presentation, etc.
> Hosting of industrial level seminars to final year students.
> Liaison with placement department other technical institution and organizing pool campus hiring events
> Follow-up with employers about the performance of alumni in their establishment.
> Active participation in organization of alumni meet and maintenance of alumni data base.

Placement- on campus and off Campus

5.1.10 Does the institution have a student grievance redressal cell? If yes, list (if any) the grievances reported and redressed during the last four years.

Yes - The college has a "Grievance Redressal Cell" to redress the grievances of the stakeholders and students. The committee sorts out their problems promptly and judiciously.

> The committee also redresses the grievances of the stakeholder whenever required.
> The committee is meant to hear grievances of individual staff members and find solution for the same. Serious issues are discussed in the staff meeting and the rest are sorted out in an informal manner.
> Students' feedback about teachers and teaching is collected regularly and forms the basis for quality improvement.
> And a special care is focused for girl students so, more members in the cell consists of senior lady faculties.

"GRIEVANCE REDRESSAL CELL"

1. Dr. V.C.Patil,	Prof. & HOD, Dept. of ECE	Chairman
2. Dr. Yadavalli Basavaraj	Prof. & HOD, Dept. of ME	Convener
3. Prof. Aradhana. D	Asso. Prof. Dept. of CSE	Member
4. Mr. Sidda Reddy	Advocate	Member
5. Dr. Dinesh. G.P.	Prof. Dept. of MBA	Member
6. Dr. Suresh	Prof. & HOD, Dept. of Chem.	Member
7. Mr. P. Amareshayya	Administrative Officer	Member

> General issues related to class room teaching, library, e-sources, canteen, hostel, hostel mess and transportation has been resolved through appropriate counseling by the committee.

5.1.11 What are the institutional provisions for resolving issues pertaining to sexual harassment?

The Women welfare committee and Prevention of Sexual Harassment committee takes initiatives to look after the cases of sexual harassment of women students and related issues.

The existing committee comprises of chairman and other members.

However, no such incident has occurred in the College or in its premises.

SN	Name of the Member	Designation	Profession
01	Dr. U.Eranna	Chairman	Principal
02	Dr. K.S.R.Sridhar	Member	Vice Principal
03	Prof. K.M. Sadyojatha	Member	Professor-ECE
04	Dr. Rajashree Biradar	Member	Professor – ISE
05	Prof. Aradhana.D	Member	AP, CSE
06	Ms. Nidhi Jain	Student Member	Student
07	Mr. Mahesh Mattera	Member	Student – ME
08	D.Nagesh Shastry	Parent	Employee
09	Sub-Inspector of Police	Member	Sub-Inspector of Police

5.1.12 Is there an anti-ragging committee? How many instances (if any) have been reported during the last four years and what action has been taken on these?

Yes – The Anti-Ragging committee maintains a strict vigil in the campus, at bus-stops and buses to prevent ragging.

Also an anti-ragging squad is constituted which keeps continuous vigilance in all common areas/hostels etc. beyond college hours, to prevent the ragging incidents.

No major instances of ragging have been reported in the last four years.

A few minor cases detected have been resolved by the principal by counseling the students and involving the parents.

Structure of Anti-Ragging Committee:

SN	Name of the Member	Designation	Profession
01	Dr. U.Eranna	Chairman	Principal
02	Prof. Prithviraj.Y.J	Member	Dy. Director
03	Sri. P.Amareshayya	Member	Administrative Officer
04	Dr. V.C.Patil	Member	Prof. & HOD – ECE
05	Prof. C.N. Shariff	Member	Prof. & HOD – ISE
06	Dr. R.N.Kulkarni	Member	Prof. & HOD-CSE
07	Prof. B.S. Khened	Member	Prof. & HOD-EEE
08	Dr. G.P.Dinesh	Member	Dean – MBA
09	Dr. B.Hari Prasad	Member	Prof. & HOD – MCA
10	Prof. Aradhana.D	Member	AP, CSE Dept.
11	Ms. Vaishali B.J	Student Member	Student
12	Mr. Ananth S	Member	Student-ME
13	Mr. Gangadhar Rao M.S	Parent Member	Teacher
14	The Sub-Inspector of Police	Member	Sub-Inspector of Police

5.1.13 Enumerate the welfare schemes made available to students by the institution.

The institution has taken several welfare measures for the benefit of the students including Group Insurance scheme is available to all the students studying in the campus.

> Student motivational schemes like personality development program including soft skill and communication skills, with the help of specially trained counselors.
> Cash prizes for the merit students.
> Comprehensive placement training
> Medical aid on the campus.
> Sponsorship scheme to present the technical paper in National/ International conferences.
> The institute executes MOUs with leading industries for enabling the students to get the opportunity to do their project with the real time problem of the industry.
> The college also arranges for government scholarships for the students. In the last 04 years the college has disbursed a sum of Rs.5,60,70,852 to 2618 students.
> The infrastructures such as Bank Extension Counter, ATM, Pharmacy and Departmental Store are located within the campus for easy accessibility of the students.
> NSS programme for students – Plantation, Campus cleaning, Blood Donation, cloth donation to Missionaries, fund donation to needy, etc.

5.1.14 Does the institution have a registered Alumni Association? If 'yes', what are its activities and major contributions for institutional, academic and infrastructure development?

No, But, the college has a Alumni Association.

> Students are a part of the institution even after graduating.
> An alumni association keeps track of past students' career growth.
> Alumni Meet "Punarmilana" is organized every year.
> Members of alumni association often visit the institute and share their knowledge and experience.
> Alumni contribution: Members assist their juniors in seeking job by giving references and informing them time to time regarding the openings in their respective companies.
> They also present seminars on their domain of work to the students and make them aware of present day technology trends.

5.2   Student Progression

5.2.1 Providing the percentage of students progressing to higher education or employment (for the last four batches) highlight the trends observed.

Computer Science & Engg.

Student progression	Against % enrolled			
UG to PG	15 %			
PG to M.Phil.	--			
PG to Ph.D.	02 %			
Ph.D. to Post-Doctoral	--			
Employed	2011	2012	2013	2014
> Campus selection	68%	83%	69%	72%
> Other than campus recruitment	08%	13%	21%	--
Entrepreneurship/Self-employment	03%	--	--	--

Mechanical Engg.

Student progression	Against % enrolled			
UG to PG	10			
PG to M.Phil.	Nil			
PG to Ph.D.	01			
Ph.D. to Post-Doctoral	Nil			
Employed	2011	2012	2013	2014
> Campus selection	12 / 20%	11/ 20%	33 / 55%	55%
> Other than campus recruitment			02	02
Entrepreneurship/Self-employment				01

Electronics & Communication Engg.

Student progression	Against % enrolled			
UG to PG	13.5%			
PG to M.Phil.	-			
PG to Ph.D.	4.00%			
Ph.D. to Post-Doctoral	--			
Employed	2010	2011	2012	2013
> Campus selection	82.7%	85.4%	87.7%	94%
> Other than campus recruitment	5.3%	5.3%	1.4%	2%
Higher Studies	3.3%	3.9%	6.3%	4%
Entrepreneurship/Self-employment	-	-	-	-

Electrical & Electronics Engg.

Student progression	Against % enrolled		
	2010-11	2011-12	2012-13
UG to PG	03%	11%	01%
PG to M.Phil.,	-	-	-
PG to Ph.D.	-	-	-
Ph.D. to Post-Doctoral	-	-	-
Employed > Campus selection > Other than campus recruitment	-	-	-
Entrepreneurship / Self-employment	9.4%	38.98%	26.53%
	15 /56 (26.78%)	11/62 (17.74%)	14/60 (23.33%)

MBA

Student progression	Against % enrolled			
UG to PG	Nil			
PG to M.Phil.	Nil			
PG to Ph.D.	Nil			
Ph.D. to Post-Doctoral	Nil			
Employed	2010	2011	2012	2013
> Campus selection	93%	94%	57%	100%
> Other than campus recruitment	-	-	-	-
Entrepreneurship/Self-employment	-	-	-	-

MCA

Student progression	Against % enrolled		
UG to PG	Nil		
PG to M.Phil.	Nil		
PG to Ph.D.	Nil		
Ph.D. to Post-Doctoral	Nil		
Employed	2011	2012	2013
> Campus selection	03	0	02
> Other than campus recruitment	50	71	35
Entrepreneurship/Self-employment	-		

5.2.2 **Provide details of the programme wise pass percentage and completion rate for the last four years (cohort wise/batch wise as stipulated by the university)? Furnish programme-wise details in comparison with that of the previous performance of the same institution and that of the Colleges of the affiliating university within the city / district.**

B.E PROGRAMME

COURSE	2012-13	2011-12	2010-11	2009-10
CSE	97%	93%	89%	100%
ECE	93%	98%	90%	94%
ME	100%	85%	94%	88%
ISE	92%	89%	86%	98%
EEE	73%	89%	91%	--
BT	100%	100%	96%	100%

PG PROGRAMME

COURSE	2012-13	2011-12	2010-11	2009-10
CNE	100%	100%	100%	100%
DE	100%	100%	100%	100%
VLSI	100%	100%	100%	100%
MBA	62%	65%	60%	63%
MCA	100%	100%	100%	--

5.2.3 How does the institution facilitate student progression to higher level of education and/or towards employment?

Yes

> The Training and Placement Cell caters to the needs of the students from the third year onwards. It provides the necessary training in developing the soft skills, so as to equip them to excel in competing in the job market and face the interview committee with confidence.

> The students are facilitated with an in-campus coaching in personality development, aptitude and communication skills.

> The Training & Placement cell organizes on campus, off campus recruiting drives and job fairs for the employment of fresh graduates into national and multinational companies.

> In addition, the Training and Placement cell periodically organizes seminars on entrepreneurship development.

> The institution encourages the students to prepare for various competitive examinations through awareness programs.

> The college also offers various courses in communication skills in English and Proficiency tests on the lines of appearing for various competitive examinations.

> The department wise student data is provided in the individual department profiles.

> Soft skill training between 1st to 3rd year.

5.2.4 Enumerate the special support provided to students who are at risk of failure and drop out?

> The dropout rate is very less.

> The drop out is mainly due to their personal and economical and family related problems.

> The drop out indicates those students who have discontinued their study forever.

> Students who are at the risk of failure and drop out will be identified by the faculty advisors and provided special attention and counseling, special classes as a support for the student to learn more.

> Extensive counseling will be done by the faculty advisor concerned and also by external counselor.

> Parent of the students are also invited to the college to have positive discussion on their ward among the HOD, senior professors, faculty advisor concerned, the student to get the practical solutions to continue his studies in such a way the student to do well for his carrier.

> All the faculty to these students will show extra care on improving their studies.

> In addition to this, the following efforts are taken by the college in order to facilitate the students to complete the course.

  1. Mentoring classes.
  2. Expert classes.
  3. Parents meetings.
  4. Counseling.
  5. The attendance and IA marks for every student is sent to the parents via SMS.
  6. Provision to pay the fees in installments for needy.

5.3   Student Participation and Activities

5.3.1   List the range of sports, games, cultural and other extracurricular activities available to students. Provide details of participation and program calendar.

Our college students are given ample opportunities to participate in College level and intercollegiate Cultural/extracurricular and sports/games activities. At the Sports/ Games front, every year, college conducts atleast two or three VTU University/ Zonal level competitions. Our Students are regularly sent to University level Athletics meet and other Games competitions held throughout the year at different colleges.

A full-fledged Physical education department under qualified physical education team is established.

1) PET provides adequate training in athletics as well as specialized sports and games.
2) Participation in all university organized tournaments and also tournaments organized by other universities at state and national level is organized.
3) To have physical and mental fitness of students.
4) To create the awareness about the global sport events.
5) To develop the work, leadership, co-ordination, co-operation among the students
6) The sportsmanship among the students.

No. of Students of the college represented in State/University team

Academic year	No. of students participated
2012-2013	65
2011-2012	77
2010-2011	74
2009-2010	69

5.3.2   Furnish the details of major student achievements in co-curricular, extracurricular and cultural activities at different levels: University / State / Zonal / National / International, etc. for the previous four years.

The college encourages the students to take part in both co-curricular and extracurricular activities. The students are allowed to take part in various sports games, cultural and other extracurricular activities.

The list of those activities along with the achievements of the students is as below:

Name	Class	Academic Year	Represented in
Mr. Arjun	2nd Year-CSE	2013-14	Gulbarga Dasara Sports Meet Swimming & got 1st Place
Ms. Shruthi P	1st Year-CSE	2013-14	VTU-Hockey Team-University Blue
Mr. Arun Reddy	2nd Year-ECE	2013-14	VTU-Hockey Team-University Blue
Mr. Praveen Reddy	4th Year-ME	2010-11	VTU-Hockey Team-University Blue
Mr. Anil Kumar	4th Year-ME	2013-14	VTU 7 days National Integration Camp held at VTU, Belgaum
Mr. Ananth Bevinal	4th Year-ME	2013-14	VTU 7 days National Integration Camp held at VTU, Belgaum

The detailed list of participants in different activities is herewith annexed.

5.3.3   How does the college seek and use data and feedback from its graduates and employers, to improve the performance and quality of the institutional provisions?

> The college collects feedback from students of the UG departments. The same is discussed and analyzed in the general meetings held by head of the institution. Such feedback from the students provides valuable inputs for improving the support services.

> The departments are continuously interacting with the graduates of the department. Taking the suggestions from these graduates for the improvements in the Labs / Technology / or for the introduction of new course or new lab as a bridge courses which is required as per the industry requirement.

5.3.4   How does the college involve and encourage students to publish materials like catalogues wall magazines, college magazine, and other material? List the publications/ materials brought out by the students during the previous four academic sessions.

The institution involves and encourages students to publish articles in;

> College magazine, News letter and other related publications.
> Handouts and invitations to outreach programmes like blood donation camp, sports and cultural programmes etc.
>   * College News letter (MBA) every semester named "MY MITR"
>   * College Magazine Quarterly named "Bhoomika"

5.3.5   Does the college have a Student Council or any similar body? Give details on its selection, constitution, activities and funding.

The college does not have any students' council. We have Class Representatives (CR) in each class, which is based on selection and not by election. The selection is done by the HODs/ Professors of individual department.

5.3.6   Give details of various academic and administrative bodies that have student representatives on them.

The institute has the following bodies / committees in which student representatives are involved

> Magazine Committee
> News letter Committee
> Anti Ragging committee
> Prevention of Sexual Harassment Committee

5.3.7   How does the institution network and collaborate with the Alumni and former faculty of the Institution.

The faculty of the college maintains a good relation with the alumni association and any suggestions given by them regarding the academic improvement are considered by the management with due importance.

> Alumni meet is conducted every year through which network is maintained with the Alumni.
> Sometimes it also meets in places outside the campus for the convenience of the alumni.

> Department alumni coordinator has the details alumni and they will pass on any message through e-mail or phone.
> Former faculties of the Institution are invited to attend the conferences / workshops, etc.
> The alumni association paves way for the present students to have informal meets and interactions with the alumni which motivates and channelizes their concentration in various areas of knowledge and skills that need to be improved or enhanced.

Any other relevant information regarding Student Support and Progression which the college would like to include.

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CRITERION VI

GOVERNANCE, LEADERSHIP AND MANAGEMENT

6.1   Institutional Vision and Leadership

6.1.1   State the vision and mission of the Institution and enumerate on how the mission statement defines the institution's distinctive characteristics in terms of addressing the needs of the society, the students it seeks to serve, institution's traditions and value orientations, vision for the future, etc.?

Vision:
To be a Top Notch Educational Institution that Provides best of breed Educational Services by leveraging technology and delivered by best in class People in line with the Globalized world.

Mission:
To empower the Students with Technical and Managerial Skills, professional ethics and values, and an appreciation of Human Creativity and Innovation for an inquisitive mind.

Based on the mission, plans are formulated and actionized through ISO process. Regularly the ISO objectives are reviewed and necessary changes are made with the changing demands and industry resources are allocated by budgetary and implementing it.

Technical and managerial skills imparted through course work, extra value added courses, industry based courses and students encouraged to develop leadership skills by empowering them for various activities. Students are inculculated through syllabus and course studies and involved in R&D, paper publications.

6.1.2   What is the role of top management, Principal and Faculty in design and implementation of its quality policy and plans?

QUALITY POLICY (Objectives)
Ballari Institute of Technology & Management is committed to impart Quality Education as per AICTE, VTU and Govt. of Karnataka Norms. It aims at grooming talents and turning its students into top quality professionals with deep knowledge and strong ethics.

Ballari Institute of Technology & Management is committed to comply with the Quality Management Systems and Progress continually.

Objectives
> Our institution is committed to its motto of excellence, variety, and perfection in education and also to the nation's three-tier approach to higher education through expansion, excellence and equity for achieving rapid and inclusive growth.

> To foster value based education to the students through mentoring, counseling, guiding and developing them to be recognized as good personalities.
> To nurture students through various modes of learning.
> To enhance the students' employability skills and social opportunities by improving their understanding and command over the English language and soft skills training.
> To create an exposure in developing the competencies of the students in order to prepare them to face the challenges of the changing world.
> To focus on full-fledged research center and to encourage industry-academia interactions.

The top management takes utmost care in providing excellent infrastructure facilities and conducive learning environment to the faculty and students. The leadership in BITM is such that it motivates all its employees to contribute their best by providing a harmonious working culture. This harmonization is made possible only if education system takes stock of its own activities.

Hence to monitor the performance of the various activities of the institution, BITM follows the quality management system i.e., ISO 9001:2008. Design and execution of quality policy and plans are substantiated with the following.

QMS has various process measures for each activity of the department and the college as well. It substantiates the execution of all the plans.
> The placement cell takes care of developing professional competence and soft skills in every student.
> It invites trainers from various organizations to impart the necessary skills needed as per the industry requirement.
> To promote the institute-industry interaction, BITM has an overall industry objective leader and Training & Placement Cell team. They actively engage in activities for signing MOUs with industries and institutions.

6.1.3 What is the involvement of the leadership in ensuring:
> the policy statements and action plans for fulfillment of the stated mission.
  * Management takes responsibility to provide the facilities for learning and growth of the college by providing budget under various heads for improving its infrastructure.
  * They guide, initiate and persuade the staff to actively involve themselves in realizing the goals and objectives of the Management of the College.
  * The Principal coordinates with outside agencies like; AICTE, University authorities and other government bodies to comply with necessary regulations.
  * The Principal also follows an open door communication system and often allows the staff to come up with their constructive suggestions and grievances if any and goes out of the way to address them.

> formulation of action plans for all operations and incorporation of the same into the institutional strategic plan.
  * Based on the policy statements, the management strictly follows QMS ISO 9001:2008 to accomplish the strategic plans. This provides various templates (Process measures) for the various activities, so that the operations are recorded chronologically. These process measures are audited every year.
  * The action plans for operations are prepared under the supervision and guidance of the Principal and Heads of the Departments. Teaching Plans, time table arrangements, various committees are initiated into their defined roles in formulating and achieving the strategic plan.
> The action plan is strategized by budgetary and allocating resources to fulfill the plan.
> Interaction with stakeholders.
  BITM has created several platforms for interacting with its stakeholders as given below:
  * The Management and the Principal interacts on regular basis with stakeholders during the meeting of Staff, Students, Teacher-Parents Meet and Alumni Association.

> Proper support for policy and planning through need analysis, research inputs and consultations with the stakeholders.
  * The various Heads of the Departments and the Dean, review the progress for continuous improvement. Based on the employers feedback about the students placed in the preceding years, the students are given additional training in the areas for improvement as suggested by the industry / business community. For acquiring research projects and consultancy work, facilities are enhanced as required.
  * In order to improve the performance of the students, internal assessment methodology is frequently reviewed and modifications are implemented.

> Reinforcing the culture of excellence.
  * BITM always benchmarks itself against the best industry practices.
  * It channelizes the procedures and practices with respect to the prevailing external environment and hence proves to create an atmosphere as Center for Excellence.
  * The students are trained to take an initiative to act on opportunities, take responsibility, display a can do attitude, take ownership of problems.
> The toppers and high performers are recognized and awarded accordingly.
> Champion organizational change.
  The College pioneers in the field of changes in organizational set up by becoming an outward looking organization with focus on benchmarking against the best.

6.1.4 What are the procedures adopted by the institution to monitor and evaluate policies and plans of the institution for effective implementation and improvement from time to time?

The policies and plans of the college are monitored and evaluated by the Governing Body, the Principal, and the Heads of all departments of the college.

> The Institution mainly believes in spreading technical knowledge to the students to prepare them to meet the global requirements in terms of employability, research orientation and entrepreneurship etc., accordingly quality policy is developed.
> Teaching learning process is being monitored by number of theory classes and practical sessions conducted by the faculty.
> Students' attendance and internal marks are recorded. Corrective actions are taken whenever required by informing the parents, conducting retest, special classes etc.
> Faculty and students are sponsored and sent for presentations in national and international conferences, FDPs, workshops, seminars etc.
> Faculty and students are sponsored and sent for training programmes in industries. Students are sent for internships, implant training and industrial visits to other organizations. These are also recorded and improvised year after year.

6.1.5 Give details of the academic leadership provided to the faculty by the top management?

> College creates the standard of autonomy for the faculty in preparing lesson plan, implementing innovative techniques into their respective subjects. Principal and HODs design the calendar of events for the academic year specifying the activities to be held in college.
> The management encourages and supports the involvement of the staff in the improvement of the efficiency of the institutional process. The management through the head of the institution involves the staff members in various activities related to the development of the college.
> The staff members involve in various committees and strive for the betterment of students. College recognizes efficiency of the faculty and elevates their excellence with a token of appreciation on the occasion of Teachers Day.

6.1.6 How does the college groom leadership at various levels?

The College grooms leadership among the faculty members by giving them opportunities to work as heads of various committees involved in academic, curricular and co-curricular activities. This was done with an idea of exploring and nurturing contemporary ideas to excel the department in all possible dimensions. The proper implementation of the institutional policies and programmes is achieved through mutual understanding and appreciation.

6.1.7   How does the college delegate authority and provide operational autonomy to the departments / units of the institution and work towards decentralized governance system?

> The major decisions which have a bearing on the function and the goal of the college are thoroughly in the Governing Council.
> The college administration is decentralized to ensure the quality of educational provisions. Every member of the administrative staff is given charge of specific sections.
> The responsibilities of taking appropriate steps to ensure qualitative teaching and preparing the students to face the challenges of the modern world lie with the heads of the departments. They also manage their departmental work with the cooperation and assistance of their staff members and maintain departmental stock registers and other documents.
> Committees comprising teachers from different departments coordinate and conduct various activities and events in the college. The administration is decentralized for all academic activities. This paves way for the sharing of duties and responsibilities, binding all stakeholders in a positive interaction and building good human relations.
> The Administrative Officer supervises and coordinates the functioning of the accounts section, establishment section, examinations, purchases, student affairs and is accountable to the head of the institution.
> Regular meetings are conducted with the academic and the nonacademic staff by Principal. The suggestions and opinions of the staff members are considered.
> The departmental meetings are conducted by the HOD's with the teaching staff focusing on improving the academics, co-curricular and extra curriculum activities. Various works are imparted to the faculty, timetable, teaching plans, lesson plans, course material, which is reviewed by the HOD's.

All these steps ensure that effective decentralization of powers to Heads of Departments and Committees pave the way for efficient administration.

6.1.8   Does the college promote a culture of participative management? If 'yes', indicate the levels of participative management.

YES.

The College promotes a culture of participative management. The management of the College rests with its Governing Body, whose member, are appointed in accordance with the guidelines provided by the AICTE. The Principal is the academic head of the Institution and also the Member Secretary of the Governing Body.

The Heads of Departments are responsible for the day-to-day administration of the Departments and report directly to the Principal. Additionally, the College has a number of Committees, which play an important role in various institutional functions.

> Academic Audit (Internal Quality Assurance) Cell
> Academic Committee
> Academic Review Committee

> Alumni Committee
> Anti-Ragging and Disciplinary Committee
> Budget Committee
> Building Maintenance and Electrical Maintenance Committee
> College Advisory Committee
> College Day Committee
> College News Letter / Magazine Committee
> Consultancy
> Counseling Committee
> Departmental Societies / Forums
> Entrepreneurship Cell
> Examination Co-ordinator
> Finance Committee
> Hostel Committee
> Interview Committee
> ISTE Chapter
> Library Committee
> NAAC Committee
> NBA Committee
> Parent Interaction Cell
> Planning, Monitoring and Purchase Committee
> Research Committee
> Sports and Physical Education Department Committee
> Training and Placement Committee
> Transport Committee
> Women Welfare and Preventions of Sexual Harassment Committee

These committees meet regularly and discuss the agenda items as per their terms of reference. The minutes of these meetings are recorded and sent to the management for consideration and implementation.

The Management is always open to discussion with the teaching and nonteaching staff which, in turn, encourages the involvement of the staff for the improvement of effectiveness and efficiency of the institutional process.

6.2   Strategy Development and Deployment

6.2.1   Does the Institution have a formally stated quality policy? How is it developed, driven, deployed and reviewed?

Yes, the BITM has a formally stated quality policy. The Quality policy is derived and aligned with respect to the vision and mission of the institution stated above.

Quality policy clearly states the objectives of the institution, their process of progress towards the achievement of objectives and its contribution to the society. All these strategies are monitored by the institutes Academic Committee that meets every couple of months to decide on academic quality control issues.

All these processes are standardized over a period of time with the help of process measures using ISO. Every semester these processes are reviewed and the necessary corrections are incorporated and based on industry and governmental requirements.

6.2.2 Does the Institute have a perspective plan for development? If so, give the aspects considered for inclusion in the plan.

Yes - The institution works with a global focus on the continuous improvement of the physical and academic excellence and infrastructure of the college, faculty and students both qualitatively and quantitatively.

The college proposes to start more post graduate courses and degree programmes in the campus.

Keeping this in view, we have been insisting the faculty members to attend/participate various sponsored FDP and workshops.

We also propose to develop our infrastructure to the international standards by the next five years. We also wish to harvest solar energy for the functioning of the college.

The following are the key plans of the institution for the next five years.
1. To develop more faculty as Research holders of the department.
2. Develop the infrastructure to world standards.
3. Raise the college infrastructure to a research centre of the university.
4. Attract funds for research projects and academic programmes.
5. Complete the construction of the auditorium.
6. Continuously provide placements.

6.2.3 Describe the internal organizational structure and decision making processes.

The institution functions based on various agendas set. Each agenda is worked upon and propagated with the help of various committees like Board of Trustees, Governing Council and from the faculty end.
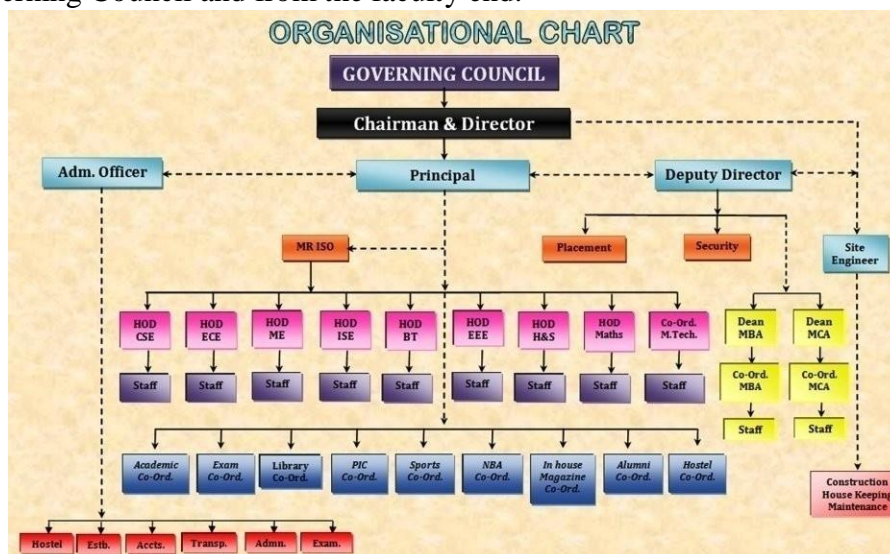
6.2.4 Give a broad description of the quality improvement strategies of the institution for each of the following

> **Teaching and Learning**
> * The requirement of staff is assessed as per AICTE norms and appointed through the staff selection committee.
> * The staff is exposed to Faculty Development Programmes w.r.t. outcome based education.
> * Teachers are guided to prepare the course plan / teaching notes and method of teaching by Heads of the Departments and other senior faculty.
> * All the teachers are exposed to use of OHPs and LCDs.
> * Students are tuned to be more regular to the class work and prepare their subject wise notes.
> * Students are exposed more for hands on skills through laboratory experiments and industrial visits / training / tours.
> * The amount of knowledge gained by the students is assessed frequently through periodical tests, objective tests, mid examinations and laboratory tests etc., based on the assessment the needy students are provided with additional teaching classes / bridge courses / laboratory classes etc.,

> **Research and Development**
> * Infrastructure facilities like; well equipped laboratory for student learning as well as for faculty research are made available. The equipments and consumables are purchased often, as and when required to strengthen research activities.
> * The library is also well equipped with required titles and volumes of text books, e-journals, computer hardware and software for conductive learning.
> * Students and faculty members are sponsored for presentations in conferences hosted by other institutions both domestic and in abroad. Most of the existing departments have obtained the status of research centre which will help in establishing hard core research activities, supervising and awarding PhDs.

> **Community engagement**
> The college is known for its social commitment to serve the society and nation. The services rendered by the college to the community are as follows:
> * Inviting the eminent personalities of the locality from different sections of the societies to the various programmes organized in the college
> * We have conducted number of community oriented programmes like Blood donation, Health camp, HIV awareness, Pulse-polio, Clean and Green, General Hygiene, NSS special camp. Our management also caters to the welfare of the rural and under privileged people by extending services like Orphanage, Care of disabled people, etc.

> **Human resource management**

The institute takes care of its human resources. Employees are given utmost importance and their needs are recognized well. The service rules are made transparent and they are benefited with PF, Gratuity, ESI etc.

The faculty and staff are entitled with other benefits like CL, EL, ML, adequate vacation, in-house dispensary etc. The salary is credited to the salary account of the employees on the first week of every month.

The institution frequently arranges for training programmes in-house and also deputes to other organization for acquiring balanced skills (technical skills, teaching skills, soft skills etc.) from all dimensions. Every time equipment is purchased and installed, software is purchased and installed, the department arranges for a demo session by the supplier.

The institute encourages quality improvement programmes and deputes faculty on leave for higher education. Their progress is monitored and based on their achievements incentives are paid, accounted during their appraisal based on which promotions are implemented.

> **Industry interaction**

The institution has an institute industry interaction cell through the Training and Placement Cell headed by the Chief Training and Placement Officer. They promote industrial training for the students. Students are sent for internship programmes to industries.

Every academic year it is made sure that the students are taken for industrial visits. Both UG and PG students are motivated to undertake their end semester project in the relevant industries of their domain, thus exposing and preparing them to meet the real time requirement in the industry.

6.2.5 How does the Head of the institution ensure that adequate information (from feedback and personal contacts etc.) is available for the top management and the stakeholders, to review the activities of the institution?

The management and head of the institution (principal) are always in interactive mode with each other. The head of the institute ensures that adequate information related to the teaching staff as well as non-teaching staff is collected in the form of feedback and through confidential report and self- appraisal reports.

The Head of the institution also obtains feedback through periodic meetings with the head of the departments and their staff. The feedback is forwarded to the management by the head of the institution through formal and informal meetings with it.

The Managing Committee regularly visits the college and interacts with the staff individually and through the staff meetings. Feedback through formal and informal meetings with the stakeholders is received by the Principal and necessary feedback is conveyed to the Management.

The Executive Committee Meetings are held to take stock about department by the Management.

The said information is made available for the management to review the activities performed / carried out and also the contributions made to the students in particular and the society in general by the faculty.

6.2.6 How does the management encourage and support involvement of the staff in improving the effectiveness and efficiency of the institutional processes?

> The Management plays an important role in motivating the faculty for academic progress and efficiency. The faculty members of the college are being encouraged by the management for their personal and keen involvement in day to day activities.
> The faculty members are encouraged to participate and organize seminars, workshops, conferences and engage in research works.
> The faculty members are given periodic training like orientation and refresher courses to improve their performance.
> They are also provided with extra benefits for securing Ph.D. degrees and publication of research article.
> Most of our faculty members are engaged in doctoral researches and project works.
> Heads of Departments play an important role in advising the Principal and Management on matters of academic administration, student affairs and any other matter referred to them.

All these steps ensure that effective decentralization of powers to Heads of Departments and Committees pave the way for efficient administration.

6.2.7 Enumerate the resolutions made by the Management Council in the last year and the status of implementation of such resolutions.

Summary of resolutions made during the meeting on 14th Dec 2013 by the Governing Body

Resolution	Action taken
To note the Proceedings of the 26rd Governing Body Meeting held on Saturday, 29th June, 2013.	Noted and approved.
To note the Audited Balance Sheet as on 31.03.2013.	Noted and approved.
To approve the Revised Budgetary Plan for the financial year 2013-2014.	Noted and approved with few advises.
To note and approve the Appointments, Promotions and Resignation of the staff from 01.06.2013 to 31.10.2013.	Noted and approved.
To discuss regarding Admission and future actions with respect to Admission Policy for the academic year 2013-2014.	Members noted the different admissions for the year 2013-14 and discussed about the subject.

To pass a resolution with regard to Closure of ISE, Increase in Intake and Introduction of New Courses both at UG and PG for the academic year 2014-15.	The members unanimously passed the resolution. Copy enclosed.
To review the Results of the Even Semester.	Discussed.
To review the academic activities of the Odd Semester.	Noted and approved
To note and approve the Major Equipments purchased from 01.06.2013 to 31.10.2013.	Noted
To discuss with regard to building progress and expenditure including other developments.	Members noted the building progress and discussed.
To discuss with respect to the Government Grants i.e., MODROBS and VGST.	Members noted the same.
Establishing of Independent Alumni Association of BIMT.	Noted and approved
Any other subject with the permission of Chair.	Enclosed.

Copy of the Governing body minutes of meeting enclosed as Appendix

6.2.8 Does the affiliating university make a provision for according the status of autonomy to an affiliated institution? If 'yes', what are the efforts made by the institution in obtaining autonomy?

Yes.
> The affiliating University has a provision for according autonomy for an affiliated institution.
> The institution has applied for permanent affiliation, which is mandatory step for obtaining autonomy and three courses are already permanently affiliated to the VTU and for the year 2014-15, the college has applied for other courses for permanent affiliation.
> Three courses i.e., ECE, CSE and ME offered by BITM are already accredited by the National Board of Accreditation and the institution has to apply for renewal of the same in addition to applying for accreditation of the remaining eligible courses.
> As a part of this process the institution has also applied to NAAC for accreditation.

6.2.9 How does the Institution ensure that grievances / complaints are promptly attended to and resolved effectively? Is there a mechanism to analyze the nature of grievances for promoting better stakeholder relationship?

Institute has constituted a Grievance Redressal Committee. This committee discusses the matter with Principal to solve the problem. The cell works towards the welfare of the staff and redress the grievance that hinders the smooth flow of work.

6.2.10 During the last four years, had there been any instances of court cases filed by and against the institute ? Provide details on the issues and decisions of the courts on these?

During the last four years, there have been NO instances of court cases filed by and against the institute.

6.2.11 Does the Institution have a mechanism for analyzing student feedback on institutional performance? If 'yes', what was the outcome and response of the institution to such an effort?

The institute has a clearly set and defined mechanism of obtaining the feedback from the students to improve the performance and quality of the institutional provisions. The principal and the HOD / staff members collect the feedback from the students, alumni and parents in different meetings. The inputs are used to improve the overall competency of the students for employability.

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 institution has a policy of encouraging professional development of faculty and supporting staff listed below:
> Permitting study leave to faculty for carrying out research projects.
> Granting On Official Duty (OOD) leave for paper presentation and participation in Seminars/ Workshops/ Conferences.
> Giving financial support for participation in Seminars/ Workshops/ Conferences.
> Faculty members are encouraged to associate with State, National and International professional bodies, like; ISTE, etc.
> Providing latest study materials including e-Journals to the faculty members through the central library.
> The Institution encourages staff for their academic enrichment by making them to participate in Orientation Programmes, Refresher Courses, Seminars, Workshops and Conferences.
> The college provides Laptop / Computer with Wi-Fi Internet facility.
> Special training sessions for the use of multimedia aids in teaching learning were conducted for the 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.,
> Non teaching staff is guided by the senior staff in the upkeep of the laboratories and handling the equipment.

6.3.2 What are the strategies adopted by the institution for faculty empowerment through training, retraining and motivating the employees for the roles and responsibility they perform?

The institution organizes the induction program for the newly recruited faculty at the beginning of every semester. The college rules and regulations, working principles, and other strategies adopted for effective functioning of academic committees are briefed by the chief mentor, Principal, deans and HOD's

The management aims at conducting many training programmes for the faculties like; Faculty Development Programmes and other programmes and all the staff members are encouraged to attend seminars and workshops and keep in touch with latest theories and concepts on their subjects. Staff is permitted to go for QIPs.

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.

An effectively designed staff appraisal system is in practice. Performance Appraisal form comprises of multiple activities concerned to academic achievements and over all performances.

Every year confidential reports are generated for every faculty as a process of performance appraisal. The template for self appraisal contains of three parts. The first part will be filled by the faculty themselves giving their details of achievement for that year. The second part will be filled by the heads of the departments evaluating the performance of the faculty in various dimensions. Here all the activities of faculty like pass percentage of the theory and practical subjects handled and are considered for evaluation. The third part will be filled by the Principal and forwards the same to the Management for further needful action. These views are discussed one to one with the faculty and with respect to their performance their areas of improvement are suggested.

The following points are taken into consideration for better appraisal:
1) Classroom teaching is monitored daily by the Dy. Director / Principal/ VP / Dean
2) Feedback from the students.
3) Self evaluation by the faculties.
4) Collecting confidential feed back by the Management.

6.3.4 What is the outcome of the review of the performance appraisal reports by the management and the major decisions taken? How are they communicated to the appropriate stakeholders?

> Based on the Performance Appraisal and the outcomes of the performance, the staff is given increments and in some cases additional monetary benefits are provided to the deserving candidates.

> For certain achievements appreciation letters are given.
> The achievements are announced to the concerned staff through letters or in appropriate meetings.

6.3.5 What are the welfare schemes available for teaching and non teaching staff? What percentage of staff have availed the benefit of such schemes in the last four years?

Our management has provided to its faculties number of welfare measures like,

> EPF - Paid as per PF Act to all the employees.
> Gratuity – Paid as per Gratuity Act.
> ESI Scheme – Employees drawing less than Rs.15,000/- PM. They are covered under ESI and can avail this benefit directly with ESI Clinic/Hospitals.
> Personal Accident Insurance benefit.
> The children of both teaching and non-teaching staff are given education in Basavarajeswari Group of Institutions with a subsidized fee.
> Maternity leave is also provided.
> Festival /Special Advance for all the eligible employees – (Interest free).
> Subsidized transport to staff.
> Organization of sports and cultural activities in which all staff can participate.
> Group insurance scheme for staff members.
> Financial assistance for higher studies.

6.3.6 What are the measures taken by the Institution for attracting and retaining eminent faculty?

The college provides the right ambience to nurture the competent staff;
> The salaries offered and the annual increments, commensurate with qualification, performance and experience;
> The staff is continuously encouraged to enhance their qualifications and advance professionally;
> Staff is encouraged to participate and present papers at the national and international conferences.
> Annual incentives are provided for regular staff.
> These are some of the strategies to retain the talented staff.
> Gratuity is provided to the faculty.

6.4 Financial Management and Resource Mobilization

6.4.1 What is the institutional mechanism to monitor effective and efficient use of available financial resources?

Every department will prepare the advance budget required for the next academic year in terms of obtaining lab equipment, laboratory facilities and infrastructure and up-gradation of computational systems.

Annual budget is allocated to the institute as ratified by the management is available to each department as per their requisition given in proposals. Each department comprises to two components: Non-recurring and Recurring.

Non-Recurring: For any purchase against non-recurring head, the institutional purchase committee evaluated the proposals and short lists prospective vendors after thorough analyzes technically as well as financially. Based on the recommendations of purchase committee, short listed vendors are issued with purchase orders and the requested special equipments are purchased.

Recurring: Under recurring head, departments give a list of items/consumables to be purchased to the office of the principal and the same is purchased through purchase department. Request for maintenance / servicing of equipments is processed either through Annual Maintenance Contract (AMC) or the purchase department.

> The budget received from various departments is consolidated and normalized based upon the total income anticipated through the students' tuition fee.
> Departments are encouraged to obtain grants through MODROBS, consultancies, from AICTE, VTU, Govt., etc.,
> While utilizing the funds the expenditure involved in procuring the equipment is collectively negotiated by a committee consisting of Chairman / Principal, Head of the Department, Administrative Officer and faculty in-charge for the Laboratory.
> Staff is also instructed to make use of the equipment for more number of batches within the college time frame work.
> Inter department coordination is encouraged for the effective usage of lab equipment, seminar halls etc.,

6.4.2 What are the institutional mechanisms for internal and external audit? When was the last audit done and what are the major audit objections? Provide the details on compliance.

The institution is having qualified practicing charted accountant "M/s. T.C. Goud and Co" as internal and external auditors who are auditing the accounts of the college twice in a year. After the audit, the report is sent to the management for review. The auditors are appointed by the board of trustees in the trust board meeting. There are not major audit objections.

Last audit was done on 31.03.2014 and as on date there is no adverse remark on the accounts of the institution. The college is filing online income tax return every year within the stipulated time. Since the institution is approved by ISO 9001:2008, the workings and functionalities are audited by ISO auditors also. ***The audit reports for the last three years are enclosed as Annexure.***

6.4.3 What are the major sources of institutional receipts/ funding and how is the deficit managed? Provide audited income and expenditure statement of academic and administrative activities of the previous four years and the reserve fund /corpus available with Institutions, if any.

The major sources of institutional receipts/funding are
> Students tuition fees
> Funding received from various agencies towards research projects
> Funding received from AICTE towards MODROBS projects
> Funding received from VGST towards establishment of Center of Excellence (COE)
> College closely monitors the expenditure so that the excess cash other than cash for urgent requirement will be kept as short term deposits to increase the fund flow.
> The institution also avails short term loans/ MCC loans from the IOB for infrastructural development activities.

This institution has not experienced with any financial deficit during the last 4 years.

6.4.4 Give details on the efforts made by the institution in securing additional funding and the utilization of the same (if any).

During the year 2010, the institution has acquired loan from bank generating Rs.2.50 crores for the purpose of construction of additional buildings, library and class rooms. The institution has settled the loan on 05.02.2014. Using this fund, the college has constructed around 7681.85 square meters i.e., Admin and PG Block consisting of Library, Administrative Block, MBA Block, MCA Block, Auditorium, etc.,

6.5 Internal Quality Assurance System (IQAS)

6.5.1 Internal Quality Assurance Cell (IQAC)
   a. Has the institution established an Internal Quality Assurance Cell (IQAC)? If 'yes', what is the institutional policy with regard to quality assurance and how has it contributed in institutionalizing the quality assurance processes?

   Yes. The college is a certified ISO organization. The vision and mission is stated in 1.1.1

   b. How many decisions of the IQAC have been approved by the management / authorities for implementation and how many of them were actually implemented?

   All the decisions are taken in the ISO Management Review Meeting are presented to the governing council by the Principal and after through review the same has been implemented.

c. Does the IQAC have external members on its committee? If so, mention any significant contribution made by them.

NO - External members are carrying out the ISO audit every year and also for the renewal of the certificate

d. How do students and alumni contribute to the effective functioning of the IQAC?

In the Employability Objective of ISO, the students also give input to the Chief Placement Officer and necessary mock training and new methods of improving the employability have been brought in.

e. How does the IQAC communicate and engage staff from different constituents of the institution?

Internal audit is carried out by the members drawn from all the departments who have also being sponsored by the college to undergo Lead Auditor course and other courses as necessary.

6.5.2 Does the institution have an integrated framework for Quality assurance of the academic and administrative activities? If 'yes', give details on its operationalisation.

Yes, the necessary control is done through Academic Committee which meets periodically to ensure quality and delivery as per stipulations specified by the affiliating University.

6.5.3 Does the institution provide training to its staff for effective implementation of the Quality assurance procedures? If 'yes', give details enumerating its impact.

The college encourages the selected faculty on a regular basis to undergo the audit courses to enable them to perform the internal audit impartially. New employees are taken on this job and undergo training. Employees are encouraged and sponsored for the lead auditor course, if required.

6.5.4 Does the institution undertake Academic Audit or other external review of the academic provisions? If 'yes', how are the outcomes used to improve the institutional activities?

Yes. The institute undertakes academic audit which is controlled by student feedback and use of lesson plan. Every teacher is advised to keep track of teaching using Course Plan at the beginning of the semester. This is cross checked with the details provided in their Weekly Report and self appraisal questionnaire that is used as a tool for assessment during decision of increment.

6.5.5   How are the internal quality assurance mechanisms aligned with the requirements of the relevant external quality assurance agencies/regulatory authorities?

Every six months an audit is carried out either by internal or external auditors. The observation, opportunity for improvement and non conformity cited by the auditors are rectified at the earliest. It is pertinent to mention no serious non conformity has been cited over the last few years.

6.5.6   What institutional mechanisms are in place to continuously review the teaching learning process? Give details of its structure, methodologies of operations and outcome?

HoD allots the subjects to the faculty as per their specialization. The faculty members are requested to submit the Lesson Plan and notes of lesson before the commencement of the semester this will be verified by the HoD. Continuous Class Tests/ Internal Test, Assignments, seminars as a part of the timetable and parent teacher meeting, Class counseling, etc., are the measures in vogue to review the teaching learning process.

6.5.7   How does the institution communicate its quality assurance policies, mechanisms and outcomes to the various internal and external stakeholders?

The Institution communicates its quality assurance and performance through the prospectus of the college, college magazine / news letter, college website and notice boards.

Any other relevant information regarding Governance Leadership and Management which the college would like to include.

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CRITERIA VII INNOVATIONS AND

BEST PRACTICES

7.1   Environment Consciousness

7.1.1   Does the Institute conduct a Green Audit of its campus and facilities?

Yes – The institution takes keen interest in maintaining the campus ever green, fresh with buoyant atmosphere. As the college is located in a dry area measures are taken to maintain the garden in the proper way. Due to the keen interest evinced by the Chairman of the institution several trees and plants are planted. Separate gardener and watchman are in charge of maintaining the green campus.

7.1.2   What are the initiatives taken by the college to make the campus eco-friendly?

> **Energy conservation**
  * All floors are checked if lights, fans, and ACs are unnecessarily on.
  * Stickers promoting an encouraging switching of lights and fans is put up at every level to save power.
  * Use of Solar energy for internal usage is planned.
  * Solar street lights are provided.

> **Use of renewable energy**
  The institution advocates the use of Solar Power in the hostels for cooking and heating purposes.

> **Water harvesting**
  Planning for water harvesting.

> **Check dam construction.**
  Not Applicable

> **Efforts for Carbon neutrality**
  Solar water heaters are installed in the hostel to reduce the Electrical energy consumption and thereby it reduces the emission of carbon dioxide.
  * All the incandescent bulbs are replaced with CFL.
  * Presence sensor installed in rest rooms.

> **Plantation**
  A lot of expenditure is incurred to keep the campus environment green. For this, the College support staff is working wholeheartedly. Trees are planted and nurtured. The College organizes programmes through NSS every year to inculcate this tradition amongst its students.

> **Hazardous waste management**
> The sanitary napkins, batteries and other hazardous wastes are disposed off. The Institute has tie up with the local Corporation for the disposal of wastage of different types.

> **e-waste management**
> The institution practices effective e-waste management techniques by disposing off the e-junk in the prescribed manner.

7.2   Innovations

7.2.1   Give details of innovations introduced during the last four years which have created a positive impact on the functioning of the college.

> State-of-the art infrastructure is developed updating library, computer/ internet/ Wi-Fi and laboratory facilities.
> Department invites eminent scholars, academicians and industrialists for guest lectures.
> Department associations organized symposia, conferences and guest lectures
> Feedbacks are periodically collected from the student on teacher's performance, infrastructure and support services to identify the problems and necessary actions.
> Mentoring classes are conducted for improving the academically weak students.
> Industrial visits are arranged, periodically, by the departments to give the students a practical knowledge and exposure to industrial practices.
> Students are motivated and sponsored to participate and present papers in national and international conferences.
> Mock placement interviews are conducted by the real HR professionals of the industries, who are going to recruit them in the next 6 months.
> Personality development programmes are organized to improve soft skills of the students.
> Various committees such as grievance redressal cell, Sports Committee, anti raging committee, to ensure effective functioning of the college.
> Planning of Curricular Calendar Maps to achieve greater integration of instruction and make lesson planning more effective.
> Encouragement to faculty research by supporting presentation of papers at seminar and conferences.
> Use of multimedia learning resources and learning strategies like student seminar, discussion, collaborative learning and interdisciplinary teaching to create a rich classroom environment.
> Alumni Association has been formed to maintain the relationship between the college and old students.
> MTLC lab is introduced for interdisciplinary project.
> Outcome based education using innovation teaching techniques.
> Free lab slots are used for small projects.
> Each faculty is assigned with 25 students for mentoring.

The key factors that attract students and stakeholders are:
> Semester system
> Wide choice of courses
> Well placement records
> Excellent academic ambience
> Emphasis on computer learning and soft skill development
> Well maintained discipline
> Centrally located campus
> Hard-working and dedicated faculty members
> Teacher-student relationship
> Good infrastructure
> Placement and Career counseling
> Good library facility with internet and wide range of books
> NSS, Sports and extra-curricular activities

7.3 Best Practices

7.3.1 Elaborate on any two best practices in the given format at page no.98, which have contributed to the achievement of the Institutional Objectives and / or contributed to the Quality improvement of the core activities of the college.

1. **Title of the Practice:** To enhance research potential of faculty members.

2. **Goal:** The aim of this particular practice is to provide necessary infrastructure, human resources and motivation to nurture the research competencies among the faculty members.

3. **The Context:** The College offers 10 UG and 10 PG degree programme in various engineering departments. It is the responsible of faculty members to inculcate effective learning methodology in their students to understand various engineering concepts. To accomplish this, they need to be creative and innovative in their approach to teaching / learning activities and should possess holistic idea about the subjects what they taught, which requires some level of research competencies in the teaching faculty members.

4. **The Practice:** The Institution –Industry interaction cell has been established. The institution encourages the faculty members to publish the research papers, attending national/ International conferences and to carry out consultancy work. The faculty members are encouraged by providing the cash incentive to those who publish research articles in national/ International journals. They were sponsored to attend the national/ International conferences in India/Abroad. The cash incentives are provided to those faculty members who are doing the consultancy work based on the amount and nature of work. As many as 10 MoUs have been signed between the institution and various industries to carry out the research and consultancy activities. MoUs are also signed between foreign

Universities also to expose the faculty members to the current research areas.

5. **Evidence of Success:** The number of Ph.D., degree holder in the institution has been increased considerably. The results of above said practice increases the number of papers published by the faculty members. A lot of research projects have been sanctioned to our institution for doing the research by the faculty members.

6. **Problem Encountered and Resources Required:** The staff members are finding it difficult to find the time to carry out this type of activities due to their academic commitment. Quarters are in proposal, to encourage the staff members to stay in the campus to carry out the research activities. Laboratories, e-learning facility and computer aided packages are required for which contribution from the Management and money collected from sponsoring institution have been used.

1. **Title of the Practice:** Monitoring the Incremental Academic growth of the students

2. **Goal:** To identify the academically weak students and assess the reasons for their poor performance. These weaknesses should be studied and proper remedial action is to be taken to address these problems. The counselors have to monitor the academic progress of the students identify their area of weakness like analytical, theoretical, practical etc., and after discussions and deliberations decide on the remedial measure that is to be adopted. It is not necessary that the reason for the problem is with the students or their academic back ground. In some cases it may even be due to the social background, economic background etc., in such cases personal counseling has to be done to ensure that they overcome the difficulty.

3. **The Context:** The state of Karnataka being a state depending on agriculture as its main source of income, many of the students hail from a rural background. Quite a few of them have completed up to their higher secondary education in Telugu medium and find it difficult to adapt to the English medium of instruction. Added to that is their fear of city culture, imbalance in academic background of peers, hesitation in asking for guidance or help in studies or personal counseling etc., These students when not given the helping hand, tend to drop back in their academic grades and eventually there is the chance of even dropping out of the course. So the management of BITM decided to address these issues by formulating a personal mentor system so that such students get the required guidance from the staffs and also the system of peer to peer helping in the hostels also provided them the necessary moral and emotional support that they needed most.

4. **The Practice:** The continuous academic monitoring system helps the faculty in recording the academic progress of each and every student. Also the mentoring system adopted, where in every faculty is in charge of 15-20

students and acts as a mentor for those students, so that they can approach their respective faculty in case of any academic / personal help. This personal mentoring system helps the faculty in identifying the academically weak students. Those students are called for personal counseling and the mentor tries to understand the nature of the problem faced by these students. On analysis it has been found that the reason for the poor performance of these students is of two types. One may be due to their academic background and the other may be due to their economic and social background.

While analyzing the academic reasons it has been found that Students who have completed their schooling in Telugu medium find it difficult to understand the technical concepts which are taught in English. This problem when left unaddressed leads to lack of interest in the subject, which reflects on their end semester results and in worst cases may even lead to drop outs. Such students who have not been able to have their schooling in English medium are given special coaching in English. These English coaching classes are conducted after class hours. This is supplemented by peer to peer teaching where in hostels, a separate study hour is allotted during which the students are encouraged in group studies. This concept helps in not only creating a better rapport among the students but also helps them in understanding the concepts well because they may find it easy in asking the help of their friends in studies. Incidentally the students predominantly are from weaker and disadvantaged section of the society. The financial constraints faced by the students also have its effect on their academic performance. When the mentors come to know of such difficulties they suggest the students about the external financial options that are available like, bank loans, Government scholarships etc., In a few cases the Management also sponsors the education of such students through scholarships and freeships. The performance of the students in the class is recorded semester wise in the department and as stated, the faculty members care for the academically weak students by way of personal counseling and mentoring. When identified at the beginning of the course and in some cases even before that (with the help of analysis of their performance in higher secondary examinations and class room interaction during the bridge courses), it becomes easier to bring them to the main stream and instill a sense of confidence in them so that they can perform well in their subsequent semester examinations.

5. **Evidence of Success:** Provide evidence of success such as performance against targets and benchmarks and review results. What do these results indicate? Describe in about 200 words.

The practice of monitoring the incremental academic growth of the students has been adopted by BITM for the last six years. Every year at the beginning of the academic year the students are counseled by the faculty and the HOD also addresses them. It has been noted that the academic performance of students has always been on the rise and the result analysis done every semester is a proof of it. The result analysis not only give the data about the performance of the students during the semester exams, but

also on analysis the faculty will be able to judge whether a particular student is good in analytical or theory subjects, what kind of remedial measure is needed to solve his problem etc., Every semester the faculty is encouraged to achieve 100% results in their respective subjects. However, as it is not practically possible to achieve the same, the management ensures that the motivation factor is not lacking in the faculty, by means of cash rewards and certificates of appreciation to staff members who secure maximum results in their subjects. The management has clearly understood that the process of achieving good academic results is not only in the hands of the students and faculty, but also the backing of the management plays a major role in achieving the same. In this context the management provides additional help in the form of incentives to better performing staffs, refreshments to faculty who engage in extra coaching classes, milk and tea to hostel students during the study hours, power back up for the hostels and the college during the coaching classes etc.,

The review of the results has shown that the students have performed better as the course progresses and there has been an incremental academic growth in their performance.

6. **Problems Encountered and Resources Required:** Please identify the problems encountered and resources (Financial, Human and other) required to implement the practice in about 150 words.

The monitoring of the incremental academic growth of the students is a success story of BITM and all the other institutions of our group are now following our footsteps in implementing this system. However as every success story has a turbulent phase, so also this system when implemented had its own share of problems like
> Non co-operation from the students in accepting the study hours at the hostel
> Hesitation on the part of the rural students to mingle with their city counterparts.
> Lack of self-belief and motivation among such students.
> Faculties finding it difficult in staying back after college working hours.
> Transportation problems for the faculty and day scholar students.
> These problems were overcome by the management by adopting various measures like
> Counseling the students and making them understand the importance of overcoming the demon inside them that prevented them from accepting the additional study hours at the hostel.
> Personality development sessions for the rural students.
> Motivating the faculty by financial rewards and certificates of appreciation.
> Providing free transport to faculty and day scholars who stay back after college working hours.

7. Notes (Optional)

The system of monitoring the incremental academic growth of the students is a flagship model of BITM and all the other institutions of our group are following this example. It has to be understood that when this system was introduced there were a few problems faced by the management as mentioned above. However these problems were overcome by the strong belief of the management on its systems and practice, guidance of the Principal and other senior faculties, support of the faculty and students. When the above stake holders are convinced about the workability and implement ability of a system then it can be assured that the results will surely be there for everyone to see.

Any other information that may be relevant and important to the reader for adopting/ implementing the Best Practice in their institution (about 150 words).

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8. Contact Details

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